IONA MCGREGOR FIRE PROTECTION AND RESCUE DISTRICT

COMMUNITY RISK ASSESSMENT STANDARDS OF COVER

2026 Update

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IONA MCGREGOR FIRE PROTECTION AND RESCUE DISTRICT

Fire Chief, Seth Comer

COMMUNITY RISK ASSESSMENT-STANDARDS OF COVER

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First Addition: 2021
Revised: APRIL 2026

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Introduction

This study serves as the Iona McGregor Fire Protection and Rescue District's (IMFD) Community Risk Assessment and Standards of Cover (CRA-SOC). The Commission on Fire Accreditation International (CFAI) defines the Standards of Cover for a fire department as the "written policies and procedures that establish the distribution and concentration of fixed and mobile resources of an organization" (CFAI, 2016).

Every community is unique and presents its own hazards, risk reduction challenges, emergency services demand, and resources to mitigate fire and non-fire risks. The purpose of this study is to evaluate the unique risks of the community, assess current deployment and performance, and develop a plan for maintaining and improving response capabilities.

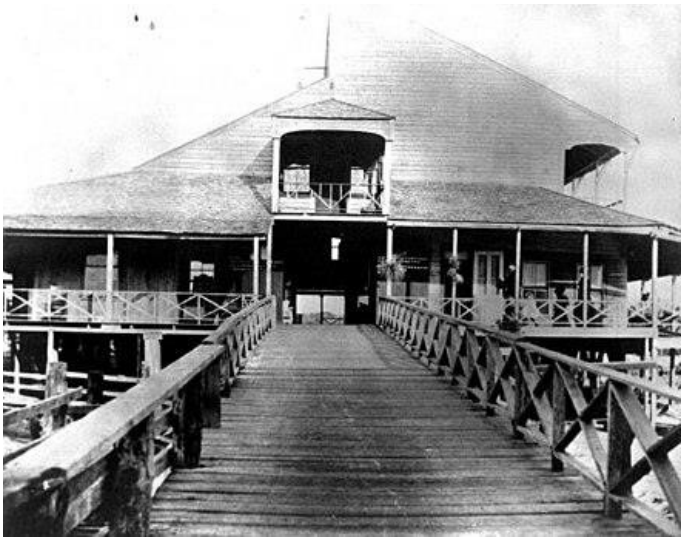
Community and Department Legal Basis

The legal basis for the district was created by a special act of the Florida State Legislature in 1975. House Bill No. 791 established the Iona McGregor Fire Protection and Rescue Service District as an Independent Special Fire District. This bill defined the area covered, funding, and authority of the governing board.

The IMFD is governed by a five-member elected board of commissioners who serve for a term of four years each. These four-year terms are staggered, with either three or two seats up for election every two years. Each year, the board selects a chairperson, vice-chairperson, secretary, and treasurer from among its members.

History of the Community

Fort Myers was built along the Caloosahatchee River during the Seminole Indian Wars to serve as a base of operations. The fort was named in honor of Colonel Abraham C. Myers. After being abandoned in 1858, the fort was re-occupied by federal troops during the Civil War from 1863-1865. Fort Myers has the distinction of being the location of the southernmost battle of the Civil War due to one skirmish that occurred between Northern and Southern troops across the Caloosahatchee River.



"Barracks" - built by the U.S. Government during the Seminole War (1835) under General Winfield Scott Hancock. This building housed the farthest south cable station from 1866 to 1906 when the building burned. (photo courtesy of the Florida State Archives)

As the area grew, cattle, farming, and logging contributed to the economic development in the early years. Herds of cattle were driven past the old fort through what is now the Iona McGregor Fire Protection and Rescue District to Punta Rassa where they were loaded onto steamers and schooners for shipment to Cuba. Pineapple plantations were common inland along the river as early settlers expanded out from the area around the fort.

After a visit in 1885, Thomas Edison became Fort Myers most famous resident and was a large factor in the growth and development of the area. Due to his efforts, Edison is credited with the importation and planting of the many royal palms along what is now McGregor Boulevard. These beautiful palms are the reason for the subsequent nickname “City of Palms.”

McGregor Boulevard circa 1800s

McGregor Boulevard early 1960's

Punta Rassa ferry

The area continued to grow rapidly, and so did the need for fire protection services. On May 30, 1945, House Bill 757 created the Lee County Fire Control District, which covered all unincorporated lands in Lee County with the exception of Boca Grande. The Lee County Commission was the fire control board at that time and levied taxes to support the district, which operated from 1945 until 1962.

In 1962, the Lee County Board of Commissioners and the City of Fort Myers entered into an agreement to pay the City of Fort Myers for fire control service on a percentage basis against the number of calls made outside the city limits. This agreement lasted until October 1, 1971.

A 16-person volunteer fire department and rescue squad was created on April 28, 1965, to meet the growing demand for fire service in what was referred to as the Iona-McGregor area, or Southwest Lee County. In September 1965, this newly formed Iona McGregor Volunteer Fire Department and Rescue Squad was officially chartered as a non-profit Florida corporation.

Iona McGregor's first fire truck-1965

First fire station-Station 71 built in 1970

The area experienced continued growth, and in 1975 the Iona McGregor Fire Protection and Rescue District was created through a referendum vote. This was the beginning of paid fire service in the Iona-McGregor area.

Community Financial Basis

The Iona McGregor Fire Protection and Rescue District is funded through ad-valorem taxes levied against taxable property in the district. The tax rate is fixed by resolution of the Board of Commissioners, not to exceed the millage cap approved by referendum. This process is outlined in section 200.065 of the Florida State Statutes.

The current millage cap approved by voter referendum is 2.5. Each year, the budget for the next fiscal year is prepared for approval by the Board of Commissioners. The Truth in Millage (TRIM) process is a series of steps taken to make sure the public is informed on which taxing authorities are responsible for property taxes levied and have the opportunity to provide input into taxing authorities' budgets and millage rates before they become final.

The property appraiser certifies property values to taxing authorities on July 1 of each year which the taxing authority (fire district) uses to determine the needed millage rate for the upcoming fiscal year.

The district holds a public hearing within 65-80 days of the certification of property values by the property appraiser to adopt a tentative budget and millage rate. Once the tentative budget and millage rate have been adopted, the district advertises notice of the final public hearing within 15 days of adopting the tentative budget and millage. At the final public hearing, the final budget and millage are officially adopted for implementation beginning October 1.

House Bill No. 791 authorizes the Lee County Property Appraiser and the Lee County Tax Collector to take appropriate action to comply with the intent of the legislation in the collection of taxes.

Community Boundaries

The district encompasses 39.48 square miles of land and over 20 miles of shoreline and canals. House Bill No. 791, passed in 1975, details the boundaries of the fire district as depicted in Map 1.

The westernmost district boundary is the Caloosahatchee River, which transitions to the Gulf of Mexico and Estero Bay to the South. The southern district boundary is along Pine Ridge Road and San Carlos Boulevard, transitioning into the Fort Myers Beach Fire District.

The eastern boundary in the south end of the district begins along Heritage Farms Road and generally continues on Summerlin Road. The district is bordered along the east by the South Trail Fire District.

The district's northern border is Davis Drive, which is just south of the Midpoint Bridge. The City of Fort Myers Fire Department covers north of this boundary.

Map 1: IMFD Community Boundaries

Community Planning Areas

The district has approximately 400 road miles. The district is crisscrossed by four major roads serving as hurricane evacuation routes: Summerlin and McGregor Boulevard corridors north to south and Gladiolus and Cypress Lake Boulevard east to west. These evacuation routes are critical and receive a great deal of attention before and after tropical storms and hurricane events.

As a fire district, IMFD does not have a "downtown" necessarily but has two areas that tend to locate more business and commercial traffic. The McGregor corridor runs north and south through the district, following the river. Many small shopping plazas and businesses are located along this strip. The second is similar in development; the College Parkway corridor runs east and west across the district.

One of the district's more unique planning areas lies to the southwest border, the Shell Pointe Retirement Community. One of the largest properties of its type in the United States, Shell Pointe serves an entirely 55 and older population, many of which are considered "assisted living."

Community Transportation Systems

The district is comprised of three major forms of transportation: personal automobiles, county-operated bus system, and boating.

Roadways serving vehicle traffic fall under the jurisdiction of either the State or Lee County DOT divisions. State roads are three lanes or smaller, no highways. The bulk of the remaining roadways are county maintained, smaller local roads and streets. While public transportation bus lines operate throughout the district, most road traffic is private vehicles or local commercial trucking.

Map 2: Main Commercial Corridors

The district is responsible for 20 miles of shoreline along the Caloosahatchee River. This river and its surrounding waterways support a significant fishing, boating, and tourist industry.

Community Critical Infrastructure

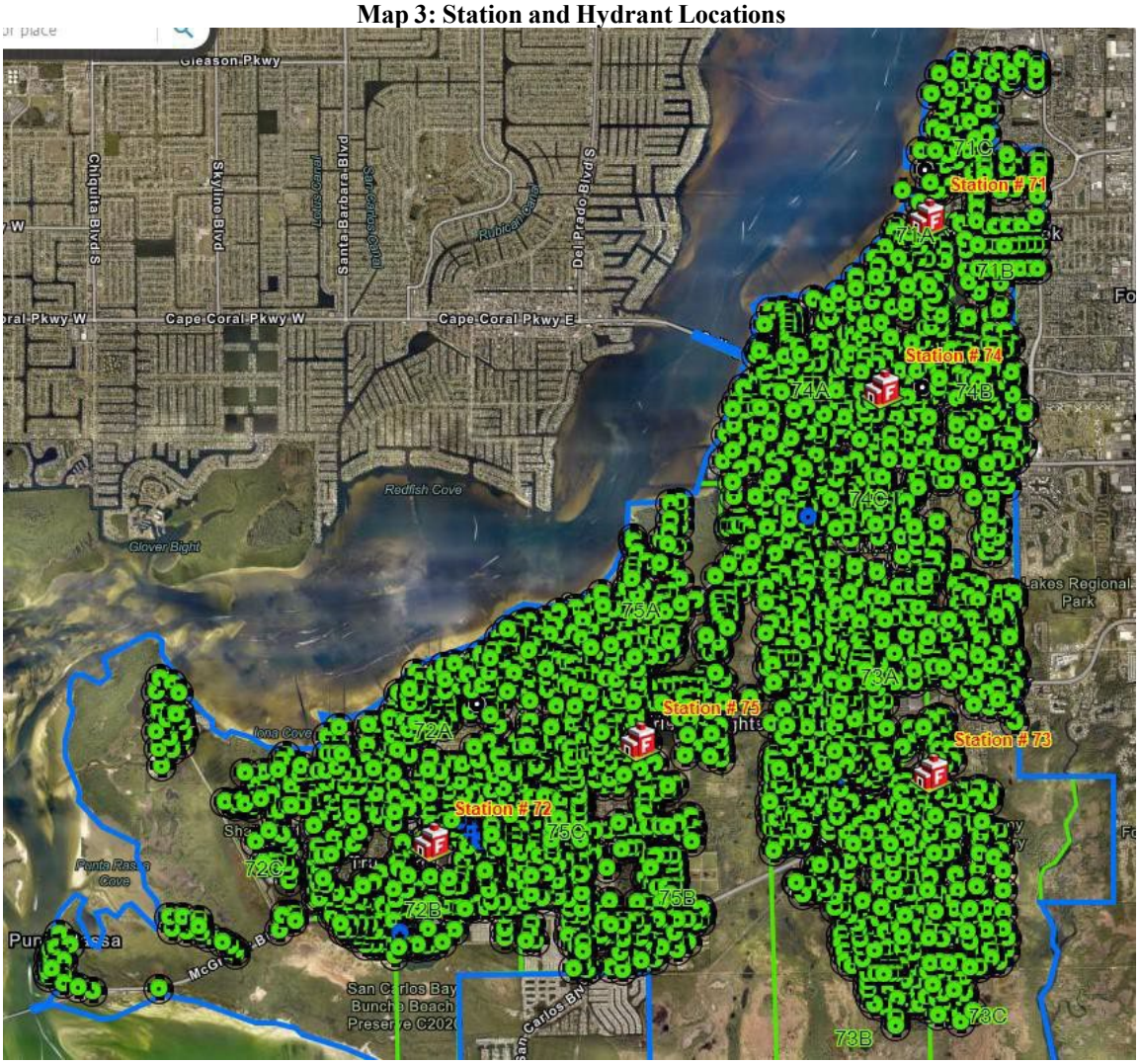
Local infrastructure includes electric, Florida Power and Light (FPL), which serves the entire district with above-ground and buried utility lines. There is an FPL substation located across the road from Station 73. (Southern end of the district off Winkler Road, see Map 1 "Community Boundaries"). This substation provides a staging area for vehicles, machinery, and materials ready for emergencies.

Municipal water is supplied throughout the district by Lee County Utilities Water Department. The district has a robust system of well-maintained hydrants. Municipal sewer systems, also county maintained, serve most businesses and homes. Although it is not uncommon for a private residence to

have septic. Many homes and businesses augment their energy needs with gas; either liquid propane or natural gas is also readily available to the entire district.

The following depicts the location of IMFD's five stations in conjunction with fire hydrants (approximately 2,500) that support fire suppression.

Map 3: Station and Hydrant Locations



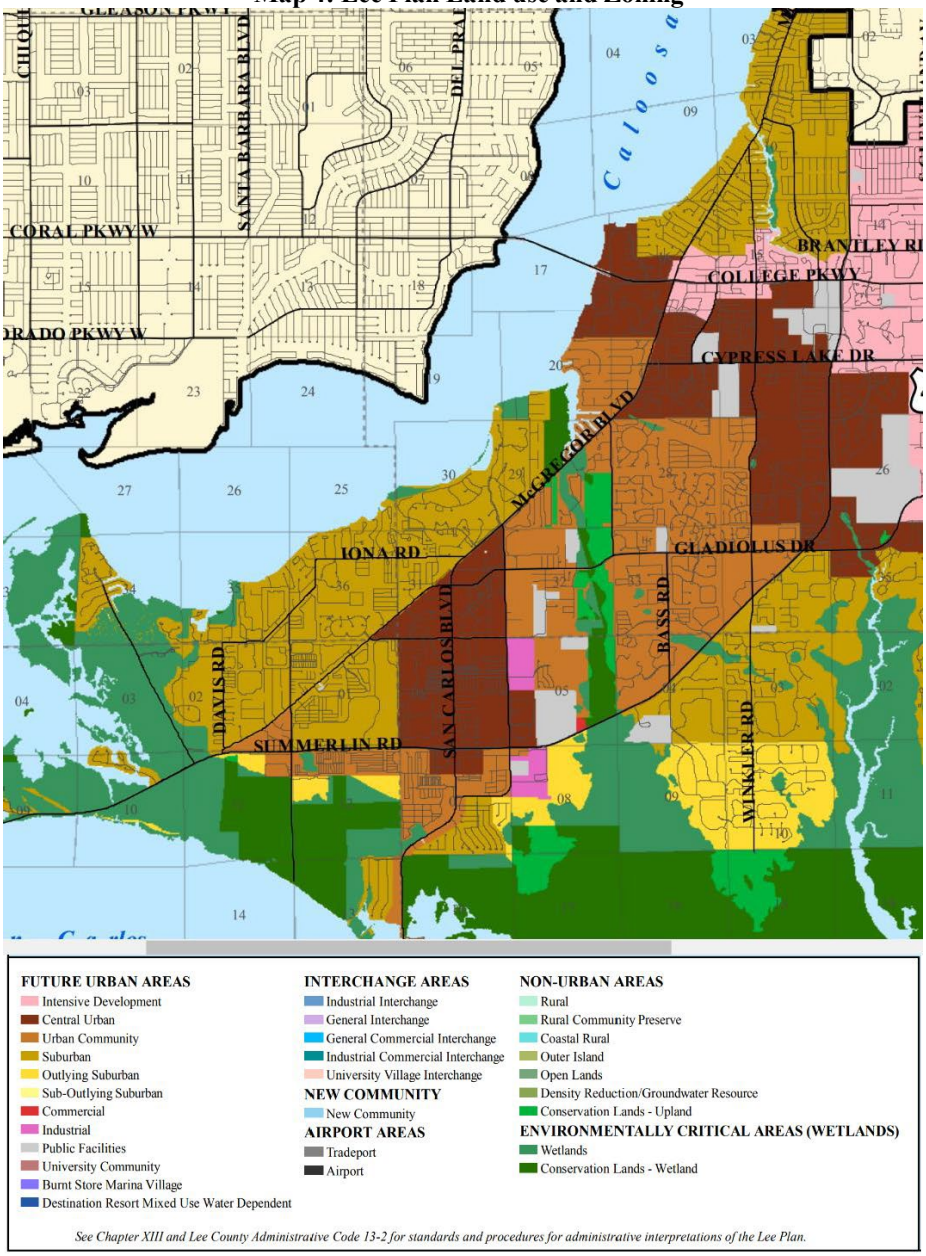
The district has well-developed communications systems; phone lines, cellular towers, and public safety radio systems. In fact, one of Lee County Public Safety Communication's towers is in the southern central part of the district. This not only provides a substantial ability district-wide for normal operational radio communications but the location of this tower, being critical to neighboring communities, warrants the county's focus and commitment to its maintenance and emergency operation.

Community Land Use and Zoning

The district's development and growth are largely controlled by the county seat and what is referred to as "Lee Plan." Lee Plan is a comprehensive, objective coordination of development and growth for the

entire county. The Iona area itself is a very small part of the larger perspective. The community of Iona is an eclectic mix of single-family residential, multifamily residential, and medium to small business commercial properties. Much of the district's growth in recent years has been internal.

Map 4: Lee Plan Land use and Zoning



While the district's geographical service area is fairly static, there continue to be large tracts of land released for new development. Zoning changes from agricultural exempt to commercial or residential development are common.

The district maintains zoning and use authority for all new development through a strong prevention division. Fire and life safety review is mandatory on all construction and trade permits.

Community Topography

San Carlos Bay is also home to Bunche Beach preserve, a 719-acre natural tidal wetland facility. It is a natural area that is indicative of the entire area before the introduction of exotic plant species; it is considered "Old Florida." This is a living ecosystem that ranges from a sandy beach to mangrove forests to salt flats and contains a wide variety of wildlife for viewing and offers great photographic opportunities from flora and fauna to fantastic sunsets.

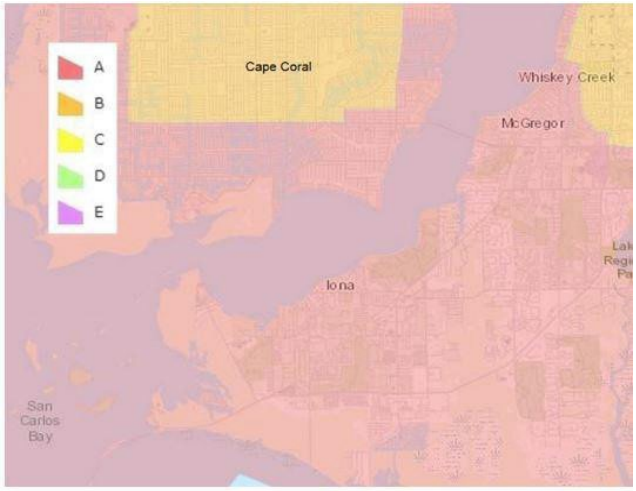
The Caloosahatchee River runs from Lake Okeechobee to San Carlos Bay on the southwest coast of Florida. San Carlos Bay borders the Gulf of Mexico as well as Sanibel Island. The lower 25-miles of the river's 67-mile course is a tidal estuary, making it a valuable environmental asset. It is essential for many marine organisms to spend part of their lives in an estuary.

On a stretch of land less than 15-acres along the Caloosahatchee River stands a peninsula lined in palm trees called Punta Rassa. A rich history of colorful characters marks Punta Rassa, one with Calusa Indians, Spanish explorers, cowboys, soldiers, telegraph operators, and commercial fishers. The location was originally named *Punta Rasca*, meaning "smooth or flat point," but later renamed *Punta Rassa* by the Spanish Conquistadors in the mid-16th century, who unloaded cattle in the area.

Henry Ford (left) and Thomas Edison (right) sitting on a pier at Punta Rassa, 1925

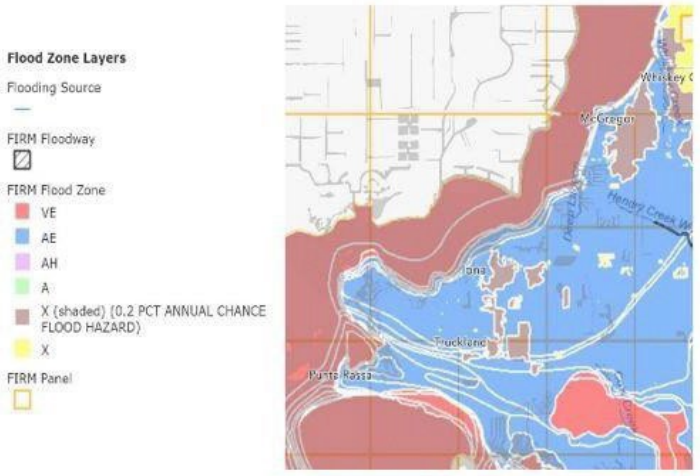
The growing coastal population leads to increased coastal development, which places greater numbers of structures at risk for damage from coastal hazards. Coastal hazards like storm surge, hurricane-force winds, and flooding place this population at risk. When storms impact the coast, communities can face serious threats to human safety, extensive damage to infrastructure and the built environment, and economic disaster.

Map 5: Hurricane Surge Evacuation Zones



Current Hurricane Surge Evacuation Zones, Lee County

Map 6: Flood Zones

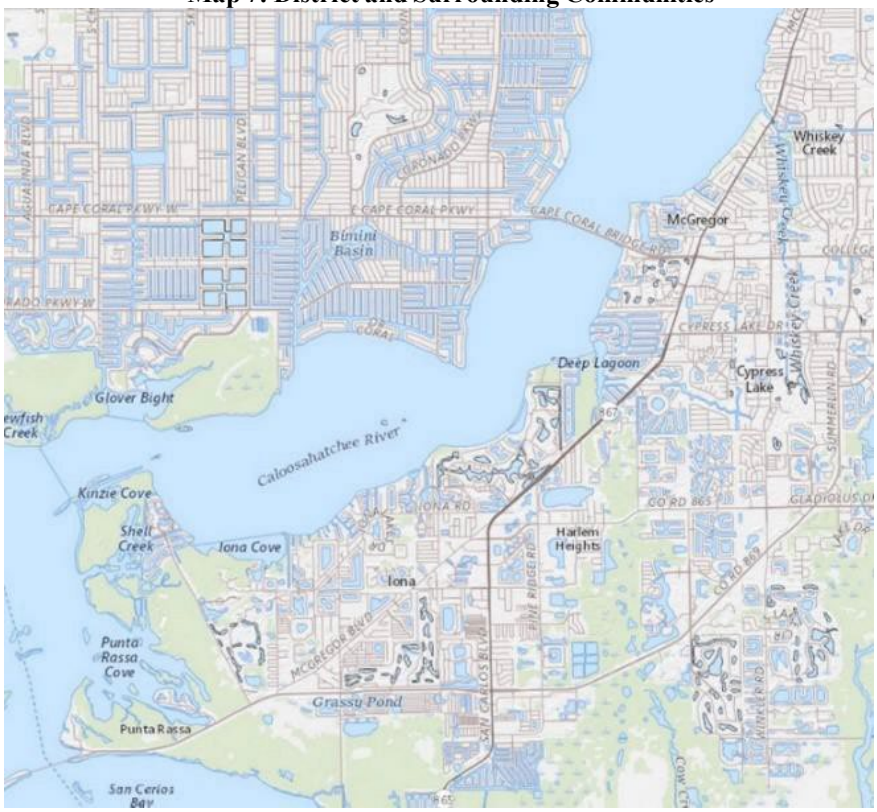


Current Flood Zones, leegis.maps

Community Geography

Iona is in southwestern Lee County at 26°31′N 81°58′W (26.510, -81.959), and the topography is generally flat and low. Land elevation ranges from sea level in the west to about 30 to 35 feet above mean sea level in the east. Elevations in the district average three feet, except within the area of Whiskey Creek, where elevation is at 10-feet above mean sea level.

Map 7: District and Surrounding Communities



Community Geology


Quartz and carbonite sand.

Throughout much of Lee County and Iona, the Caloosahatchee formation consists of undifferentiated Tertiary-Quaternary sediments. The Tertiary-Quaternary unit consists of a quartz sand blanket covering limestone and clay. Fossils, including mollusks and corals, are very common and usually in excellent condition. Coastal areas are located on the Holocene sediments. These were formed in the last 10,000 years with the warming of the earth and the beginning of man. These sediments occur near the coastlines with elevations generally less than five feet. Sediments here include quartz, sands, carbonate sands and muds, and organics.

Community Physiography

The Iona area was once known as the "gladiolus capital of the world." Gladiolus farms produced thousands of acres of gladioli. Cradled in the warm arms of the Caloosahatchee and the Gulf of Mexico, Iona, named by an early Scottish settler for the Ionian Islands of Scotland, was considered the most consistently frost-free area in the United States. Gladiolus bulbs were first planted in Iona in 1935 as two successive winter freezes in Central Florida had driven gladiolus growers south into the Fort Myers area.


Fort Myers was once the gladiolus capital of the world with 30 local growers cultivating over 2,500 acres, employing more than 1,000 workers, and shipping almost 45 million dozen gladioli annually. *SWFL Historical Society, Photo By Ernie Hall Ca. 1970,*

Community Climate

IMFD is in Southwest Florida and rests along the coastal areas between the cities of Fort Myers and Fort Myers Beach. The district does not sit within the geographical confines of the tropic zone; however, the area does have a tropical climate with several months of high heat and humidity with a more comfortable climate found in the winter months. As seen on the following map, South Florida and the IMFD fall within the "tropic" classification.

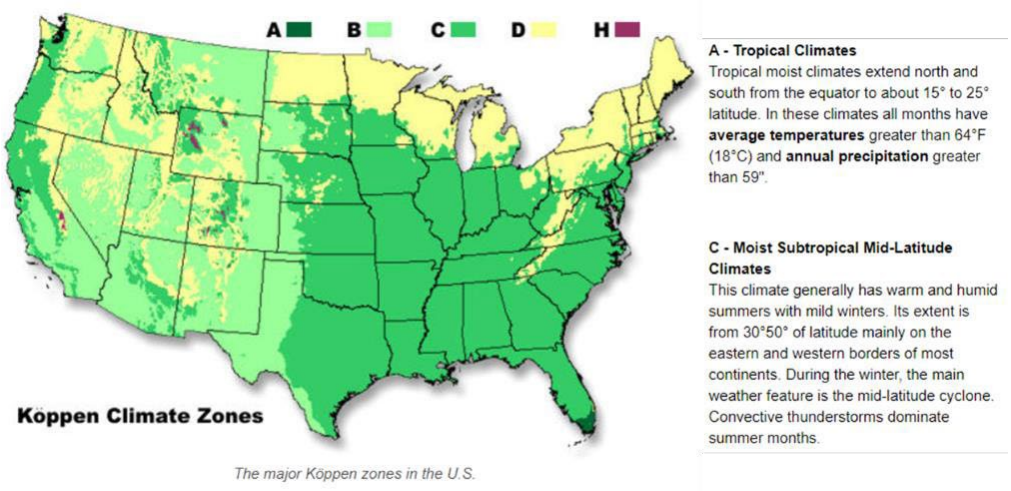
The summer months have an average high temperature of 91 degrees and a subsequent low in the winter months, around 58 degrees. Humidity averages 72 percent year-round. July is the hottest month of the year, with temperatures on average being 91.7 degrees, making it one of the hotter areas of the state. January has the coolest temperatures, with the nighttime temperature falling on average to 53.3 degrees, which is still considered warmer than most of the state. In the IMFD, on average, there are 104 days annually when the high temperature is over 90 degrees.

During the rainy season, July is typically the wettest month, recording 9.2 inches of rain. The wet season produces 51 percent of the yearly precipitation for the area. There are 112.8 rainy days recorded annually, which is average when compared to other areas in Florida. Following the trends of the wet season, three areas have been identified: the highest and lowest percent chance of rain on any given day, the highest and lowest number of rainy days in any given month, and the highest and lowest amount of rain fall for any month.

The driest season is typically the Spring, with a recorded average of 10 percent of the total rainfall. In the Spring, there is only a 15 percent chance of rain on any given day. The month of April sees the lowest number of rainy days annually, with only 4.7 days with rainfall on average. The month with the lowest recorded average rainfall has been December, with only 1.6 inches of rain recorded. This makes April one of the driest months in terms of rainy days and December the driest month in terms of rainfall.

The wettest season for the Iona area is late summer and early fall. During this time, the average chance of rain increases to roughly 44 percent each day. Annually, August maintains the highest number of recorded rainy days, with 17.3 days on record. The month with the largest amount of rain is July, with 9.2 inches of rain recorded. The annual rainfall of 53.6 inches means that Iona is about average compared to other places in Florida.

Map 8: Koppen Climate Zones



The major Köppen zones in the U.S.

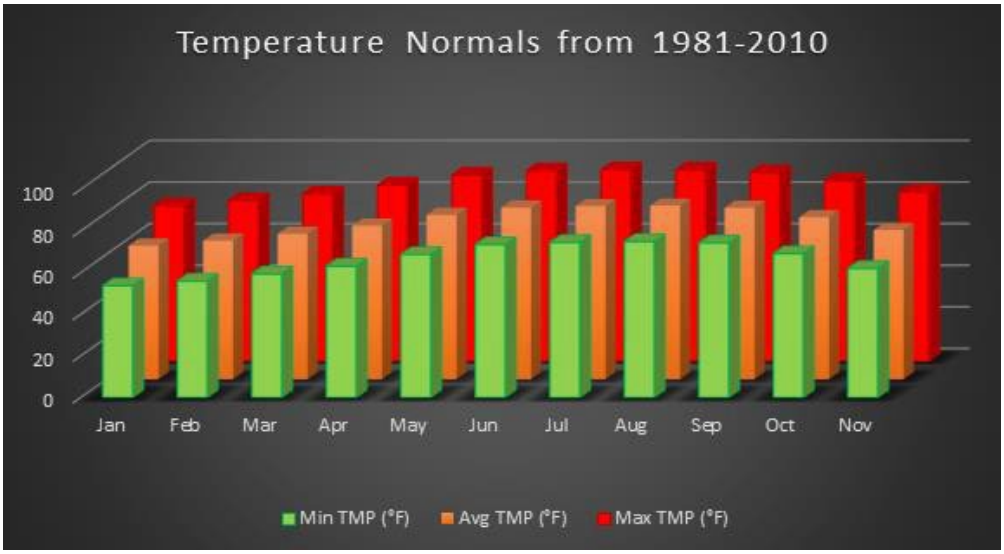


Figure 1: Temperature Norms (1981-2010)
(NOAA and National Centers for Environmental Information Data Tools)

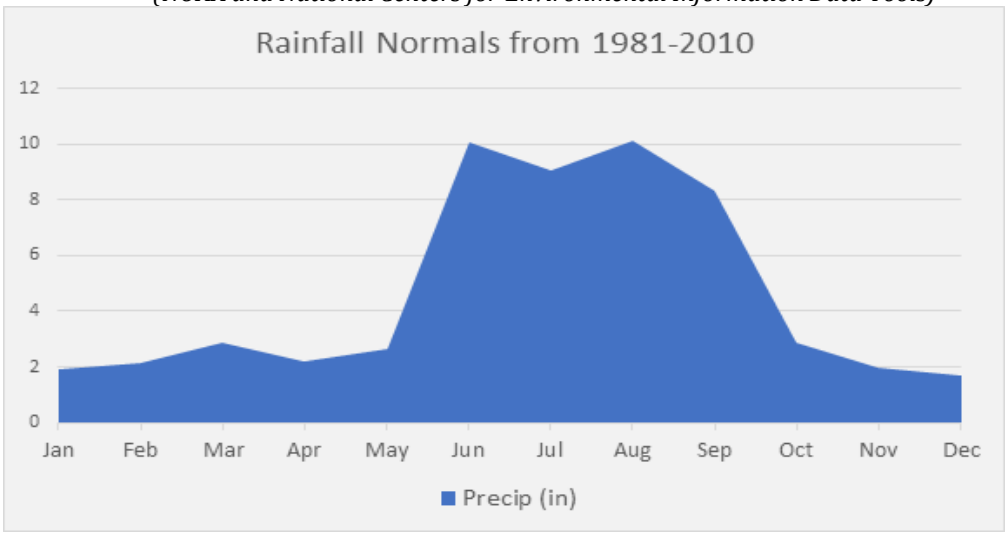


Figure 2: Rainfall Norms (1981-2010)
(NOAA and National Centers for Environmental Information Data Tools)

Community Population/Population Densities

The Iona McGregor Fire District encompasses 39.48 square miles of land and more than 20 miles of shoreline and canals. Since its establishment in 1965, when the population was approximately 5,000, the District has experienced steady and sustained growth, attracting both residents and businesses.

According to the most recent U.S. Census estimates (2025), the population of the District is 62,423, compared to 63,267 in 2024. Population distribution across station response and planning zones is as follows:

Zone 71 = 7,179
Zone 72 = 11,500
Zone 73 = 17,048
Zone 74 = 13,448
Zone 75 = 13,248

Looking ahead, the population is projected to reach 64,347 by 2030. Based on the current annual growth rate of 0.62%, the District can expect continued, gradual population increases.

Based on 2025 Lee County traffic count data, more than 140,000 vehicles travel daily along the District's primary gateway corridors, representing an annual average rather than peak seasonal volumes. (TrafficCountReports)

Community Demographic Features

2025 market data reflects continued housing demand within the Iona McGregor Fire District. Across ZIP codes 33908 and 33919, blended median sale prices averaged approximately $484,000 for single-family homes and $238,000 for condominiums (FloridaRealtors.org), while average monthly rent prices were approximately $2,100 (Zillow.com). Household income levels remain strong, with 37.6% of households earning $100,000 or more annually, including 13.9% earning above $200,000. Population data reflects a stable residential community with diverse representation, including 10.3% of residents identifying as Hispanic origin. These figures reflect the District's continued desirability, market stability, and diverse housing opportunities.

Figure 4: Household Income (US Census Data)

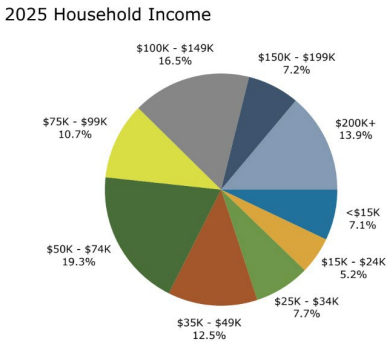
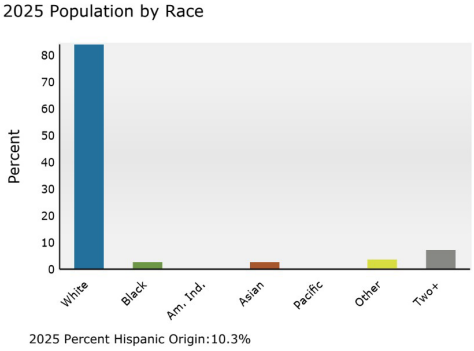
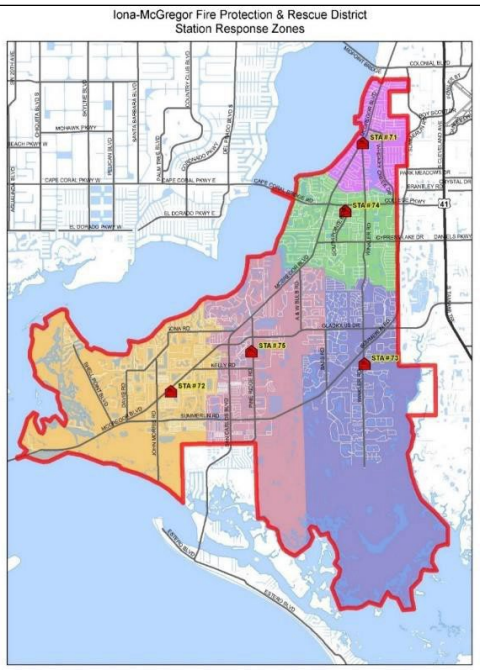


Figure 5: 2022 Population by Race (US Census Data)



Map 10: Station Response Zones



Map 9: Census Tracts

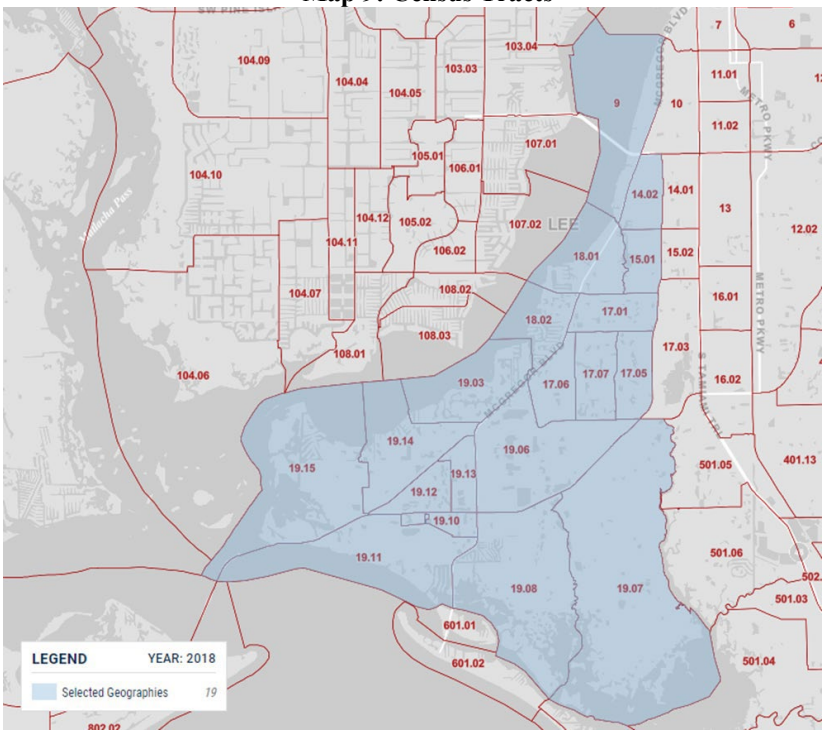
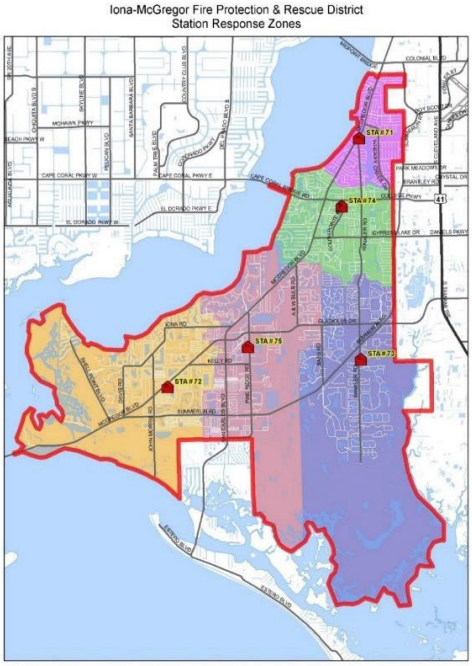
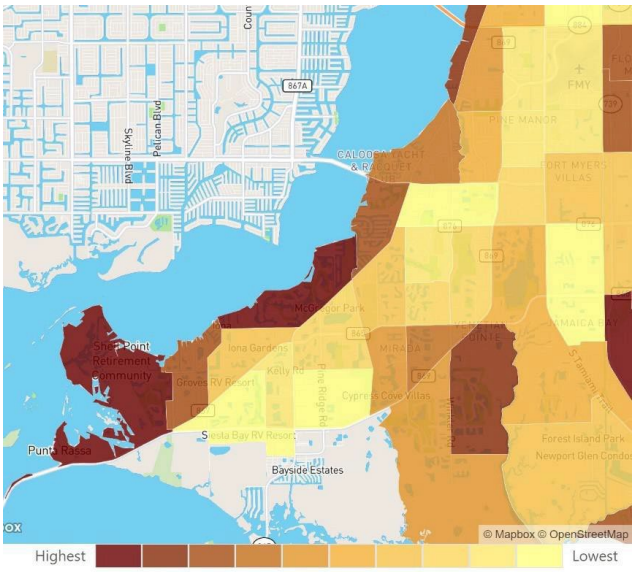


Figure 3: Station Response / Planning Zone Population



Map 11: Property Home Values by Geographic Area

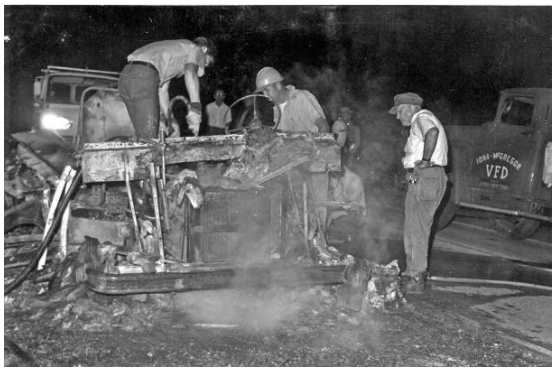


B. History of the Agency

Major Historical Milestones of the Department

On November 4, 1975, the community residents approved the creation of the Iona McGregor Fire Protection and Rescue District (IMFD) by a 90 percent affirmative vote. The first Board of Fire Commissioners was elected to office on December 16, 1975, which consisted of members Cornelius Adema, William Hansen, Howard Wilson Jr., Douglas J. McGoon, and William Mellor. At that time, the State of Florida began requiring all paid firefighters to meet minimum standards and to be certified.

Volunteer Fire Department's first Fire Truck (1965)



Iona McGregor Volunteer Fire Department fighting a Vehicle fire in 1969

Firefighters connect radio antenna to Station 71. (unknown date)

By the end of 1976, the district employed six full-time certified firefighters but continued to be supplemented by the volunteer organization's members. All services were provided from Station 71.

Service to the Iona area improved dramatically with the opening of Fire Station 72 in 1977. In that same year, the district began providing its first regular rescue service.

In 1978, Iona McGregor was the first fire district to create a fire prevention bureau. As the community grew through the early 1980s, the district found it difficult to keep pace. Unlike all other government agencies that tax on a millage system, the district had a flat rate system that did not change with property values. After failed referendums to increase the flat rate in 1981 and 1982, the voters finally approved the switch to a millage system in 1983.

With increased funding, the district hired more firefighters and thus relied less and less on help from the volunteer organization. In 1986, the Iona McGregor Volunteer Fire Department and Rescue Squad Inc. was officially disbanded, and the department became fully paid. That same year, the district purchased its first aerial apparatus and increased the number of full-time employees to 85.

Fire Station 73 opened in 1990, complete with administrative offices, a maintenance facility, and a fitness training center. A new facility replacing Station 72 opened in October of 1994 and was designed to meet the protection needs of the Iona area well into the 21st century.

Another major milestone was when the district began providing advanced life support (ALS) services to the community in April 2001.

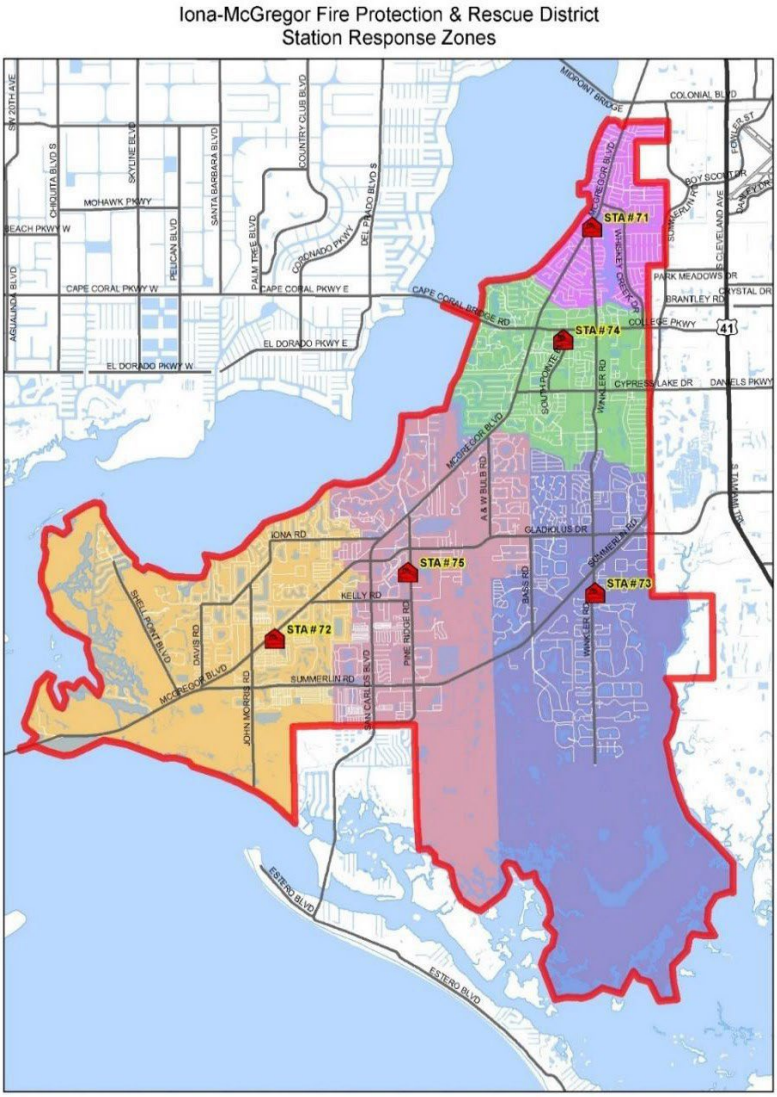
Station 74 opened in September of 2003. The new facility was built to house district personnel and equipment during hurricanes and included the first training tower.

In 2010, Station 75 was built on Pine Ridge Road in a cooperative effort with the county.

Current Legal Boundary of Service Area

House Bill No. 791, created by a special act through the Florida State Legislature in 1975, established the Iona McGregor Fire Protection and Rescue Service District as an independent special fire district. This Bill defined the legal boundary of the service area as shown in the following map.

Map 12: Station Response Zones



Current Organization, Divisions, Programs, and Services

The district is an independent fire district operating five local fire stations and is governed by a five-member elected Board of Commissioners.

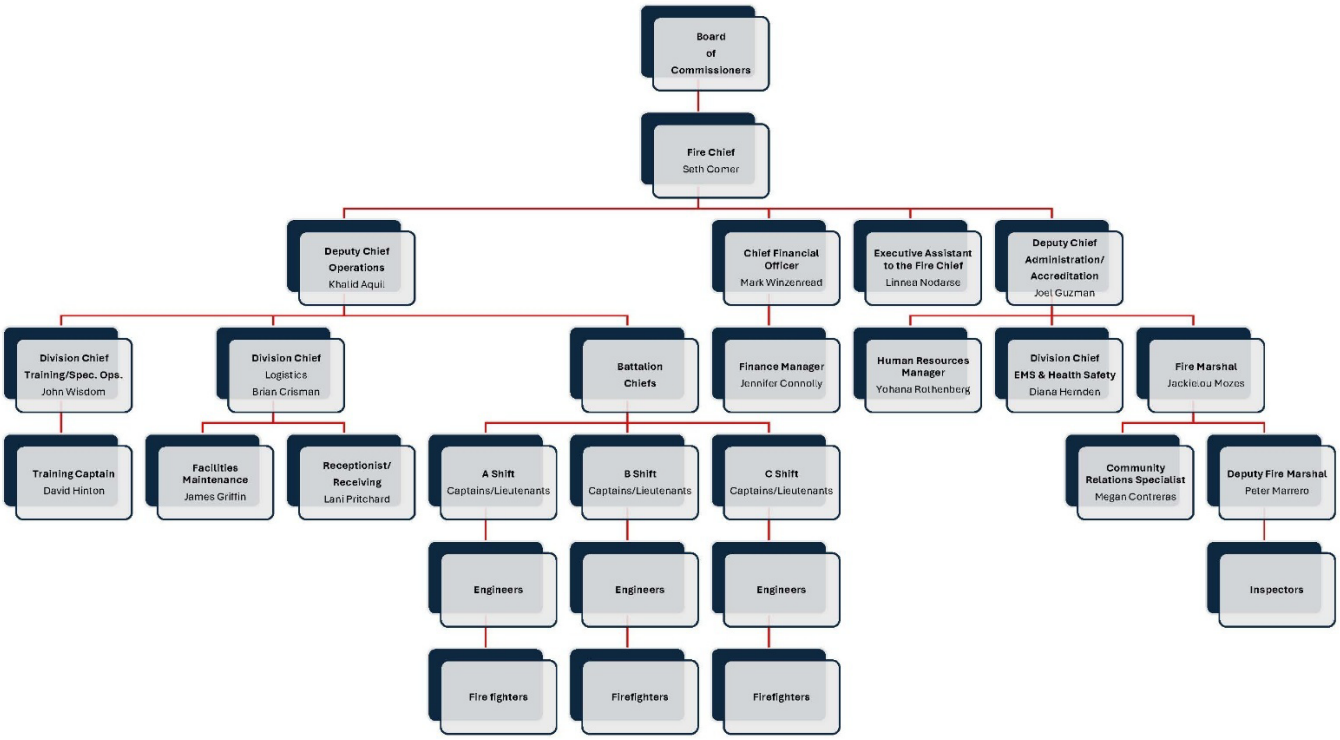


Figure 6: Organizational Chart

The district protects the lives and property of its citizens through programs such as fire education, fire prevention, fire suppression, and emergency rescue services. These programs and services are administered through two branches, administration and operations. Four divisions and three operational battalion chiefs report to either the deputy chief of administration or the deputy chief of operations as indicated in figure 8.

Deputy Chief of Operations- oversees the emergency needs of the district's residents and businesses. This division includes the equipment and apparatus/trucks necessary for the personnel to carry out their mission, be it a fire, rescue, or medical emergency. In addition, they respond to a variety of non-emergency calls for assistance.

Battalion chiefs oversee one of three shifts and report directly to the Deputy Chief of Operations. Operational personnel on shift are currently number 81: three battalion chiefs, 15 lieutenants, 15 engineers, and 48 firefighters. These personnel operate from the five fire stations strategically located throughout

the district on a 24-hour on-shift and 48-hour off-shift rotation. There are three shifts (A, B, and C). Each shift consists of personnel who work together as a team and live together as a family.

Vehicle extrication

Training and Special Operations Division- manages and oversees fire and special operations training. The training division is staffed with one division chief, and reports to the deputy chief of operations.

Survival training

Orientation with new firefighters

Logistics Division- oversees the fleet of apparatus and all staff vehicles, as well as the maintenance and repair of district facilities. This division ensures that firefighters have the appropriate personal protective equipment (PPE) and tools to mitigate incidents within the district's mission.

Additional duties handled by the division are building and ground maintenance of the five stations and the training tower at Station 74.

The logistics division is composed of one division chief, one building maintenance technician, and one receptionist. The division chief of logistics reports to the deputy chief of

Operations.

Deputy Chief of Administration and Accreditation- oversees the accreditation process and the administrative and human resource functions of the District.

Fire Prevention and Public Education Division- serves as the inspection, education, and enforcement branch of the District. This division is dedicated to protecting life and property through a range of proactive services, including code enforcement, routine fire safety inspections, permitting for operational and special uses, and investigations of fire-related complaints.

This division is also responsible for overseeing and coordinating community risk reduction and public education programs. It is staffed with one fire marshal, who supervises four fire inspectors, and a community relations specialist. The fire marshal reports directly to the deputy chief of administration and accreditation.

Back to school safety

Fire investigation

CPR training

EMS, Health and Safety Division- serves as the District's chief officer in charge of emergency medical services and the health and safety programs for the organization. The EMS, health and safety division is staffed with one division chief and reports to the deputy chief of administration and accreditation.

Logistics is responsible for apparatus, stations, and personal protective equipment.

Both Deputy Chiefs report to the Fire Chief to manage and lead the district. The district utilizes a chief financial officer assisted by a finance manager and the fire chief and deputy chiefs are supported by an executive assistant.

Fire Stations, Training Facilities, Apparatus, Equipment, and Staffing

The district responds from five fire stations with five frontline apparatus (three engines, one squad, and one aerial) and staffing further supported by three non-transport medical units. The district also maintains adequate reserve units to maintain response capabilities when maintenance issues arise with frontline units. In reserves, there are currently two engines, one ladder, one rescue, and one command vehicle.

Station 71: 5401 Winkler Road at the intersection of McGregor Boulevard

- **Engine 71**-Sutphen S1 (2021); 750-gallon water tank; 1,500 gallons per minute (gpm) pump capacity
- **Four personnel assigned (three minimum)**
  - One company officer
  - One engineer
  - One/two firefighters

Station 71 is the oldest in the district, built in 1970. This facility underwent a major renovation in January 2006 and re-opened as a single-bay station in January 2007. The station houses an advanced life support (paramedic) fire engine with a crew of four persons. The facility is equipped with an emergency generator for 24/7 operations.

The station was flooded during Hurricane Ian in 2022. Following that, the station was remodeled to make better use of space and include modern features including station mitigation to protect from future flooding.

Station 72: 16551 McGregor Boulevard

- **Engine 72**- Sutphen S1 (2019); 750-gallon water tank; 1,500 gpm pump capacity
- **Rescue 72-**Ford 350 (2022)
- **Six personnel assigned (five minimum)**
  - One company officer
  - One engineer
  - Four firefighters (one/two on engine; two on rescue)
- One Lee County EMS (LCEMS) ALS ambulance
  - Two EMS personnel

This facility was opened in October of 1994 to replace a smaller metal building that occupied the same site. The station houses one engine and a paramedic rescue squad. The current crew assignment is 18 personnel (six per shift). In addition to the district equipment and personnel, the facility houses an LCEMS ambulance and a two-person crew. The facility is equipped with an emergency generator for 24/7 operations.

The station was flooded during Hurricane Ian in 2022. Following that, the station was remodeled to make better use of space and include modern features including station mitigation to protect from future flooding.

Station-73: 15961 Winkler Road south of Summerlin Road

- **Squad 73-** Sutphen Custom (Squad) Pumper (2021); 700-gallon water tank; 1,500 gpm pump capacity
- **Rescue 73**-Ford 350 (2022)
- **Six personnel assigned (five minimum)**
  - One company officer
  - One engineer
  - Four firefighters (one/two on engine; two on rescue)
- One Lee County EMS ALS ambulance
  - Two EMS personnel
- **Five prevention/public education personnel**
  - One fire marshal
  - One deputy fire marshal
  - Four fire inspectors
  - One community relations specialist

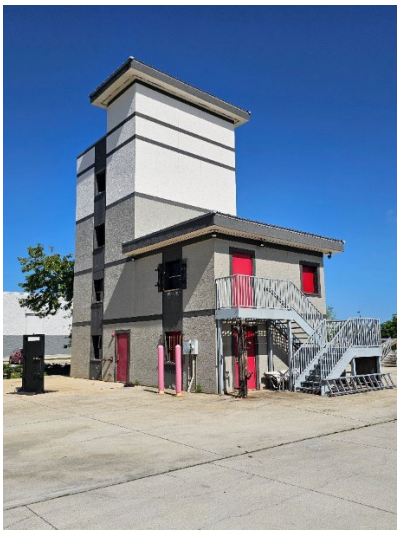
This station opened in 1991 and currently houses the district's fire prevention bureau. The station houses an engine, reserve engine, and paramedic rescue squad. The current crew assignment is six personnel per shift and five fire prevention and public education personnel. Other vehicles assigned to the station include two maintenance trucks and four staff vehicles. In addition to the district equipment and personnel, the facility also houses an LCEMS ambulance with a two-person crew. The facility is equipped with an emergency generator for 24/7 operations.

Station 73 houses the majority of the technical rescue equipment and personnel, along with an assortment of concrete slabs and culverts to allow the simulation of confined space rescues.

Station-74: 6061 South Pointe Boulevard

- **Truck 74**- Sutphen SPH 100 (2019); 300-gallon water tank; 1,500 gpm pump capacity; 100-foot aerial
- **Rescue 74-**Ford F-350 (2022)
- **Six personnel assigned (5 minimum)**
  - One company officer
  - One engineer
  - Four firefighters (one/two on truck; two on rescue)
- One Lee County EMS ALS ambulance
  - Two EMS personnel
- **Nine administrative personnel assigned**
  - Four chief officers
  - One chief financial officer
  - One finance manager
  - One human resources manager
  - One executive assistant
  - One receptionist
  - One facilities coordinator

This facility opened in August of 2003 and includes the business offices for the district's logistics, operations, and administrative functions. The station houses one engine and a paramedic rescue squad. The current crew assignment is six per shift. In addition to the firefighting personnel, eight administrative personnel also work out of the business offices. In addition to the district equipment and personnel, LCEMS has assigned one ALS ambulance and one basic life support (BLS) ambulance, each with a two-person crew to the facility. The facility is built to withstand the forces of a major hurricane and serves as the "Beaches Division" command center as part of the Lee County Disaster Plan. The facility is equipped with an emergency generator for 24/7 operations. Adjacent to the station building on the same site is a four-story fire training building for use by district personnel.



Training tower located adjacent to Station 74

Station-75: Pine Ridge Road between Gladiolus Drive and Kelly Road.

- **Engine 75**-Sutphen Custom Pumper (2025); 750-gallon water tank; 1,500 gpm pump capacity
- **Battalion 70**-Chevy Tahoe (2024); shift command vehicle
- **Five operations personnel assigned (four minimum)**
    - Two division chief (administrative)
    - One battalion chief
    - One company officer
    - One engineer
    - Two firefighters
- One Lee County EMS ALS ambulance
    - Two EMS personnel
- One Lee County EMS supervisor vehicle
    - One EMS supervisor

This facility was built as a cooperative effort between the fire district, Lee County EMS, and the Lee County Sheriff's Department. Station 75 has two training rooms, one large and one smaller, with modern audio/video capabilities. This station also has a variety of other simulation props to facilitate smaller company training skills and evolutions. The facility is equipped with an emergency generator for 24/7 operations.

The district also maintains a 32-foot marine response firefighting boat with fire pump capabilities of 500 gpm. This boat remains on the water located at Marine Max on McGregor Boulevard and supports water operations response capabilities. This unit is staffed by on-duty personnel who deploy from their assigned stations upon receipt of calls for service.

The current staffing levels and certification levels of personnel are indicated below.

STAFFING / TEAM AFFILIATION CHART (December 2025)

(A-Shift) BC Martin							(B-Shift) BC Palijan							(C-Shift) BC Fischer						
Total 26	17	4	9	3	8		Total 26	16	5	10	11	6		Total 26	18	6	10	7	3	
Acting LT=5	9	FM	Acting BC=2				Acting LT=6	9	FM	Acting BC=2				Acting LT=5	11	FM	Acting BC=2			
Required	8	2	6	5	6		Required	8	2	6	5	6		Required	9	2	6	5	6	
Have	17	4	9	3	8		Have	19	5	10	11	6		Have	15	6	5	7	3	
	Paramedics	Boat Pilots	Divers	TRT/USAR	HazMat Techs			Paramedics	Boat Pilots	Divers	TRT/USAR	HazMat Techs			Paramedics	Boat Pilots	Divers	TRT/USAR	HazMat Techs	

Paramedic	PS=Paramedic Student	Water Operations	DT=Diver Trainee; D1=Tethered diving/shore based;
	PC=Credentialing Paramedic		D2=All IMFD dive operations
	P=Credentialed Paramedic		P=Boat Pilot
	PE=Paramedic/EMS Coordinator		NA=Out on STD/WC
Technical Rescue Team	TT=TRT Trainee UT=USAR Trainee		ST=Strike Team/Task Force Leader
	T=Technician Level (3 disciplines)		(aa) = Acting O/C 2 positions
	U=Urban Search and Rescue		(a) = Acting O/C 1 position
Haz Mat	160=State Haz Mat Tech		HG=Honor guard
Flagged	Probation (any rank)		(t)=Acting officer training (LT or BC)

C. Current Descriptions of Levels of Service with Delivery Programs

Fire Suppression

Fire suppression is the general concept of active efforts that lead to the extinguishment of fire. This often includes mitigating vehicle fires, building fires (residential or commercial), and brush (vegetation) fires. All district fire stations are equipped with apparatus and personnel in support of fire suppression ability and readiness. In conjunction with professional standards set by the National Fire Protection Association (NFPA), the Insurance Standards Office (ISO) uses a Fire Suppression Rating Scale (FSRS) ranging from 1-10 to assess a community's ability to fight fires effectively. The main areas of considerations for this rating are emergency communications, water supply (e.g., fire hydrants), and the community's fire department(s). The extent of fire suppression capabilities of the district is reflected by an ISO rating of 2. Moreover, citizens of the district benefit from mutual/automatic aid agreements that ensure the closest available fire suppression units respond across district boundaries to meet NFPA emergency response standards. The district's bordering fire agencies who frequently contribute to prompt fire incident response are the City of Fort Myers Fire Department, South Trail Fire Department, and Fort Myers Beach Fire Department.

Station 71:

- **Engine 71**-Sutphen S1 (2021); 750-gallon water tank; 1,500 gpm pump capacity

Station 72:

- **Engine 72**- Sutphen S1 (2019); 750-gallon water tank; 1,500 gpm pump capacity
- **Rescue 72-**Ford-350 (2022)

Station 73:

- **Squad 73-** Sutphen Custom Pumper (2021); 700-gallon water tank; 1,500 gpm pump capacity
- **Rescue 73**-Ford F-350 (2022)

Station 74:

- **Truck 74**- Sutphen SPH 100 (2019); 300-gallon water tank; 1,500 gpm pump capacity; 100-foot aerial
- **Rescue 74-**Ford F-350 (2022)

Station 75:

- **Engine 75**-Sutphen Customer Pumper (2025); 750-gallon water tank; 1,500 gpm pump capacity
- **Battalion 70**-Chevy Tahoe (2024); shift command vehicle

Emergency Medical Services

Emergency medical services is the component of care provision that exists outside of hospitals or other facilities but is equally a part of the care continuum. The three levels of emergency medical services in Florida are first responder, emergency medical technician basic (basic life support functional capacity; some treatment, but no treatment drug capacity), and emergency medical technician-paramedic (advanced life support functional capacity; procedure and treatment drug administration ability). The district staffs eight total units, all of which maintain ALS service level with a minimum of one paramedic consistently assigned to each unit. The district's primary medical units are three non-transport emergency vehicles in zones 72, 73, and 74, and the primary medical units in zones 71 and 75 are the sole fire engines residing there. All district operational personnel are required to possess a minimum of emergency medical technician-basic certification (EMT-B), and the majority possess an emergency medical technician-paramedic certification (EMT-P). Lee County Emergency Medical Services is the transport agency within the district and houses five ambulances within four of the district's stations.

Station 71: ALS engine; no LCEMS unit

Station 72: ALS engine; ALS non-transport medical unit; Medic 15 (LCEMS ALS ambulance)

Station 73: ALS engine; ALS non-transport medical unit; Medic 8 (LCEMS ALS ambulance)

Station 74: ALS aerial; ALS non-transport medical unit; Medic 20 (LCEMS ALS ambulance)

Station 75: ALS engine; Medic 27 (LCEMS ALS ambulance); LCEMS Lieutenant with staff vehicle

Technical Rescue

Technical rescue is a general term referring to subcategories of specialized emergency training to address situations such as the collapse of buildings, flash flooding, machinery/industrial accidents, and elevated rescues. Some elements of technical rescue are present within the general capabilities of fire department operations; however, the district also maintains a technical rescue team (TRT) with primary personnel assigned to Station 73 and staffing Squad 73 (special operations fire engine). TRT membership requires technical level training in rope rescue, vehicle machinery rescue, and confined space, and 25 personnel are active with TRT. On a larger scale, the district has a membership (12 of the 25 TRT personnel) with the multi-jurisdictional Region 6 Urban Search and Rescue Team (Florida USAR Task Force 6). Urban search and rescue teams exist in support of the Federal Emergency Management Agency's (FEMA) national disaster response framework. Florida's USAR Task Force 6 is a state-funded, collaborative team that is always on-call for local incidents or deployment to other regions of the state (e.g., hurricanes).

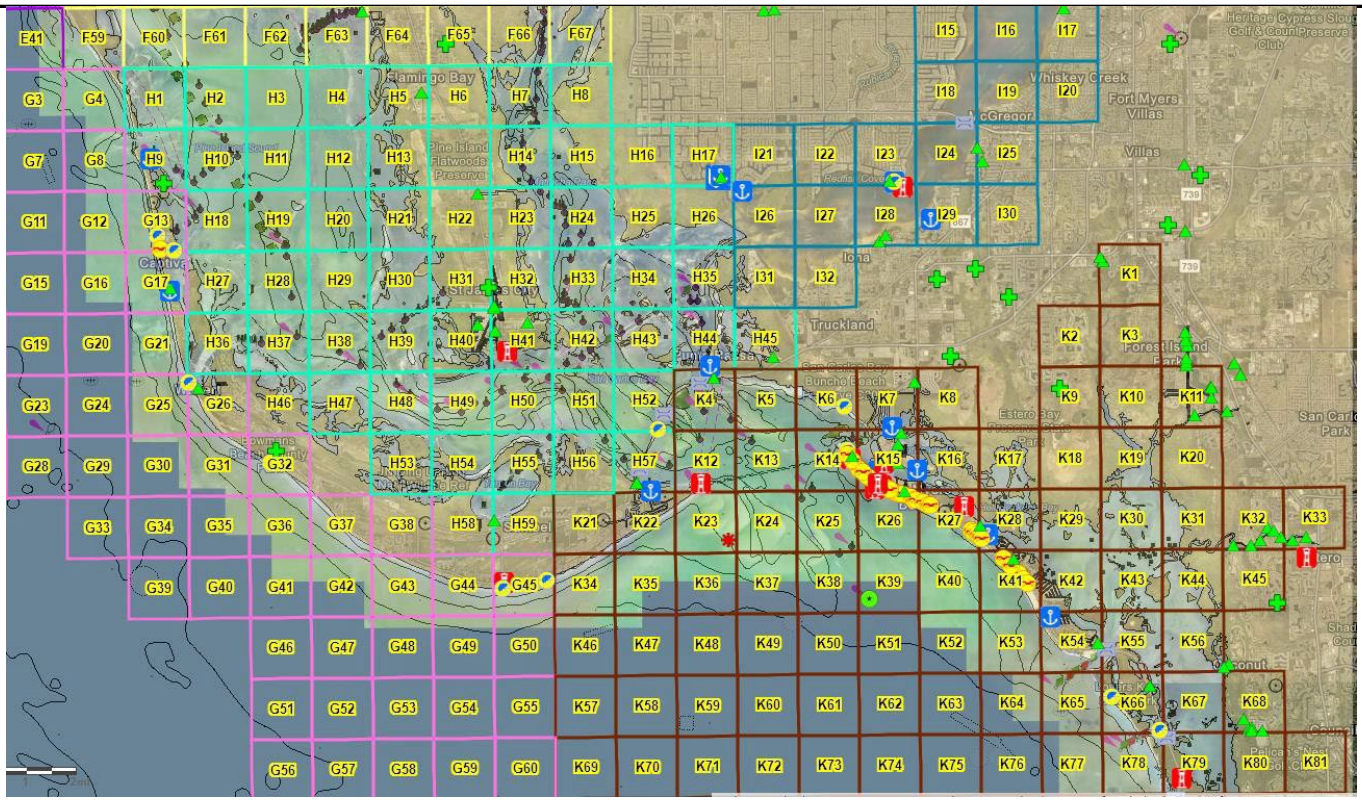
Hazardous Materials

Hazardous materials are substances (e.g., liquid, solid, gas, etc.) that present some degree of health or environmental risk. Hazardous materials include radiological, biological, chemical, nuclear, and other toxic agents. Many everyday household products contain hazardous materials, and they also exist in communities in larger quantities. Accordingly, hazardous materials incident response is a facet of emergency services (first response capability as a minimum) regardless of an agency's specialized training. Within Lee County, the City of Fort Myers Fire Department functions as the sole state-funded regional hazardous materials team. Accordingly, multiple departments provide supplemental support for incident response and participate in collaborative training with the regional team. The district's support exists in the form of staff certified as state hazardous materials technicians (19 total), who are available for immediate mutual aid response when requested by the regional team. Within the district, initial hazardous materials response (as first responders; not an independently operational team) is a component of all frontline suppression apparatus and detection equipment of a four-gas monitor, thermal imaging camera (TIC), Fluoride paper, and pH paper as some of the tools of related response. The district does not maintain PPE specific to hazardous materials response.

Marine and Shipboard Rescue and Firefighting Services

Lee County of Southwest Florida is a tropical and coastal area, making it a popular retirement and tourism destination. Maritime activities are a daily occurrence throughout the year, leading to numerous emergencies in the waterways or shorelines. Numerous Lee County fire districts with jurisdictional coastline comprise the Marine Emergency Response Team (MERT). Additionally, local law enforcement agencies and the U.S.
Coast Guard (station on Fort Myers Beach) are regularly involved in maritime response efforts. As a member of this collaborative response network, the district maintains a fireboat (Marine 70) with personnel assigned daily to respond emergently for firefighting and other marine-based incidents (e.g., dive rescue).

Map 13: MERT Response Zones


E41 F59 F60 F61 F62 F63 F64 F65 F66 F67
I15 I16 I17
G3 G4 H1 H2 H3 H4 H5 H6 H7 H8
I18 I19 I20
G7 G8 H9 H10 H11 H12 H13 H14 H15 H16 H17 I21 I22 I23 I24 I25
G11 G12 G13 H18 H19 H20 H21 H22 H23 H24 H25 H26 I26 I27 I28 I29 I30
G15 G16 G17 H27 H28 H29 H30 H31 H32 H33 H34 H35 I31 I32
K1
G19 G20 G21 H36 H37 H38 H39 H40 H41 H42 H43 H44 H45
K2 K3
G23 G24 G25 G26 H46 H47 H48 H49 H50 H51 H52 K4 K5 K6 K7 K8
K9 K10 K11
G28 G29 G30 G31 G32 H53 H54 H55 H56 H57 K12 K13 K14 K15 K16 K17 K18 K19 K20
G33 G34 G35 G36 G37 G38 H58 H59 K21 K22 K23 K24 K25 K26 K27 K28 K29 K30 K31 K32 K33
G39 G40 G41 G42 G43 G44 G45 K34 K35 K36 K37 K38 K39 K40 K41 K42 K43 K44 K45
G46 G47 G48 G49 G50 K46 K47 K48 K49 K50 K51 K52 K53 K54 K55 K56
G51 G52 G53 G54 G55 K57 K58 K59 K60 K61 K62 K63 K64 K65 K66 K67 K68
G56 G57 G58 G59 G60 K69 K70 K71 K72 K73 K74 K75 K76 K77 K78 K79 K80 K81
Truckland
Iona
Fort Myers Villas
Villas
Whiskey Creek
Pine Island Flatwoods Preserve
Estero Bay
Bunche Beach
Forest Island Park
San Carlo Park

Community Risk Reduction

The District recognizes that an effective community risk assessment must consider both individual property vulnerabilities and comprehensive evaluations of community-wide hazards.

To accurately assess community risk, the District first identifies current physical and incident-related risks, along with the nature and scope of all hazards within its jurisdiction. Fire Prevention and Operations divisions work collaboratively to analyze review risk categorization and its implications for resource deployment, considering a range of factors including cultural, economic, historical, environmental, and operational characteristics.

Hazards are defined as measurable, identifiable causes of incidents in the community. IMFD has generally classified these into four categories: human actions or behaviors, hazardous materials, mechanical threats, and natural hazards. For each category, the District regularly evaluates potential threats, consequences, and impacts. Using this data, the District develops and applies operational strategies aimed at reducing identified risks, wherever possible.

Fire Prevention

The Iona McGregor Fire District serves as the Authority Having Jurisdiction (AHJ) for fire and life safety within the community. Pursuant to Florida Statute 633.118, local fire officials, including special district fire service providers and their designees, are authorized to enforce fire safety laws and State Fire Marshal rules within their respective jurisdictions. Under this authority, IMFD administers and enforces the Florida Fire Prevention Code, including adopted National Fire Protection Association (NFPA) standards, to protect life and property.

Under this authority, the District provides regulatory oversight for approximately 4,900 existing commercial and multi-family residential occupancies. In addition, the bureau conducts approximately 6,000 inspections annually, including required life safety inspections of existing commercial and residential occupancies, permit-related inspections associated with new construction, tenant improvements, fire protection systems, and renovations to existing properties. These activities support code compliance, hazard mitigation, and the protection of life and property.

The Fire Prevention Bureau is led by the Fire Marshal and staffed by one Deputy Fire Marshal, four Fire Inspectors, and one Community Relations Specialist. This structure supports both regulatory functions and community risk reduction initiatives through coordinated enforcement, education, and public outreach.

The District's permitting, plan review, and development review processes are conducted in coordination with Lee County Community Development. This collaborative model helps ensure that commercial construction, site development, and infrastructure projects meet applicable fire and life safety requirements. Required inspections and approvals are completed throughout the construction process, with field personnel verifying critical elements such as fire hydrant placement, fire apparatus access, roadway dimensions, water supply features, and related life safety systems.

Inspection data, permit activity, and annual pre-incident planning are coordinated through interconnected software platforms, including Fire Prevention Mobile, FlowMSP Visual Pre-Plans, and Lee County Computer Aided Dispatch (CAD). This integrated system enables the District to identify hazards, track occupancy risk factors, maintain current operational intelligence, and provide responding personnel with real-time access to critical site information. The coordination of prevention, planning, and response data enhances strategic planning, operational readiness, and data-informed decision-making.

Lee County plan review staff, IMFD officers, and inspection personnel are required to obtain and maintain applicable State of Florida Life Safety Inspector certifications. Certifications are renewed through approved continuing education, ensuring personnel remain current with evolving codes, standards, and industry best practices.

Fire Investigation, Origin and Cause

The Iona McGregor Fire District has established operating guidelines that provide a structured, tiered approach to fire investigations. This process supports compliance with statutory requirements and promotes the accurate determination of fire and explosion origin and cause.

Pursuant to Florida Statute 633.112, the District, as the Authority Having Jurisdiction (AHJ), is responsible for conducting an initial investigation to determine the origin and cause of any fire or explosion occurring within its jurisdiction. This responsibility is typically carried out by the company officer or battalion chief in command at the scene.

When the initial officer is unable to clearly determine the origin and cause, a secondary level of investigation is initiated. In these cases, the Fire Marshal, Deputy Fire Marshal, and designated IMFD fire investigators are available for 24-hour call-back response. When appropriate, IMFD investigators may request additional assistance from the Lee County Fire Arson Task Force.

Fires or explosions meeting the reporting criteria established in Florida Administrative Code 69D-4.001 are referred to the Bureau of Fire, Arson, and Explosives Investigations for further investigation.

The District's tiered investigation model helps ensure timely scene evaluation, proper evidence preservation, coordinated interagency response, and compliance with applicable state reporting requirements.

Public Education

In addition to providing emergency services, the Iona McGregor Fire District maintains a comprehensive public education program designed to address identified community risks and engage targeted populations. One of the District's most prominent initiatives is its cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) training program, delivered in alignment with American Heart Association (AHA) guidelines. Given the District's significant senior population, IMFD offers regularly scheduled CPR/AED courses to residents, strengthening early bystander intervention and improving the likelihood of survival from sudden cardiac arrest.

Each year, IMFD collaborates with more than 15 daycare centers and schools during a six-week period in support of Fire Prevention Month. These programs are specifically designed to deliver age-appropriate and engaging fire and life safety education to children and youth.

The Fire Prevention Public Education Division also coordinates a variety of additional programs and outreach events, including community open houses, Camp Brave Heart, summer safety campaigns, fire extinguisher training, falls prevention initiatives in partnership with Lee Health Trauma Services, and residential fire safety education, among others. Additional program information is available on the District's website at ionafiredistrict.com.

D. Current Deployment and Coverage Areas

Points of Service Delivery

District coverage is accomplished from the five stations located within the 39.48 square miles of area.

Map 14: Station Locations


73


74


IONA-McGREGOR
FIRE AND RESCUE DISTRICT


IONA McGREGOR FIRE DISTRICT
STATION 71


72

Minimum Deployment Resources

The district employs 82 operational personnel led by a deputy chief of operations. Each of three identical shifts works 24 hours on duty (0700-0700), followed by 48 hours off duty. Each shift's staffing and rank structure is one battalion chief (shift commander), five station lieutenants, five engineers (apparatus driver/operators), and 16 firefighters totaling 27 per shift. Each non-transport medical unit is staffed with two personnel, and each fire apparatus (engine or aerial) is staffed with at least three personnel. The daily staffing minimum is 21, and the maximum is 26 per shift (excluding the battalion chief).

Station 71 staffing: lieutenant, engineer, two firefighters

Station 72 staffing: lieutenant, engineer, four firefighters

Station 73 staffing: lieutenant, engineer, four firefighters

Station 74 staffing: lieutenant, engineer, four firefighters

Station 75 staffing: lieutenant, engineer, two firefighters

Table 1: Station Apparatus and Staff

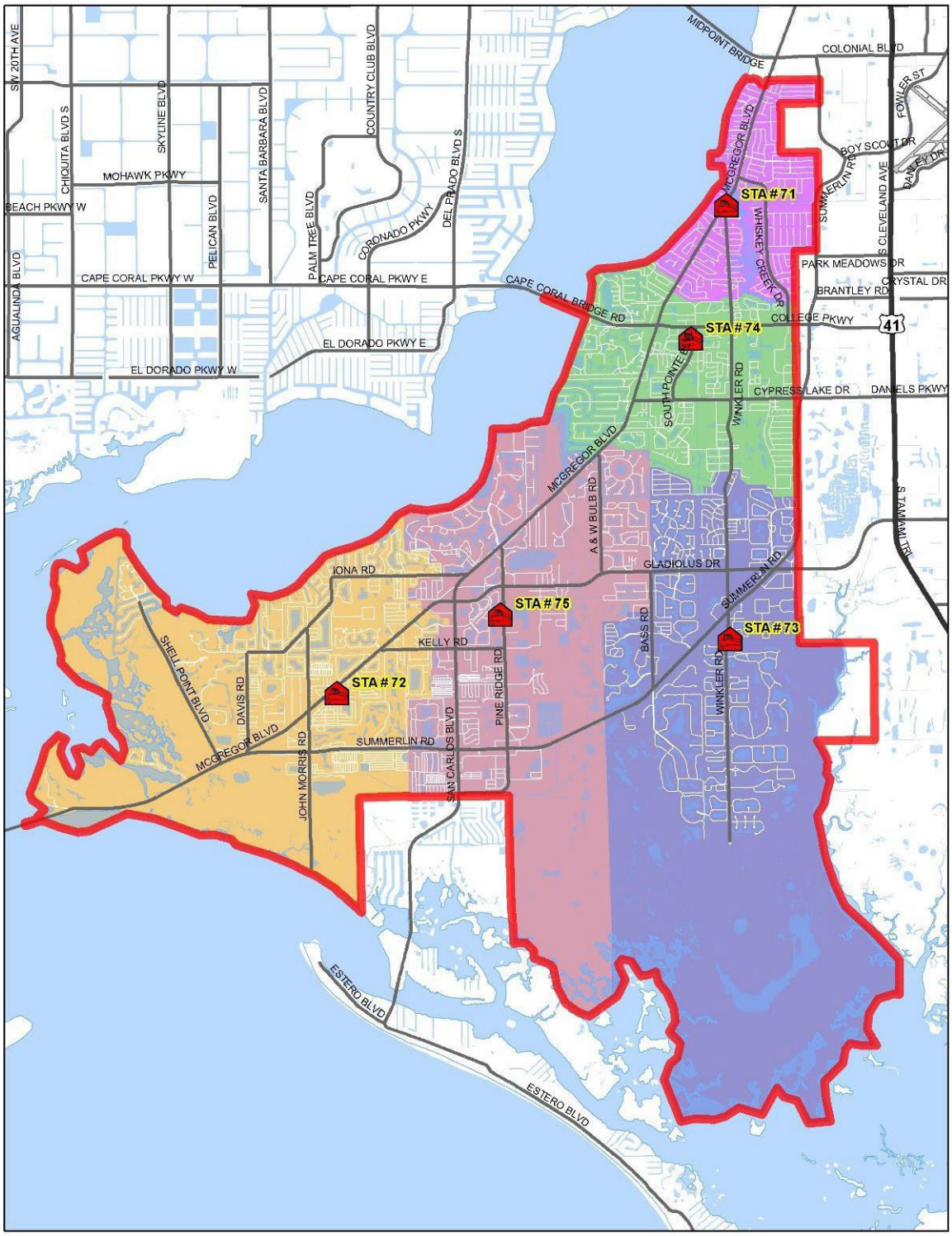
Station 71	Station 72	Station 73	Station 74	Station 75
Engine 71	Engine 72	Squad 73	Truck 74	Engine 75
Lieutenant	Lieutenant	Lieutenant	Lieutenant	Lieutenant
Engineer	Engineer	Engineer	Engineer	Engineer
Firefighter	Firefighter	Firefighter	Firefighter	Firefighter
Firefighter	Firefighter	Firefighter	Firefighter	Firefighter
	Rescue 72	Rescue 73	Rescue 74	Battalion 70
	Firefighter	Firefighter	Firefighter	Battalion Chief
	Firefighter	Firefighter	Firefighter	

Response Areas

Despite a model of closest unit response and automatic/mutual aid, there are defined zones for each station. These zones were generally based on geographical miles between fire stations. Each station's general response zone is shown on the following map and depicted by color: Zone 71 (Station 71); Zone 72 (Station 72); Zone 73 (Station 73); Zone 74 (Station 74); Zone 75 (Station 75).

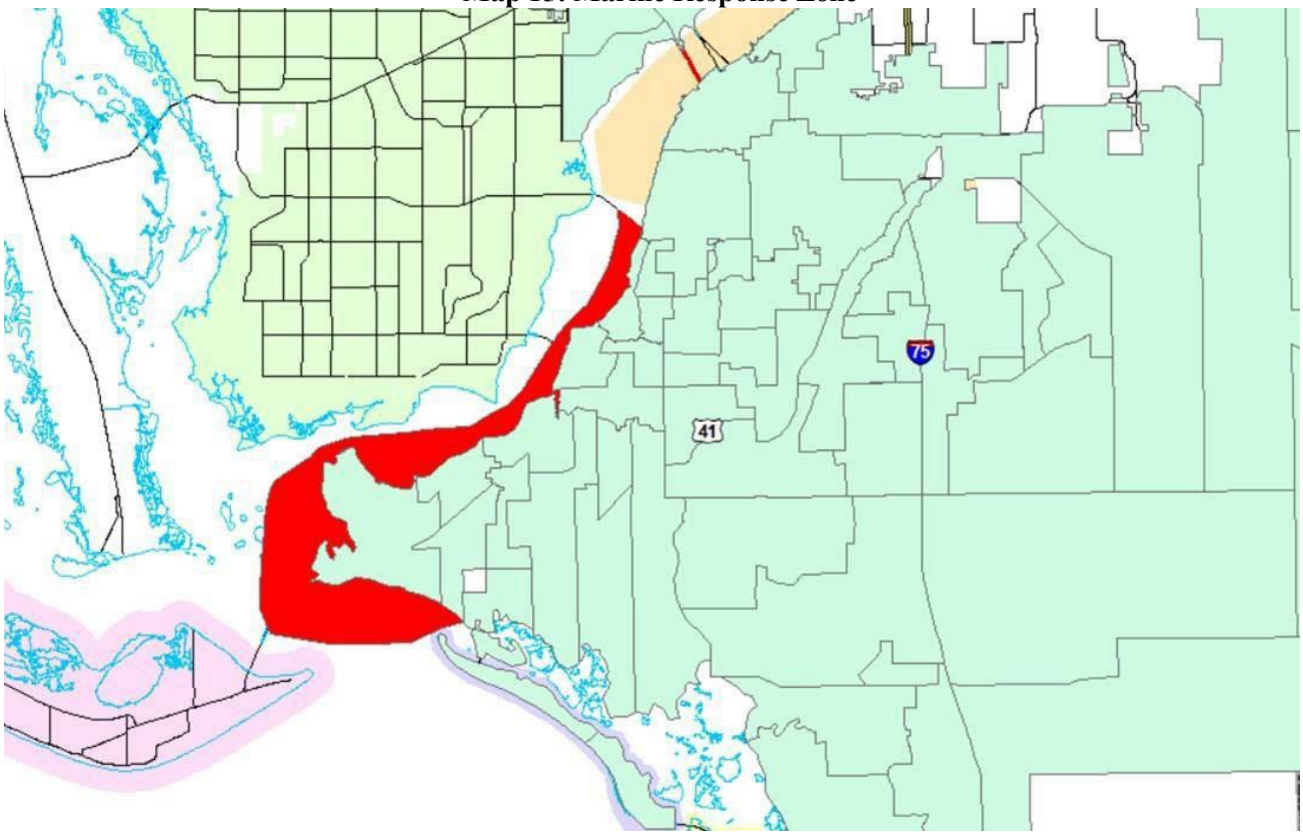
Map 15: Station Response Zones

Iona-McGregor Fire Protection & Rescue District
Station Response Zones



In addition to the land-based response zones, the district is responsible for its marine response zone as depicted in red on the following map.

Map 15: Marine Response Zone



E. Summary of Community Response History

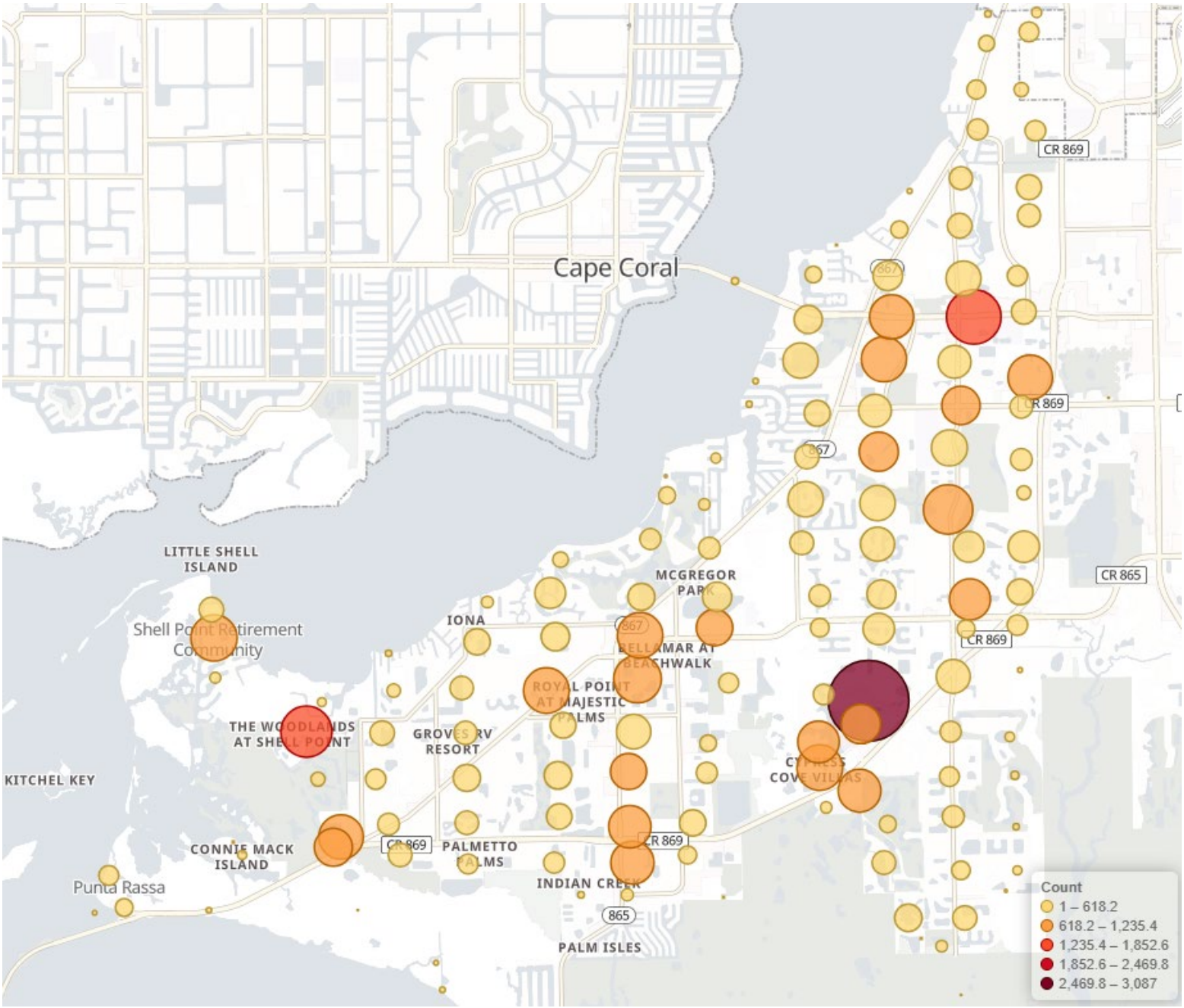


Figure 7: Incident Response Concentration

The above chart depicts incident response concentration throughout the District's response areas for 2021-2025.

F. Community Priorities, Expectations, and Performance Goals

Mission Statement

The district developed a community-driven strategic plan for the years 2021-2026. As part of the planning process, the existing mission was reviewed and amended. The following mission statement was established: "We exist to exceed the expectations of our community by protecting lives and property through exemplary emergency response, community risk reduction, and public outreach."

Community Service Priorities

On August 20, 2020, a meeting with community stakeholders was conducted to determine community service priorities and expectations. Using two structured instruments, the IMFD solicited feedback and input from a diverse demographic representation of the community and population as invited by the district. The rankings of the programs and services provided by the district are as follows:

Table 2: Community Prioritized Service Programs

Programs	Ranking
Emergency Medical Services	1
Rescue – Basic & Technical	2
Fire Suppression	3
Domestic Preparedness Planning and Response	4
Hazardous Materials	5
Marine Rescue and Firefighting	6
Community Risk Reduction/Fire Prevention	7
Public Fire and Life Safety Education	8
Fire Investigation	9

Community Service Expectations

Understanding what communities expect of their fire and rescue service organization is critically important to developing a long-range perspective. With this knowledge, internal emphasis may need to be changed or bolstered to fulfill the communities' needs. The following are the top expectations of the community stakeholders:

- Quick response times
- Community outreach/involvement
- Highly trained response personnel
- Staff that is dedicated, professional, kind, and compassionate
- Adequate staffing
- Fiscal responsibility

Historical Performance Goals

The district has not previously identified emergency response performance goals. The purpose of this study is to establish these performance goals and objectives. Once established, these goals will be monitored with the goal of continuous performance improvement.

G. Community Risk Assessment and Risk Levels

Risk Assessment Methodology

Methodology (Probability/Consequence/Impact of Event Risk)

After researching several models for a detailed evaluation of individual properties, the district adopted a form of the risk hazard and value evaluation (RHAVE) assessment model. RHAVE is facilitated by both field inspection, and measurements then applied to a computer spreadsheet. This was deployed as the district's primary means to quantify the community risk evaluation on a micro-level for each property under district authority.

RHAVE evaluates the risk, hazards, and value of a building with the output revealing a quantitative value, Occupancy Vulnerability Assessment Profile (OVAP). This OVAP score, when compared against a risk value range, indicates the level of risk present for any given subject property or complex. The process also accentuates areas of concern related to fixed protection systems and life safety measures that may exist to reduce risks.

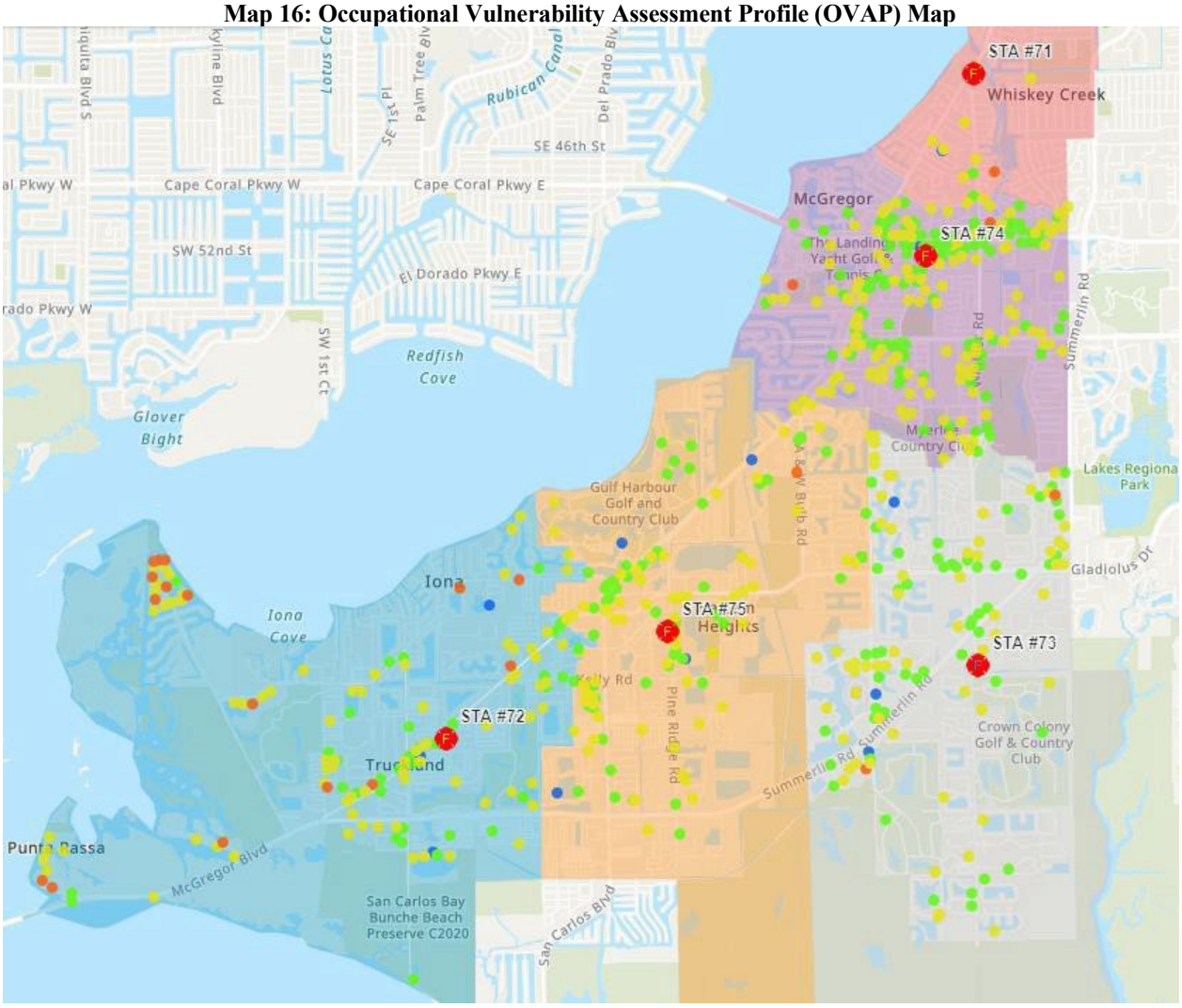
Risk	OVAP Score
Maximum	40-55
High	26-39
Moderate	15-25
Low	0-14

The process for this assessment involved cooperation between the fire prevention/education division and operations crews. By using this method, the district tracked and assessed over 5,000 occupancies and properties.

Each property is assessed for the risk posed by the following categories:

- Hazard characteristics general
- Community impact
- Life safety impact
- Building design information / property value
- Water demand
- Regulatory oversight / current risk protections
- Human activity and experience
- Fire load/hazard materials - event mitigation capacities

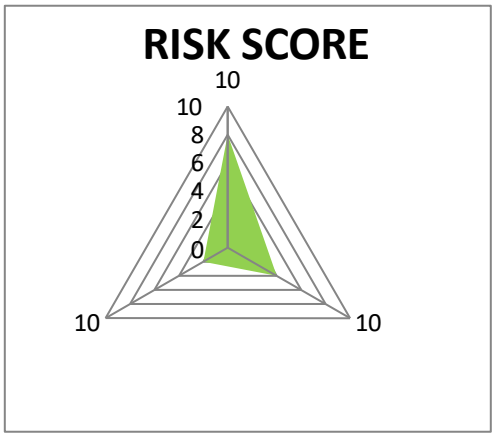
Map 16: Occupational Vulnerability Assessment Profile (OVAP) Map



In early 2020, the district further developed its risk assessment methodology to include a broader spectrum for classifying risks. The district adopted an "all hazards risk assessment" concept highlighted by a three-axis methodology applied to more than just fire-related incidents. The district's all hazards' risks were identified by the following classifications:

- Fire suppression
- Emergency medical response
- Technical rescue
- Hazardous materials
- Marine

This objective has allowed the district to use its initial data collection process and expand the effort to even more detailed classifications. Like the RHAVE model, the three-axis methodology assesses an emergency call type based on a probability of incidence and consequence to the community. The third axis then adds the dimension of impact on the organization.



A score is then produced, allowing the classification of a particular risk to be categorized by risk as either low, moderate, or high.

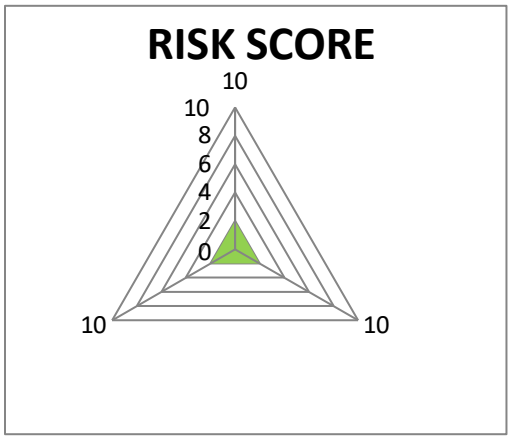
To produce a risk score for each category and classification of risk, a number was assigned to reflect the variances in each component of the three-axis model. For example, when evaluating the probability of a fire suppression event, a value of 2 was given for an event that happens as infrequently as annually or perhaps quarterly, a 4 assigned to an event that occurs monthly, a 6 for weekly, 8 for daily and finally a 10 was assigned to an event type that occurs multiple times each day across the district.

Within the three-axis model, consequence evaluates how many are affected in the community by an event. Using the fire suppression risk classification, a 2 was assigned to an event that affects an individual or single business. Numbers 4-10 are assigned as more people are affected by the event.

The impact of an event reflects the number of fire suppression personnel who are required to mitigate an incident. If 4 or less are needed to mitigate a fire-suppression risk, the lowest number of 2 was applied. Escalation of organizational impact progresses to a maximum number of 10 assigned when over 20 personnel are required to mitigate an incident.

The next step was to determine risk categories for each classification of risk. Risk category was determined after assigning risk scores to the various incident types within each risk class. Once scores were determined, categories were defined by assigning score ranges.

Below is an example of how the three-axis model was utilized to produce a score for a fire-suppression incident type which was determined to be a low-risk event.



LOW RISK FIRE SUPPRESSION	
Probability of occurrence	**2**
Consequence to community	**2**
Impact on Fire Department	**2**
SCORE	**4.898979**

Fire Suppression

Fire suppression risk categories were defined as low, moderate, and high. The score ranges were assigned after assessing the scores produced by a variety of incident types using the three-axis model.

Table 3: Risk Scoring - Fire Suppression

Fire Risk Assessment Matrix
Probability
2 = Quarterly/Yearly 4 = Monthly 6 = Weekly 8 = Daily 10 = Multiple, Daily
Consequence
2 = Individual/Business 4 = Multiple people (2-4)/Businesses 6 = Multiple people (5-10)/Businesses/Financial impact to community 8 = Multiple people (11-20) 10 = Multiple people (over 20) Community/Region
Impact
2 = Four or less 4 = Five to Eight 6 = Nine to Fourteen 8 = Fifteen to 20 10 = Over 20

Fire Risk Level Categories
Low= <21
Moderate= 21-40
High= >40

Emergency Medical Services

Emergency medical services (EMS) risk categories were defined as minimum, low, moderate, and high. The score ranges were assigned after assessing the scores produced by a variety of incident types using the three- axis model.

Table 4: Risk Scoring - EMS

Emergency Medical Risk Assessment Matrix
Probability
2 = Quarterly/Yearly 4 = Monthly 6 = Weekly 8 = Daily 10 = Multiple, Daily
Consequence
2 = Individual/Business 4 = Multiple people (2-4)/Businesses 6 = Multiple people (5-10)/Businesses/Financial impact to community 8 = Multiple people (11-20) 10 = Multiple people (over 20) Community/Region
Impact
2 = Four or less 4 = Five to Eight 6 = Nine to Fourteen 8 = Fifteen to 20 10 = Over 20

EMS Risk Level Categories

Min= <15
Low= 15-21
Moderate= 21-30
High= >30

Technical Rescue

Technical rescue risk categories were defined as low, moderate, and high. The score ranges were assigned after assessing the scores produced by a variety of incident types using the three-axis model.

Table 5: Risk Scoring - Technical Rescue

Technical Rescue Assessment Matrix
Probability
2 = Quarterly/Yearly 4 = Monthly 6 = Weekly 8 = Daily 10 = Multiple, Daily
Consequence
2 = Individual/Business 4 = Multiple people (2-4)/Businesses 6 = Multiple people (5-10)/Businesses/Financial impact to community 8 = Multiple people (11-20) 10 = Multiple people (over 20) Community/Region
Impact
2 = Four or less 4 = Five to Eight 6 = Nine to Fourteen 8 = Fifteen to 20/ or need for S73 or IMFD Tech team 10 = Need for USAR team

Technical Risk Level Categories

Low= <21
Moderate= 21-30
High= >30

Hazardous Materials (HazMat)

Hazardous materials risk categories were defined as low, moderate, and high. The score ranges were assigned after assessing the scores produced by a variety of incident types using the three-axis model.

Table 6: Risk Scoring - HazMat

Hazardous Materials Risk Assessment Matrix
Probability
2 = Quarterly/Yearly 4 = Monthly 6 = Weekly 8 = Daily 10 = Multiple, Daily
Consequence
2 = Individual/Business 4 = Multiple people (2-4)/Businesses 6 = Multiple people (5-10)/Businesses/Financial impact to community 8 = Multiple people (11-20) 10 = Multiple people (over 20) Community/Region
Impact
2 = Four or less 4 = Five to Eight 6 = Nine to Fourteen 8 = Over 15 and/or additional resources needed to mitigate 10 = Need for Tech Team

HazMat Risk Level Categories

Low= <21
Moderate= 21-30
High= >30

Marine Response

Marine risk categories were defined as low, moderate, and high. The score ranges were assigned after assessing the scores produced by a variety of incident types using the three-axis model.

Table 7: Risk Scoring - Marine

Marine Response Assessment Matrix
Probability
2 = Quarterly/Yearly 4 = Monthly 6 = Weekly 8 = Daily 10 = Multiple, Daily
Consequence
2 = Individual/Business 4 = Multiple people (2-4)/Businesses 6 = Multiple people (5-10)/Businesses/Financial impact to community 8 = Multiple people (11-20) 10 = Multiple people (over 20) Community/Region
Impact
2 = Four or less 4 = Five to Eight 6 = Nine to Fourteen 8 = Fifteen to 20 10 = > 20

Marine Risk Level Categories

Low= <15
Moderate= 15-25
High= >25

Building on this all-hazards risk assessment model, the district can look at using its planning zones to further identify concerns. When data is collected, it is analyzed additionally for potential critical infrastructures within those zones. Inside this analysis, things such as transportation, major evacuation corridors, electrical power and utility services, and major facilities like hospitals or schools can be identified and preplanned.

Planning Areas/Zones

Regarding the development of planning zones, it is important to understand the currently designed division of the district. The IMFD has five operational zones, one for each of its five stations. The district developed these by following a traditional historical fire service norm of a fixed deployment operational model. These zones were selected largely based on geographical miles between fire stations and available land resources.

These zones support operational functions in several ways. Primarily, emergency call run cards correlate the sequence of truck due assignments based on these zones. While closest unit response agreements modify the matrix slightly, the station assignments and zones give a starting point for the basics. Training uses these zone assignments to plan multi-company activities to maintain maximum coverage for the district. Pre-plan assignments are assigned and tracked by these five station zones. Finally, the current methods for tracing call data utilize these same initial five zones. These current five zones provide a very clear and manageable approach to conducting analyses and gathering data that are beneficial to the agency's designs for self-assessment and continuous improvement.

These planning zones do roughly corollate with population density which is why there are significant size variations between the zones. Station 71/Zone 71, for instance, is a residential area significantly built out as opposed to station 73/Zone 73, which has a great deal of wetlands and open space to its south.

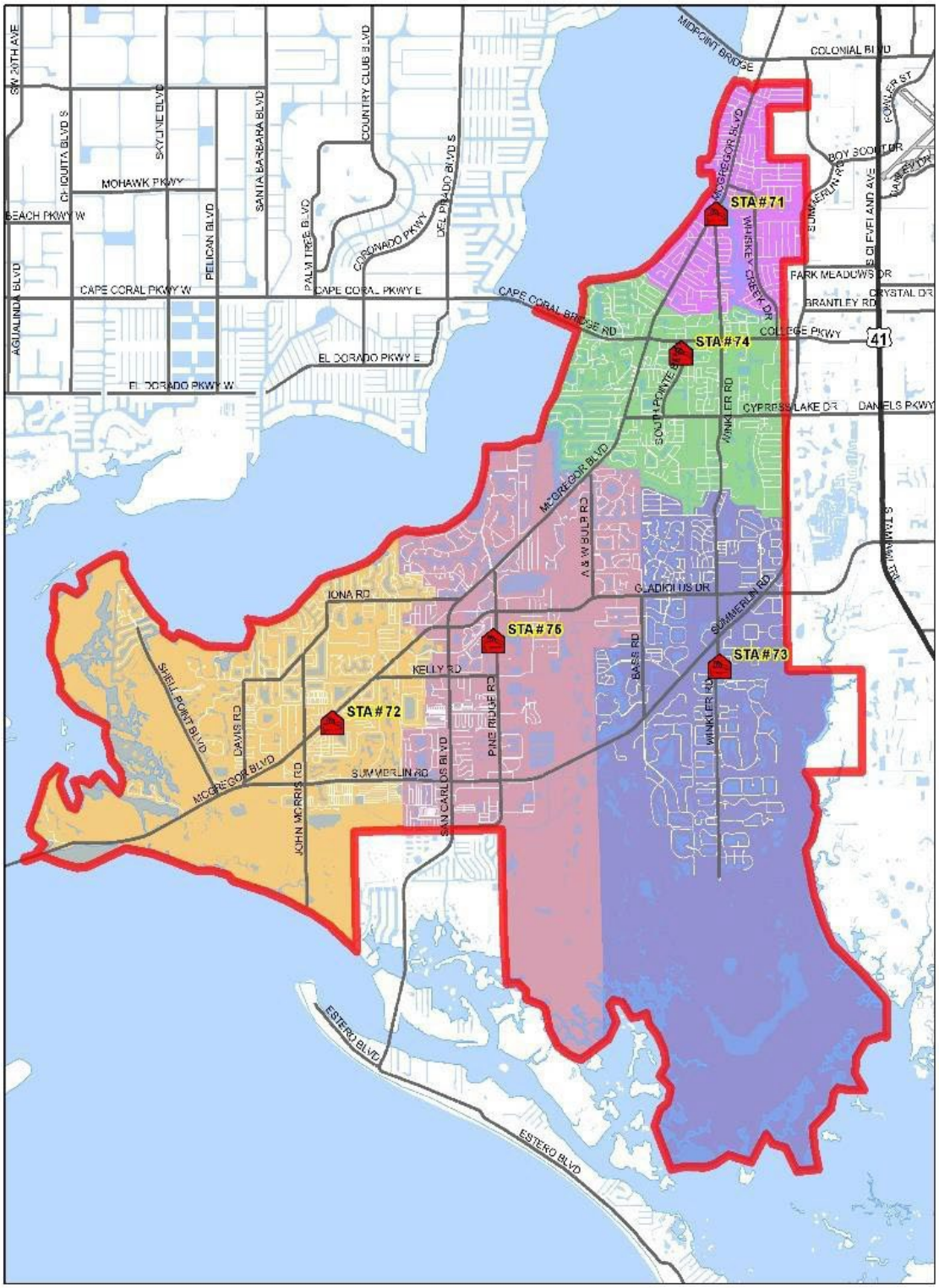
Table 8: Road Miles by Zone

Road Miles by Zone	
Zone 71	**44.6**
Zone 72	**93.9**
Zone 73	**85.1**
Zone 74	**75.9**
Zone 75	**97.1**
Total	**396.6**

As deeper analysis becomes useful in the future, the district agrees it can add features to these organizational elements to complement a more focused approach. For current assessment efforts, the district finds the most rational approach to planning zones is to utilize the current five geographic station zones.

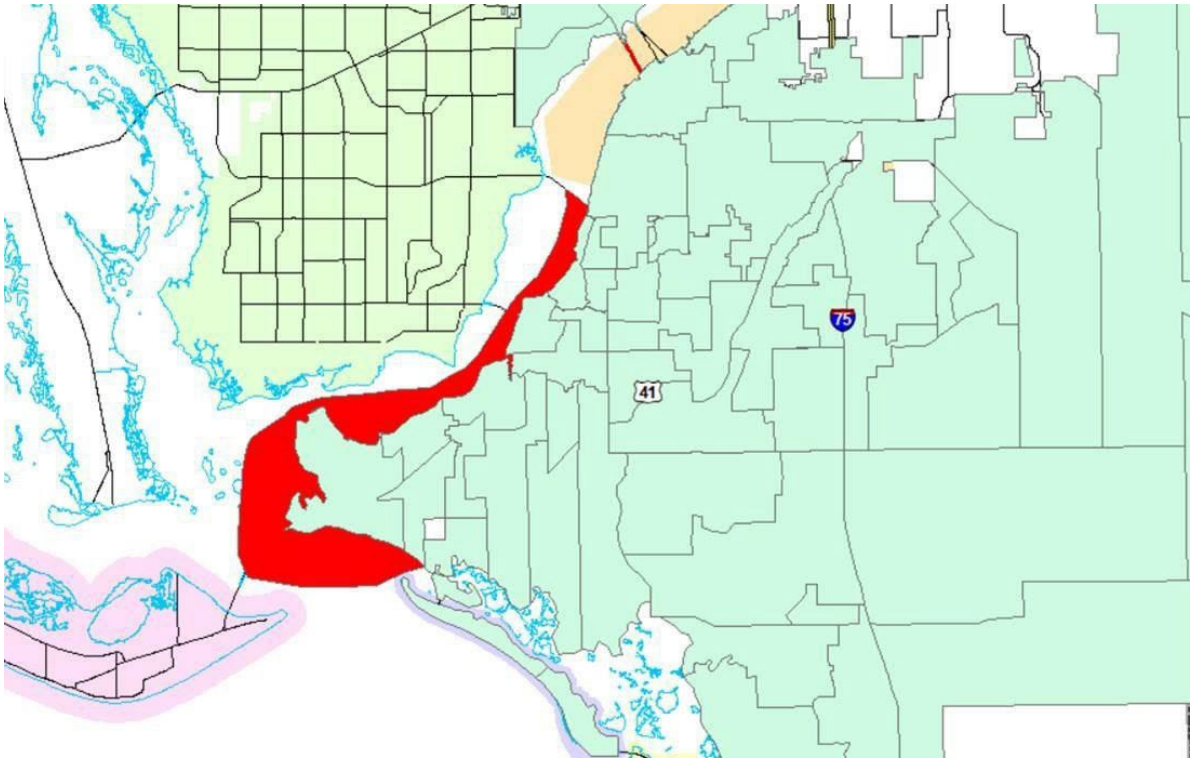
Map 17: Station Response Zones

Iona-McGregor Fire Protection & Rescue District
Station Response Zones



The district also has one marine planning zone.

Map 18:Marine Response Zone



Risk Assessment

Fire Suppression Services

The district provides fire suppression services from its five station locations. Four of the stations have fire engines with at least 700 gallons of water and 1,000 feet of 5-inch large diameter supply hose (LDH). These suppression units also have multiple attack lines in various configurations of 1.75 and 2.5 inches, supported by fire pumps capable of pumping 1,500 gallons per minute (gpm).

From Station 74, the district operates one quint apparatus with a 100-foot aerial platform. This unit carries 300 gallons of water and 300 feet of 5-inch LDH. This unit also carries 1¾ and 2½ inch attack lines supported by a 1,500 gallon-per-minute pump.

All suppression units have Class A foam capabilities and are staffed with a fire officer, pump operator, and a minimum of one firefighter. All positions are certified by the State of Florida in their respective positions prior to being allowed to operate in those functions.

The following are some examples of fire suppression incidents in each of the identified categories.

- **Low-Risk**- (Risk score <21) Examples- Fires requiring only one suppression unit to mitigate, such as automobile fires, dumpster fires, small grass fires, and fires in detached buildings.

- **Moderate-Risk**- (Risk score 21-40) Examples- Fires in single-family and duplex residences, mobile homes, etc.
- **High-Risk**- (Risk score >40) Examples- Fires in multi-family residences, high-rise structures, large commercial structures, etc.

Emergency Medical Services

The district has coordinated its medical response with Lee County EMS to provide quality service to the community. Working in conjunction with Lee County EMS, who provides patient transport, the district provides advanced life support (ALS) non-transport services. This allows the opportunity to match the appropriate response to the request for assistance. The district responds with ALS non-transport capabilities from all eight of its response units.

The following are some examples of EMS incidents in each of the identified categories.

- **Minimum-Risk –** Examples- BLS calls ran only by EMS, not requiring a fire response.
- **Low-Risk**- (Risk score <21) Examples- ALS or basic life support (BLS) calls for up to 2 patients.
- **Moderate-Risk**- (Risk score 21-30) Examples- Calls impacting more patients and/or requiring an increasing number of resources, i.e., cardiac arrest; multiple people injured/sick.
- **High-Risk**- (Risk score >30) Examples- Calls impacting an increasing number of patients and/or requiring an increasing number of resources, i.e., mass casualty incident (five or more patients).

Technical Rescue

The district provides varying levels of rescue services from its five station locations. Included in the scope of rescue services are automobile accidents, elevator rescues, rope, and confined space rescues. All five stations are equipped with the equipment and ability to mitigate minor elevator rescues and motor vehicle accidents with entrapment. For rope and confined space rescues or motor vehicle accidents of a more complex nature, Squad 73 is equipped with more equipment and staff trained to handle these responses.

The district is also a participating agency in Florida Urban Search and Rescue (USAR) Regional Team 6. For any rescue calls beyond the district's scope to handle, the USAR team is requested to assist.

The following are some examples of technical rescue incidents in each of the identified categories.

- **Low-Risk**- (Risk score <21) Examples- Minor vehicle accidents, elevator rescues, shore-based dive operation, single-unit response.
- **Moderate-Risk**- (Risk score 21-30) Examples- Motor vehicle accidents with entrapment, rope, or confined space rescues requiring district special operations personnel to mitigate.
- **High-Risk**- (Risk score >30) Examples- Need for more complex vehicle extrication or technical rescues requiring the involvement of USAR.

Hazardous Materials Services

The City of Fort Myers Fire Department is the regional state-funded hazardous materials response team. The district provides support to the regional team by supplementing with certified hazardous materials

technicians as requested. The district relies on this team to respond to and mitigate higher-risk hazardous materials incidents within the district boundaries.

The district responds to all hazardous materials incidents with a minimum of one engine company. Initial efforts are to assess and identify the hazard, isolate if possible, and determine the need for the City of Fort Myers Hazardous Materials Team to respond.

The following are some examples of hazardous materials incidents in each of the identified categories.

- **Low-Risk**- (Risk score <21) Examples- Small fuel leaks or odor investigations.
- **Moderate-Risk**- (Risk score 21-30) Examples- Larger spills or leaks requiring more personnel and additional resources.
- **High-Risk**- (Risk score >30) Examples- Leaks, spills, or odors that impact more people and require the response of the City of Fort Myers Hazardous Materials Team, etc.

Marine Fire Rescue Services

The district maintains a 32-foot marine response firefighting boat with a fire pump capable of flowing 500 gpm. This boat remains on the water, located at Marine Max on McGregor Boulevard, and is staffed by on-duty personnel who deploy from their assigned stations upon receipt of calls for service. The district responds with multiple neighboring law enforcement and fire agencies and the U.S. Coast Guard, as part of a marine emergency response team (MERT) to requests for emergency assistance. Additionally, a dive van outfitted with supplemental dive response equipment will be placed into service prior to Fall 2024. This unit supports marine vessel based and shore-based dive operations.

The following criteria were used in part to assist in defining marine fire risk categories.

- **Low-Risk**- (Risk score <15) Examples- Watercraft in distress, boat-based water rescue.
- **Moderate-Risk**- (Risk score 15-25) Examples- Search for missing person.
- **High-Risk**- (Risk score >25) Examples- Boat fire threatening other boats and/or structures.

Critical Task Analysis

A task analysis enables the district to plan accordingly for responses to the various classifications and categories of risk. The following critical task analysis is general in nature. It is important to note that multiple response types classified under the same category might require different tasks to mitigate.

Low-Risk Fire Suppression

The district responds to all low-risk fire suppression incidents with a minimum of 1 engine or truck and an effective response force (ERF) of 3. For low-risk fire suppression incidents, the district offers the following general task guidelines:

Table 9: Critical Tasking - Fire Suppression - Low Risk

Low-Risk Fire Suppression	
Critical Task	**Minimum Personnel**
Command/Safety/Investigation	1
Water supply	1
Attack line	1
Total ERF	**3**

Moderate-Risk Fire Suppression

The district responds to moderate-risk fire suppression incidents with an ERF of 3 engines, 1 ladder, and 1 chief officer, for a total of 17 response personnel. For moderate risk fire suppression incidents, the district offers the following general task guidelines:

Table 10: Critical Tasking - Fire Suppression - Moderate Risk

Moderate-Risk Fire Suppression	
Critical Task	**Minimum Personnel**
Command/Safety/Accountability	**1**
Water supply	**2**
Attack line	**3**
Backup line	**3**
Inside Team-(e.g., Forcible entry, Search and Rescue)	**2**
Outside Team- (e.g. Ventilation, VES, Forcible Entry, Ladders, Utilities, etc.)	**2**
RIT	4
Total ERF	**17**

High-Risk Fire Suppression

The district responds to high-risk fire suppression incidents with 4 engines, 1 ladder, and 1 chief officer, for an ERF of 21. For high-risk fire suppression incidents, the district offers the following general task guidelines:

Table 11: Critical Tasking - Fire Suppression - High Risk

High-Risk Fire Suppression	
Critical Task	**Minimum Personnel**
Command/Accountability	1
Water supply	2
2 Attack lines	4
Evacuation	2
Inside Team-(e.g., Forcible entry, Search and Rescue)	2
Outside Team- (e.g. Ventilation, VES, Forcible Entry, Ladders, Utilities, etc.)	2
RIT	4
Safety Officer	1
Division Supervisor	1
Lobby Control	1
Staging Officer	1
Total ERF	**21**

Minimum-Risk EMS

The district does not respond to minimum-risk emergency medical requests for assistance, but Lee County Emergency Medical Services responds with a 2-person BLS or ALS rescue unit. This response provides for an ERF of two. Lee County EMS is responsible for patient transport as needed to a hospital facility.

For minimum-risk EMS incidents, LCEMS offers the following general task guidelines:

Table 12: Critical Tasking - EMS - Minimum Risk

Minimum-Risk EMS	
Critical Task	**Minimum Personnel**
Patient assessment/Treatment	1
Equipment handling	1
Total ERF	**2**

Low-Risk EMS

The district responds to low-risk emergency medical requests for assistance in conjunction with Lee County Emergency Medical Services with a 2-person ALS rescue unit or a 3-4 person ALS engine or truck, depending on incident location. This response provides for an ERF of four. Lee County EMS is responsible for patient transport as needed to a hospital facility.

For low-risk EMS incidents, the district offers the following general task guidelines:

Table 12: Critical Tasking - EMS - Low Risk

Low-Risk EMS	
Critical Task	**Minimum Personnel**
Patient assessment	1
Treatment/ Airway management	1
Treatment/ IV access/ Medication	1
Equipment handling	1
Total ERF	**4**

Moderate-Risk EMS

Moderate-risk EMS incidents are considered incidents that will present a greater workload and require more resources. For moderate-risk EMS incidents, Lee County EMS dispatches an additional ambulance.

For these moderate-risk events, the district responds with EMS with an ERF of 5 and offers the following general task guidelines:

Table 13: Critical Tasking - EMS - Moderate Risk

Moderate-Risk EMS	
Critical Task	**Minimum Personnel**
Incident command/safety	1
Patient assessment	1
Treatment/ Airway management	1
Treatment/ IV access/ Medication	1
Equipment handling	1
Total ERF	**5**

High-Risk EMS

High-risk EMS incidents typically have a very low probability of occurring, but if they do will likely have a high consequence in terms of people affected and require a high level of response to mitigate.

For these high-risk events, the district responds 2 fire engines, 4 EMS ambulances, 1 chief officer, and 1 EMS command officer for an ERF of 16 and offers the following general task guidelines:

Table 14: Critical Tasking - EMS - High Risk

High-Risk EMS	
Critical Task	**Minimum Personnel**
Command	1
Safety	1
Staging	1
Triage/Treatment/Transport	13
Total ERF	**16**

Low-Risk Rescue

The district responds to low-risk rescue incidents with a minimum of 1 engine or truck for an ERF of three. For low-risk rescue incidents, the district offers the following general task guidelines:

Table 15: Critical Tasking - Rescue - Low Risk

Low-Risk Rescue	
Critical Task	**Minimum Personnel**
Command/Safety	1
Water supply/Protection line	1
Extrication	1
Total ERF	**3**

Moderate-Risk Rescue

The district responds to moderate-risk rescue incidents with two engines or trucks and one chief officer for an ERF of seven. For moderate-risk rescue incidents, the district offers the following general task guidelines:

Table 16: Critical Tasking - Rescue - Moderate Risk

Moderate-Risk Rescue	
Critical Task	**Minimum Personnel**
Command/Safety	1
Water supply	1
Protection line	1
Extrication	4
Total ERF	**7**

High-Risk Rescue

The district responds to high-risk rescue incidents with 2 engines or trucks, 1 chief officer, and 6 special operations members for an ERF of 12. An incident is typically categorized as high-risk if external resources are necessary, such as the USAR team, or the escalating needs of the scene require more IMFD personnel. The incident commander can always request more resources, as necessary. For high-risk rescue incidents, the district offers the following general task guidelines:

Table 17: Critical Tasking - Rescue - High Risk

High-Risk-Rescue	
Critical Task	**Minimum Personnel**
Command/Accountability	1
Water supply	1
Protection line	1
Extrication/USAR team support	2
Safety	1
Special Operations	6
Total ERF	**12**

Low-Risk HazMat

The district responds to low-risk hazardous materials incidents with a minimum of 1 engine or truck for an ERF of 3. For these incidents, the district offers the following general task guidelines:

Table 18: Critical Tasking - HazMat - Low Risk

Low-Risk Hazardous Materials	
Critical Task	**Minimum Personnel**
Command/Safety	1
Investigate/Identify	1
Containment	1
Total ERF	**3**

Moderate-Risk HazMat

Moderate-risk hazardous materials incidents present an expanding workload and have the potential to necessitate additional external resources such as the Department of Transportation (DOT) and the Environmental Protection Agency (EPA). The district responds to moderate-risk hazardous materials incidents with 2 engines or trucks and 1 chief officer for an ERF of 7. The district offers the following general task guidelines:

Table 19: Critical Tasking - HazMat - Moderate Risk

Moderate-Risk Hazardous Materials	
Critical Task	**Minimum Personnel**
Command	1
Safety	1
Investigate/Identify	1
Containment/Scene Perimeter	2
Water supply	1
Attack/Decon line	1
Total ERF	**7**

High-Risk HazMat

The district responds to high-risk hazardous materials incidents with 2 engines or trucks, 1 chief officer, and 6 hazmat team members for an ERF of 13. An incident is typically categorized as high-risk if external resources are necessary, such as the hazmat team, or the escalating needs of the scene require more IMFD personnel. For high-risk hazardous materials incidents, the district offers the following general task guidelines:

Table 20: Critical Tasking - HazMat - High Risk

High-Risk Hazardous Materials	
Critical Task	**Minimum Personnel**
Command	1
Safety	1
Investigate/Identify	1
Contain/Perimeter/Tech support	2
Water supply	1
Attack/Decon line	1
Specials Operations	6
Total ERF	**13**

The district responds to all low and moderate/high-risk marine incidents with a minimum of 3 on the fireboat. The district's response is part of the unified response from partnering agencies that compose the Marine Emergency Response Team. The MERT has established an initial response matrix of a minimum of 5 respondents for all marine calls.

Low-Risk Marine

Low-risk marine responses are generally non-emergent in nature. In cooperation with the multiple partnering agencies that comprise the MERT, two water assets are typically dispatched to respond for an ERF of 3. For low-risk marine incidents, the district offers the following general task guidelines:

Table 21: Critical Tasking - Marine - Low Risk

Low-Risk Marine	
Critical Task	**Minimum Personnel**
Boat pilot	1
Patient care	2
Total ERF	**3**

Moderate/High-Risk Marine

Moderate/high-risk marine responses typically include small fire suppression incidents and extended search operations. The MERT dispatch to moderate-risk marine incidents is 5 fire department marine vessels for an ERF of 10. For moderate-risk marine incidents, the district offers the following general task guidelines:

Table 22: Critical Tasking - Marine - Moderate/High Risk

Moderate/High-Risk Marine	
Critical Task	**Minimum Personnel**
Boat Pilot	5
Patient care/Suppression	5
Total ERF	**10**

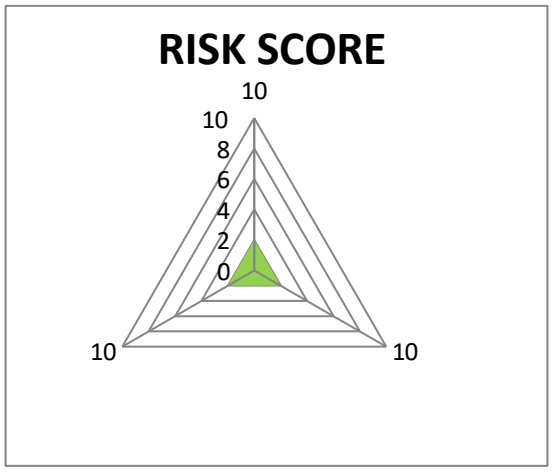
Risk Classification and Categories

Fire Risk Level Categories
Low= <21
Moderate= 21-40
High= >40

Low-Risk Fire Suppression

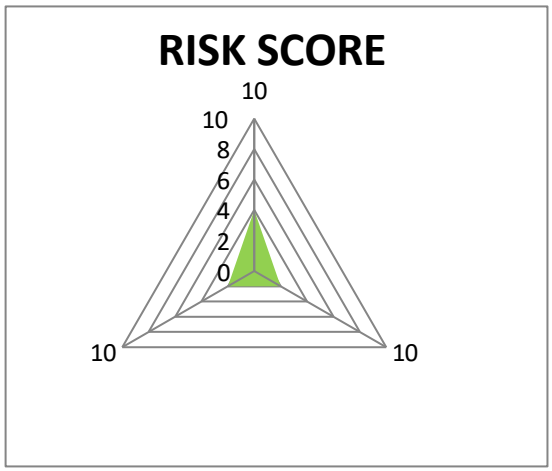
Below is an example of the risk scoring for a small dumpster fire. The score of 4.9 categorizes this fire as a low-risk.

RISK-Fire in dumpster	
Probability of occurrence	**2**
Consequence to community	**2**
Impact on fire department	**2**
SCORE	**4.898979**



Below is the risk score for a single vehicle fire with no exposures. The score of 8.5 also categorizes this as a low-risk.

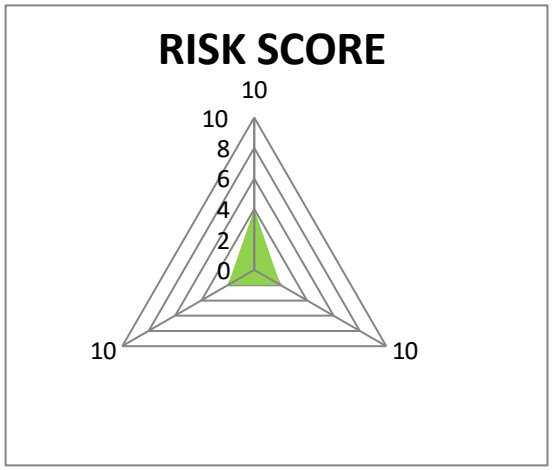
RISK-Vehicle fire no exposures	
Probability of occurrence	**4**
Consequence to community	**2**
Impact on fire department	**2**
SCORE	**8.485281**



Moderate-Risk Fire Suppression

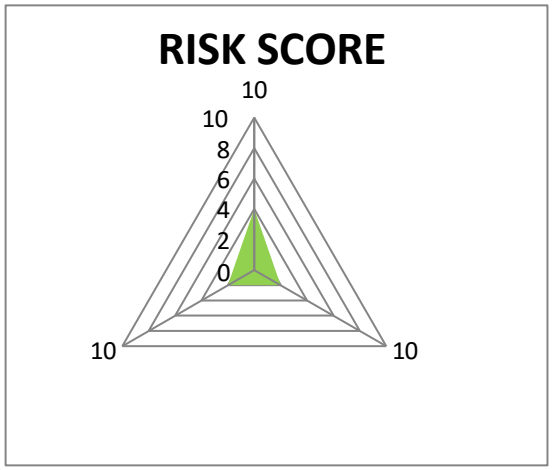
Below is an example of the risk scoring for a fire at a single-family residential structure of 2,500 square feet. The score of 25.9 categorizes this fire as a moderate risk.

RISK- Single family residence (2,500 square feet)	
Probability of occurrence	**2**
Consequence to community	**4**
Impact on fire department	**8**
SCORE	**25.92296**



Below is another example of a fire in a mobile home. This also results in a score of 25.9 and is categorized as a moderate-risk.

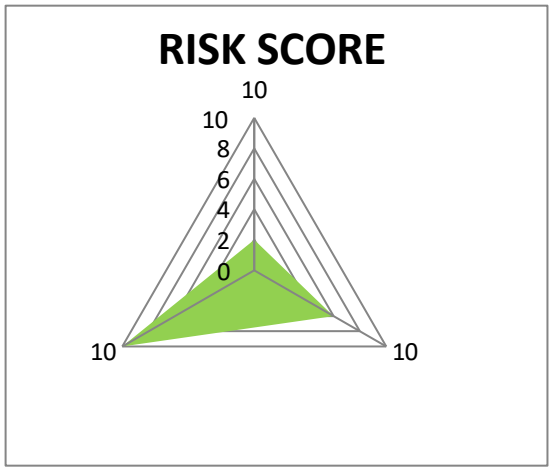
RISK- Mobile home fire	
Probability of occurrence	**2**
Consequence to community	**4**
Impact on fire department	**8**
SCORE	**25.92296**



High-Risk Fire Suppression

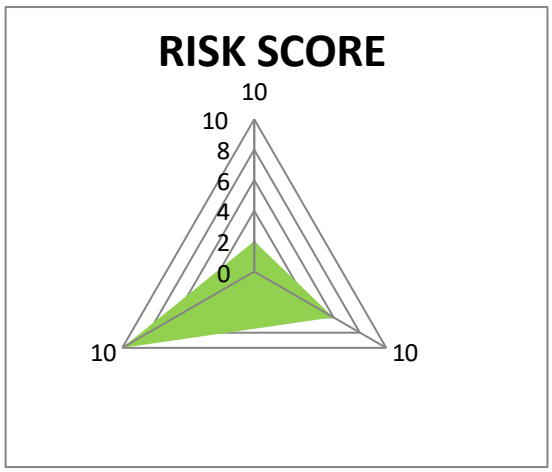
Below is an example of the risk scoring for a fire at a high-rise building. The score of 59.4 categorizes this fire as high-risk.

RISK- High rise fire	
Probability of occurrence	**2**
Consequence to community	**8**
Impact on fire department	**10**
SCORE	**59.39697**



Below is another example of the scoring for a fire at a commercial strip mall. The score of 45.5 categorizes this as a high-risk.

RISK- Strip mall fire	
Probability of occurrence	**2**
Consequence to community	**6**
Impact on fire department	**10**
SCORE	**45.51923**



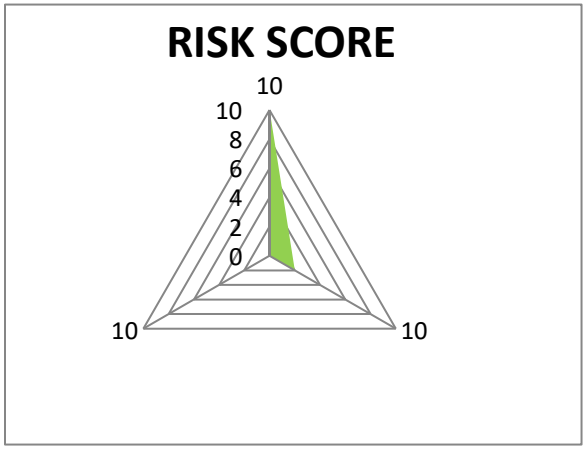
EMS Risk Level Categories

Minimum= <15
Low= 15-21
Moderate=21-30
High= > 30

Minimum-Risk Emergency Medical Services

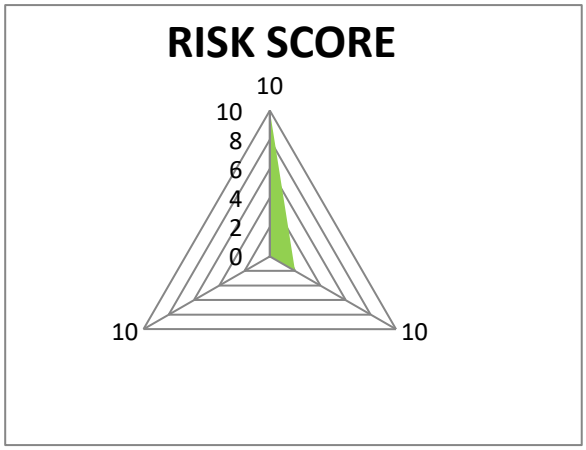
Below is an example of a call for a sick person with no priority symptoms, which is a BLS call. The score of 14.14 categorizes this call type as minimum-risk.

RISK- BLS medical-1 patient	
Probability of occurrence	**10**
Consequence to community	**2**
Impact on fire department	**0**
SCORE	**14.1421**



Below is another example of a call for someone with a minor laceration, which is a BLS call. This call receives the same score of 14.14 and is also categorized as minimum-risk.

RISK- BLS medical-1 patient	
Probability of occurrence	**10**
Consequence to community	**2**
Impact on fire department	**0**
SCORE	**14.1421**



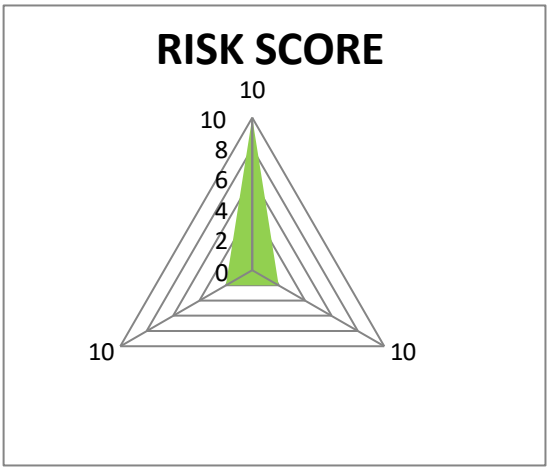
Low-Risk Emergency Medical Services

Below is an example of an advanced life support response to a single patient. The score of 20.2 categorizes this call type as low-risk.

RISK- ALS medical-1 patient	
Probability of occurrence	**10**
Consequence to community	**2**
Impact on fire department	**2**
SCORE	**20.19901**

Below is another example of a response to a basic life support single-patient call. This call type receives the same score of 20.2 and is also categorized as low-risk.

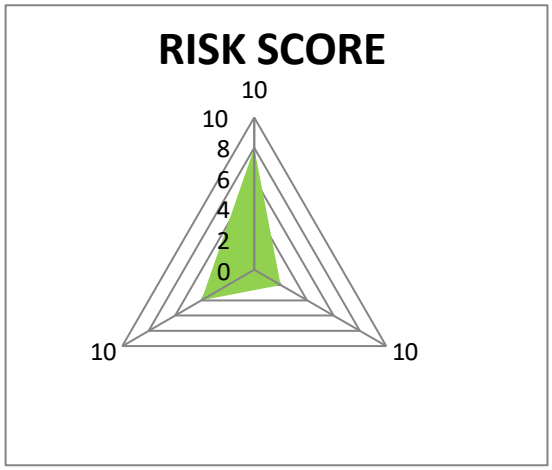
RISK- BLS medical-1 patient	
Probability of occurrence	**10**
Consequence to community	**2**
Impact on fire department	**2**
SCORE	**20.19901**



Moderate-Risk Emergency Medical Services

Below is an example of a response to a cardiac arrest call. The score of 25.9 categorizes this as moderate-risk.

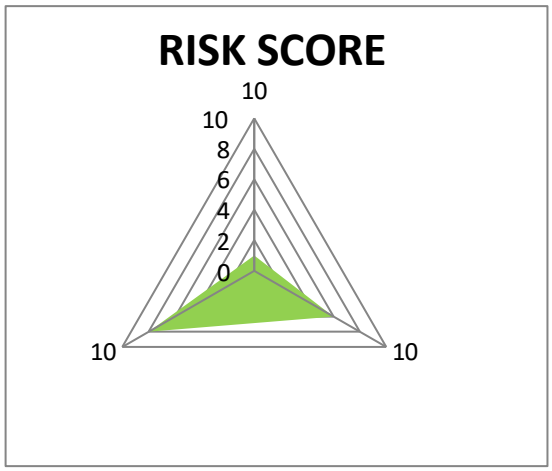
RISK-Cardiac Arrest	
Probability of occurrence	**8**
Consequence to community	**2**
Impact on fire department	**4**
SCORE	**25.92296**



High-Risk Emergency Medical Services

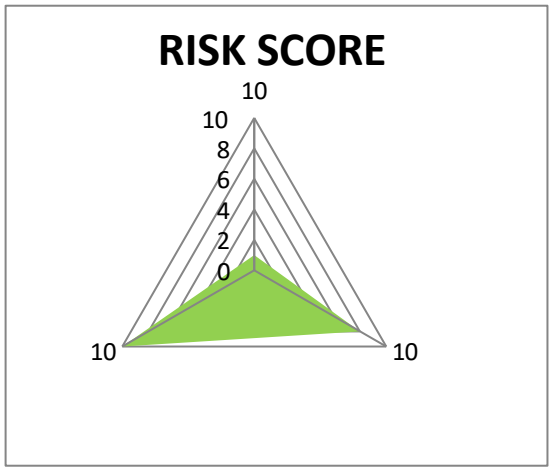
Below is an example of a response to a call for multiple patients (5-10). The score of 34.66 categorizes this as high-risk.

RISK-MCI (5-10 patients)	
Probability of occurrence	**1**
Consequence to community	**6**
Impact on fire department	**8**
SCORE	**34.66987**



Below is an example of an EMS call for a mass casualty incident with multiple patients (between 11-20). The score of 36.77 also categorizes this as a high-risk.

RISK- Mass Casualty (11-20 patients)	
Probability of occurrence	**1**
Consequence to community	**8**
Impact on fire department	**10**
SCORE	**57.28874**



Technical Risk Level Categories

Low= <21

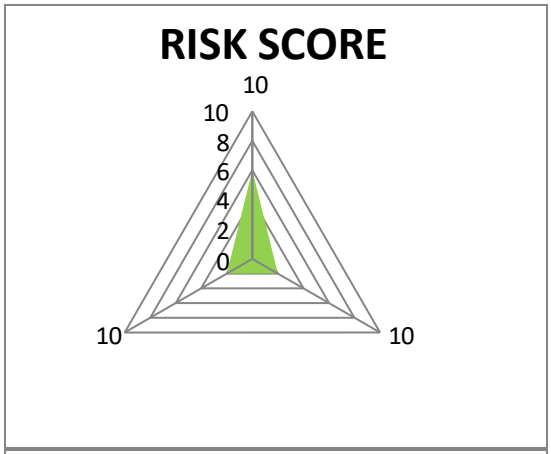
Moderate= 21-30

High= >30

Low-Risk Technical Rescue

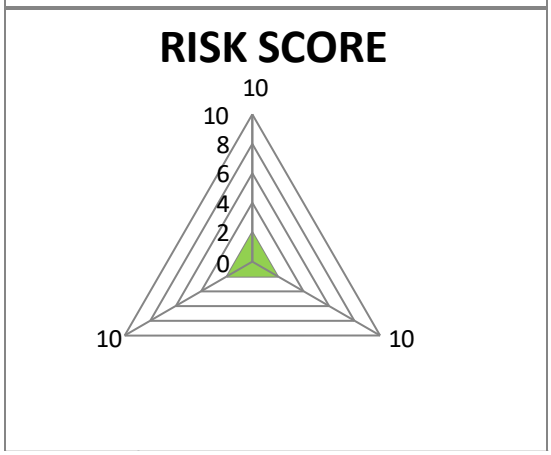
Below is an example of a response to a minor vehicle accident with no injuries. The score of 12.3 categorizes this as low-risk.

RISK- Vehicle accident no injuries	
Probability of occurrence	**6**
Consequence to community	**2**
Impact on fire department	**2**
SCORE	**12.32883**



Below is the scoring for a response to a shore-based rapid dive response for a missing person. The score of 4.9 categorizes this as a low-risk.

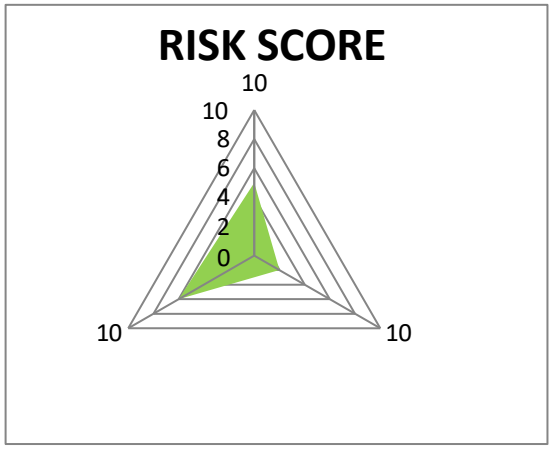
RISK-Shore-based rapid dive rescue	
Probability of occurrence	**2**
Consequence to community	**2**
Impact on fire department	**2**
SCORE	**4.898979**



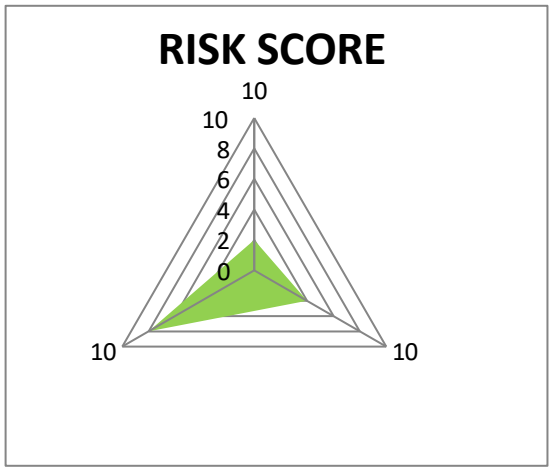
Moderate-Risk Technical Rescue

Below is an example of a vehicle accident with entrapment and/or injury. The score of 23.9 categorizes this as moderate-risk.

RISK- Vehicle accident with injury/entrapment	
Probability of occurrence	**5**
Consequence to community	**2**
Impact on fire department	**6**
SCORE	**23.91652**



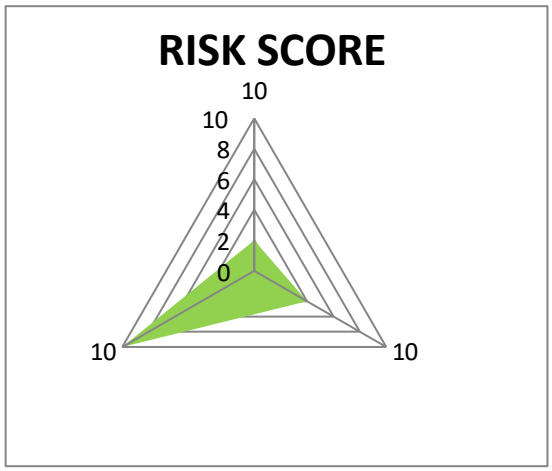
Below is an example of the score for a small building collapse with three people entrapped with injuries. The score of 25.9 categorizes this as a moderate-risk.



RISK- Building collapse w/entrapment and injury (3 patients)	
Probability of occurrence	**2**
Consequence to community	**4**
Impact on fire department	**8**
SCORE	**25.92296**

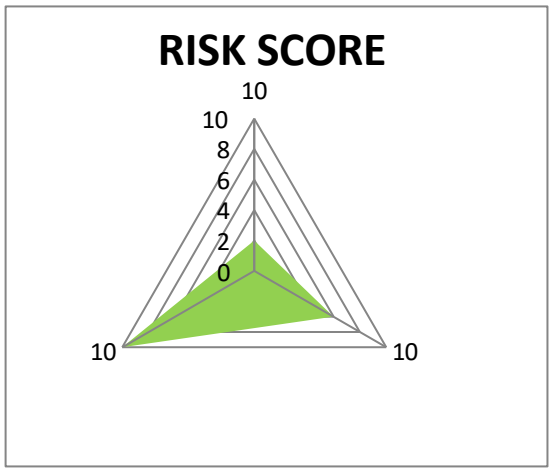
High-Risk Technical Rescue

Below is an example of a building collapse with multiple people entrapped and a complicated and extended extrication. The score of 32.1 categorizes this as high-risk.



RISK- Building collapse with entrapment-extended operations	
Probability of occurrence	**2**
Consequence to community	**4**
Impact on fire department	**10**
SCORE	**32.12476**

Below is the scoring for a vehicle accident involving a school bus and multiple injuries (5-10) and extrication. The score of 45.5 categorizes this event as high-risk.



RISK-MVA/school bus/extrication/ 5-10 people	
Probability of occurrence	**2**
Consequence to community	**6**
Impact on fire department	**10**
SCORE	**45.51923**

HazMat Risk Level Categories

Low= <21

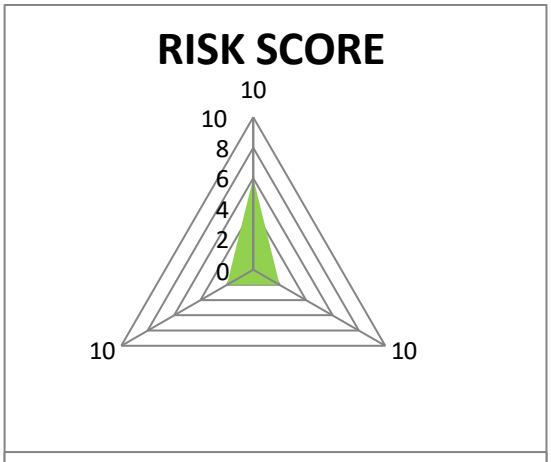
Moderate= 21-30

High= >30

Low-risk Hazardous Materials

Below is an example of a gas leak/gas odor. The score of 12.3 categorizes this call type as low-risk.

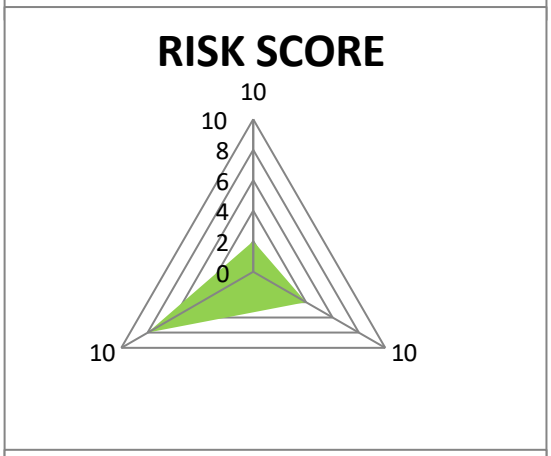
RISK-Gas leak/gas odor	
Probability of occurrence	**6**
Consequence to community	**2**
Impact on fire department	**2**
SCORE	**12.32883**



Moderate-Risk Hazardous Materials

Below is an example of a call for a small spill with multiple sick/injured persons. The score of 25.9 categorizes this as moderate risk.

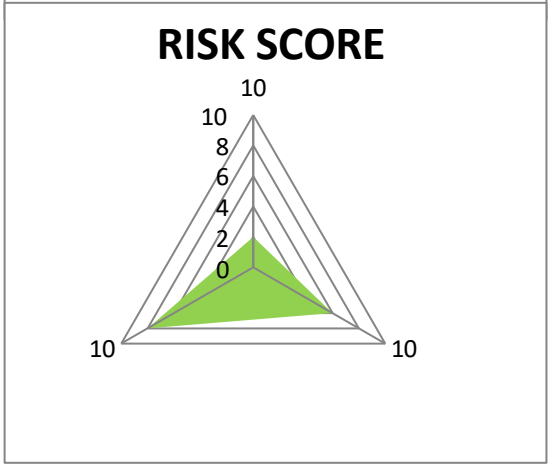
RISK- Small spill with multiple sick/injured	
Probability of occurrence	**2**
Consequence to community	**4**
Impact on fire department	**8**
SCORE	**25.92296**



High-Risk Hazardous Materials

Below is an example of a call for a suspicious package with multiple sick/injured persons. The score of 36.8 categorizes this as high-risk.

RISK- Suspicious package with sick/injured persons	
Probability of occurrence	**2**
Consequence to community	**6**
Impact on fire department	**8**
SCORE	**36.76955**



Marine Risk Level Categories

Low= <15

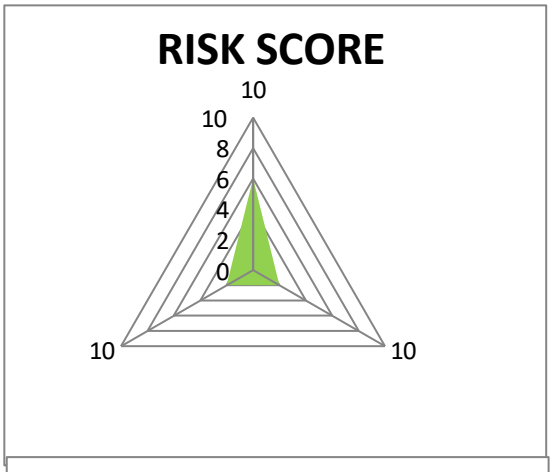
Moderate= 15-25

High= >25

Low-Risk Marine Response

Below is an example of a call for a watercraft (kayaker) in distress. The score of 12.3 categorizes this as a low-risk call.

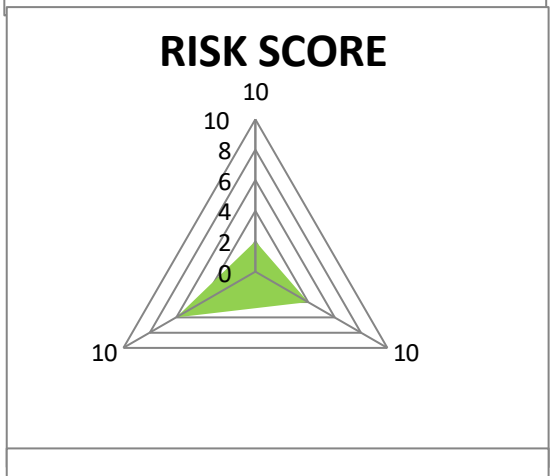
RISK- Watercraft (kayaker) in distress	
Probability of occurrence	**6**
Consequence to community	**2**
Impact on fire department	**2**
SCORE	**12.32883**



Moderate-Risk Marine Response

Below is an example of a call for a missing person (boat with three people aboard). The score of 19.8 categorizes this as a moderate-risk marine incident.

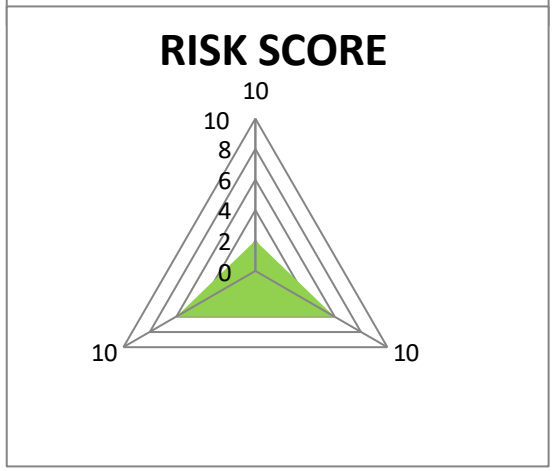
RISK-Missing boat with three aboard	
Probability of occurrence	**2**
Consequence to community	**4**
Impact on fire department	**6**
SCORE	**19.79899**



High-Risk Marine Response

Below is an example of the scoring for a boat fire that is threatening other boats or structures. The score of 28.1 categorizes this as a high-risk marine incident.

RISK-Boat fire threatening other boats/structures	
Probability of occurrence	**2**
Consequence to community	**6**
Impact on fire department	**6**
SCORE	**28.14249**



H. Historical Perspective and Summary of System Performance

Distribution Factors

Distribution pertains to the arrival of the first emergency unit, specifically the speed at which the first unit arrives. The distribution defines the geographic location of a particular resource. Resources may change locations at any point in time. Resources assigned to a particular geographic location are considered the closest resources within the first-due area under normal response situations.

Multiple factors affect the response times of emergency units, such as fire station location within a planning area, time of day, traffic, and the size of the first-due response area.

Zone 71

There are approximately 3 square miles in Zone 71, making this zone the smallest in the district. There are approximately 44.6 road miles within Zone 71.

The following graphic shows the area of Zone 71 that can generally be reached within four minutes under emergency driving conditions. The current location of Station 71 provides the ability for Engine 71 to reach all of Zone 74 within four minutes of an emergency.

Map 19: Zone 71

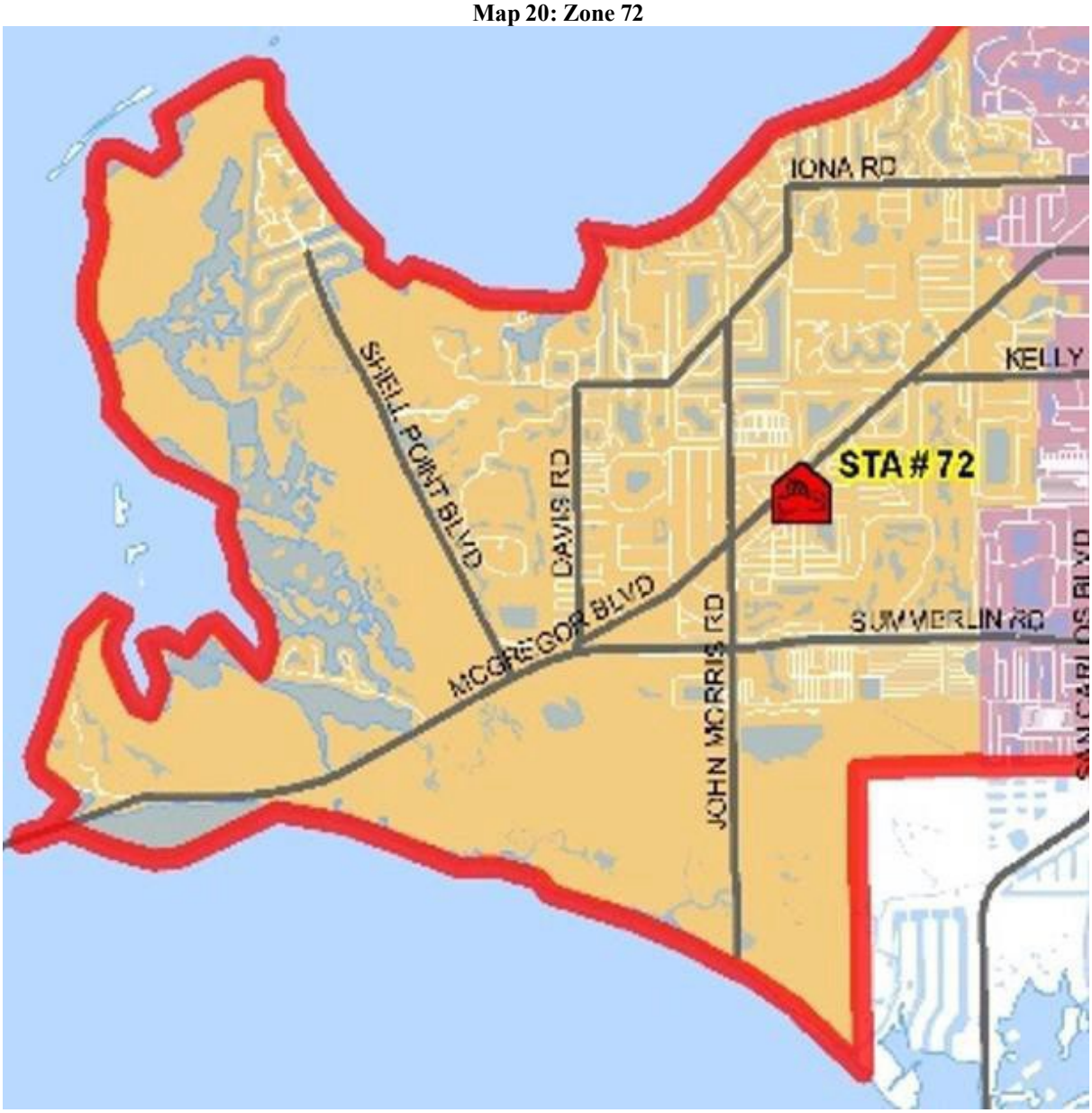
Zone 72

There are approximately 10 square miles in Zone 72 and approximately 93.9 road miles.

The following map depicts the area that can generally be reached from Station 72 within four minutes under emergency driving conditions. The current location of Station 72 provides the ability to respond to the majority of Zone 72 and into Zone 75 within four minutes of emergency driving.

*Note- "72 NEW" as seen on the map is a conceptual depiction of a potential future relocation of current Station 72.

Map 20: Zone 72



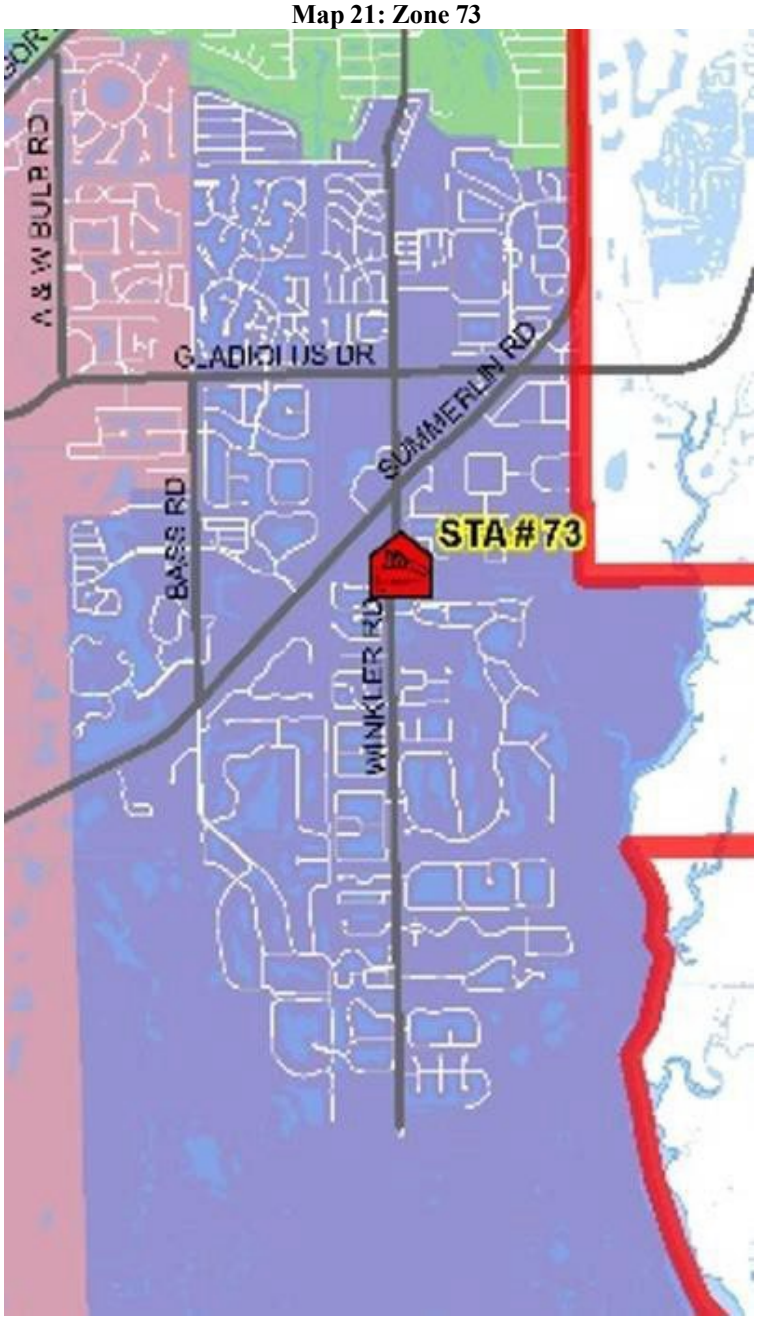
Zone 73

Zone 73 is composed of approximately 14 square miles, making this the largest zone in the district. There are 85.1 road miles in Zone 73.

The following map depicts the area that can generally be reached from Station 73 within four minutes under emergency driving conditions.

The current location of Station 73 provides the ability to reach the majority of Zone 73 and well into Zones 75 and 74 within four minutes of emergency driving.

Map 21: Zone 73

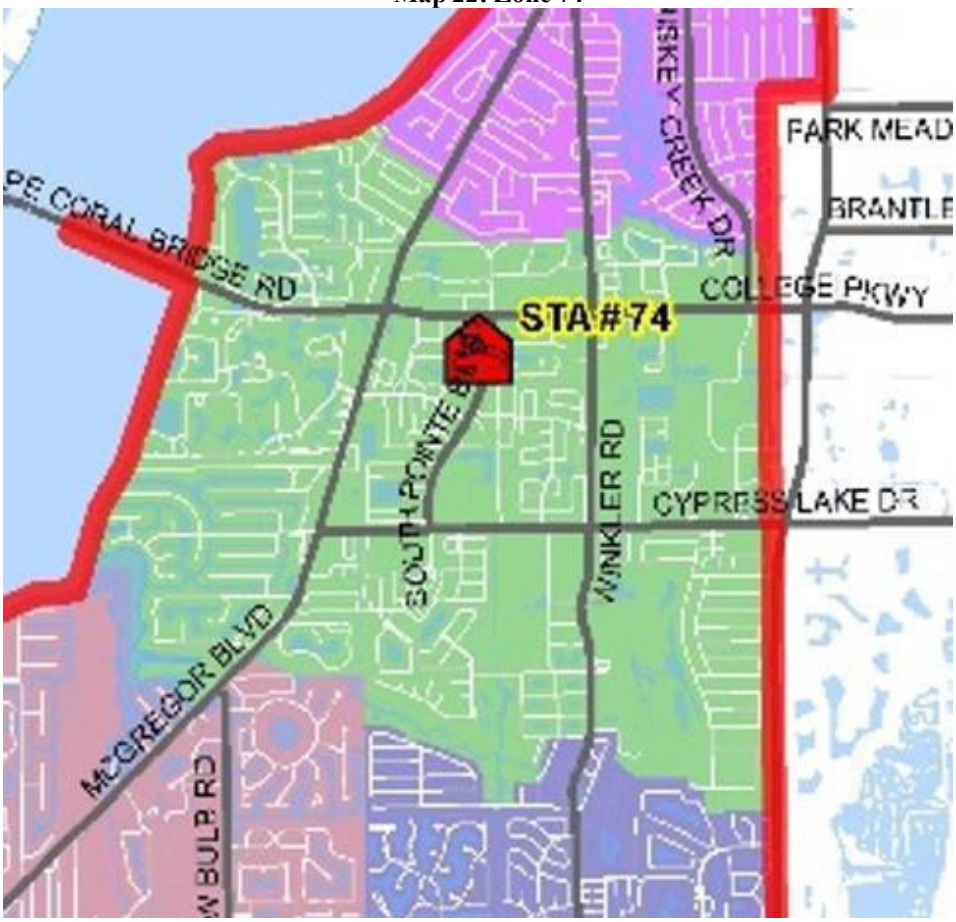


Zone 74

Zone 74 is composed of approximately 4.7 square miles and contains 75.9 road miles.

The following map depicts the area that can generally be reached from Station 74 within four minutes under emergency conditions. The current location of Station 74 provides the ability to reach the majority of Zone 74, into Zone 75, and well into Zone 71 within four minutes under emergency conditions.

Map 22: Zone 74

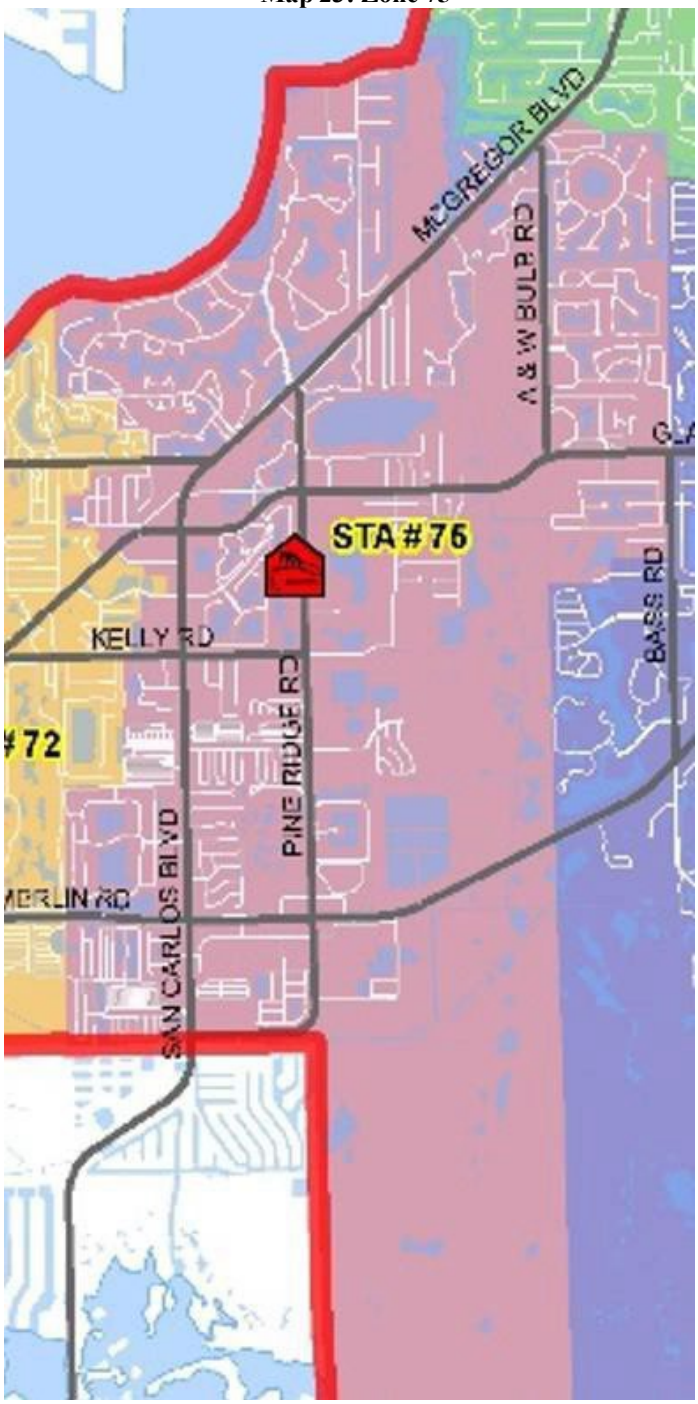


Zone 75

Zone 75 is composed of approximately 10 square miles and 97.1 road miles.

The following map depicts the area that can generally be reached when responding from Station 75 under emergency conditions. The current location of Station 75 provides the ability to reach the majority of Zone 75 and into portions of Zones 72, 73, and 74 within four minutes under emergency conditions.

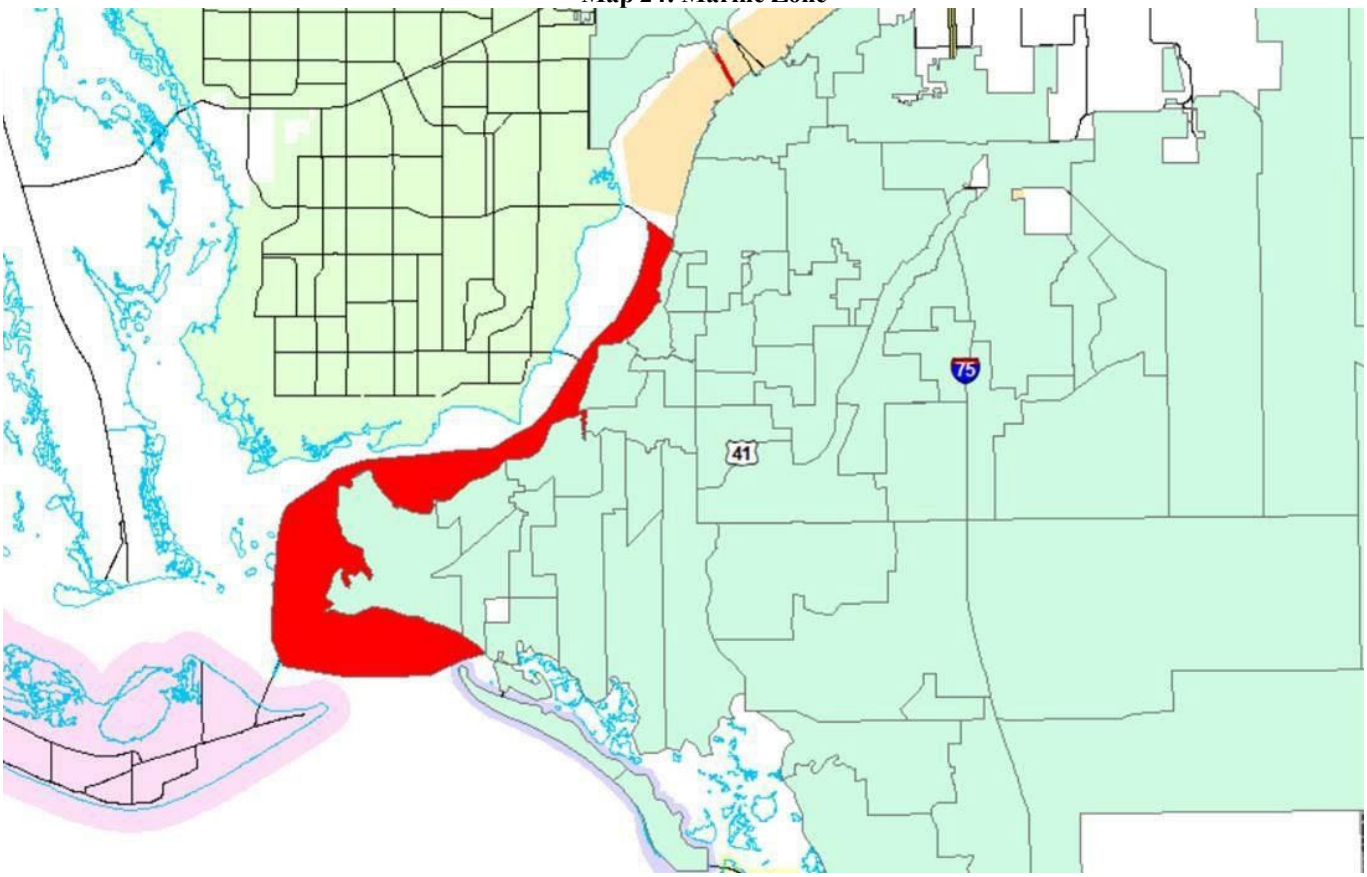
Map 23: Zone 75



Marine Zone

The marine zone runs the length of the District's shoreline and is approximately 15 miles long. The marine zone is depicted in red on map 22. The marine unit is stationed at the north end of the marine zone, which is approximately 11.5 miles from the distal point of the zone. From the marine unit location, averaging 40 mph in normal weather conditions, the travel time to the end of the marine zone would be approximately 18 minutes.

Map 24: Marine Zone



Concentration Factors

While distribution considers the arrival of the first emergency unit, concentration evaluates the ability of the district to provide enough equipment and staff in a timely manner to mitigate an emergency.

Many factors impact the ability to provide appropriate equipment and staff to mitigate an incident. The level of staffing is one concentration factor. The district maintains a maximum staffing level of 26 and a minimum of 21 for each shift (excluding the battalion chief), operating out of five stations.

Table 23: Units and Staffing by Station

Station	Unit/s	Staff
71	1 ALS engine	4 (minimum 3)
72	1 ALS engine/1 ALS rescue	6 (minimum 5)
73	1 ALS squad/1 ALS rescue	6 (minimum 5)
74	1 ALS truck/ 1 ALS rescue	6 (minimum 5)
75	1 ALS engine	4 (minimum 3)

To provide an effective response force by the quickest means possible, the district maintains a countywide automatic aid agreement which ensures the closest units are dispatched to an emergency call, regardless of location.

The district meets its requirement of having an officer assigned to each engine, squad, or truck by ensuring all personnel are qualified to work "out of classification." To work "out of classification" as an officer, personnel must go through a credentialing program and hold the same certifications that are required for the position they are working in.

The following are the numbers of incidents responded to within each response zone during the 2024 calendar year. These response numbers show the general call densities as they relate to each first-due zone. Busier stations have a higher likelihood of concurrent calls, which requires response from the next closest unit. These occasions can impact the arrival of an effective response force.

Table 24: Call Totals by Station (2025)

Zone	2025 Calls
Station 71	711
Station 72	2880
Station 73	7108
Station 74	3017
Station 75	2745

Traffic can also affect the timing of the effective response force arrival. The district experiences an influx of seasonal residents during the winter months. Traffic becomes noticeably heavier during this time.

Reliability Factors

The reliability factor gives the district the best estimate of a unit's availability to respond to an emergency incident in their designated zone from their fire station. To determine the reliability factor of a unit, the district uses the unit hour utilization (UHU). UHU is defined as the number of hours a unit is committed on calls per year. The UHU is then measured against the hours in a year to obtain the percentage of time a unit is on a call. UHU is used by many fire and emergency medical service (EMS)

organizations to determine the workload and reliability of units. The industry standard is to keep the UHU at or below 25 to 30 percent. This enables the units to be available for second out calls, employees to work on other non-emergency duties, and decreases the chances of employee burnout.

The district has identified Zones 72, 73, and 74 as their core zones. As with all zones in the district, the core zones are assigned a fire apparatus; however, these zones also have an advanced life support (ALS) rescue unit. The ALS rescue units respond "first out" to medical calls and do not have fire suppression capabilities. This enables the fire apparatus to respond to "all hazard" calls and increases the reliability factor in the core zones. Although there are two units assigned to the core zones, the district uses the UHU from the fire apparatus to determine the reliability factor. The following are variables that may contribute to the reliability factor decreasing:

- Concurrent calls
- Units out of service for training
- The need for a specialty unit to respond to a call out of zone, i.e., a heavy rescue call requiring Squad 73
- Out of zone calls requiring multiple units

The District has not developed a methodology to include when units are out of service for training, responding to calls out of zone, and concurrent calls, when determining UHU. The following tables show the UHU and reliability factor (RF) from January 1, 2021, to December 31, 2025.

Table 25: UHU 01/01/2021 to 12/31/2022

IMFD UNIT HOUR UTILIZATION 01-01-2021 To 12-31-2021			IMFD UNIT HOUR UTILIZATION 01-01-2022 To 12-31-2022		
UNIT	HOURS ON CALL/Year	% OF UHU	UNIT	HOURS ON CALL/Year	% OF UHU
E71	269.69	3.08	E71	353.76	4.04
E72	286.47	3.27	E72	309.83	3.54
R72	383.88	4.38	R72	475.84	5.43
E72/R72	670.35	7.65	E72/R72	785.67	8.97
SQ73	268.78	3.07	SQ73	378.75	4.32
R73	483.17	5.52	R73	529.77	6.05
SQ73/R73	751.95	8.58	SQ73/R73	908.52	10.37
TK74	355.70	4.06	TK74	456.55	5.21
R74	401.79	4.59	R74	466.99	5.33
TK74/R74	757.49	8.65	TK74/R74	923.55	10.54
E75	432.73	4.94	E75	556.76	6.36
B70	122.36	1.40	B70	223.78	2.55
M70	37.64	0.43	M70	65.23	0.74
Total	3,042.20	34.73	Total	3,817.27	43.58

As noted in the table above, Rescue 73 had the greatest UHU in 2021 and 2022. The two units in Zone 74 combined to have the greatest UHU in both 2020 and 2021.

Table 26: UHU 1/1/2023 to12/31/2025

IMFD UNIT HOUR UTILIZATION 01-01-2023 To 12-31-2023		
UNIT	HOURS ON CALL/Year	% OF UHU
E71	425.48	4.86
E75	399.14	4.56
R75	517.01	5.90
E75/R75	916.14	10.46
SQ73	345.83	3.95
R73	574.22	6.56
SQ73/R73	920.05	10.50
TK74	402.60	4.60
R74	567.12	6.47
TK74/R74	969.72	11.07
E72	463.91	5.30
B70	203.49	2.32
M70	61.77	0.71
Total	3,960.56	45.21

IMFD UNIT HOUR UTILIZATION 01-01-2024 To 12-31-2024		
UNIT	HOURS ON CALL/Year	% OF UHU
E71	368.45	4.21
E75	291.17	3.32
R75	419.70	4.79
E75/R75	710.87	8.11
SQ73	345.60	3.95
R73	659.85	7.53
SQ73/R73	1,005.45	11.48
TK74	355.17	4.05
R74	584.87	6.68
TK74/R74	940.03	10.73
E72	664.95	7.59
B70	17.45	0.20
M70	60.52	0.69
DV70	5.51	0.06
Total	3,773.23	43.07

IMFD UNIT HOUR UTILIZATION 01-01-2025 To 12-31-2025		
UNIT	HOURS ON CALL/Year	% OF UHU
E71	292.49	3.34
E72	387.31	4.42
R72	300.22	3.43
E72/R72	687.53	7.85
SQ73	370.20	4.23
R73	648.80	7.41
SQ73/R73	1,018.99	11.63
TK74	349.41	3.99
R74	528.10	6.03
TK74/R74	877.51	10.02
E75	568.74	6.49
B70	145.80	1.66
M70	51.66	0.59
DV70	7.60	0.09
Total	4,178.43	47.70

In 2024 the District placed Dive 70 in service. There were only 4 months of data as of this report. In 2025 Engine 75 had the highest UHU for a fire apparatus at 6.49 %..

Table 27: Reliability CY 2021

IMFD RELIABILITY FACTOR 01-01-2021 To 12-31-2021		
ZONE	UNITS	RF%
71	E71	96.92
72	E72/R72	96.73
73	SQ73/R73	96.93
74	TK74/R74	95.94
75	E75	95.06

Table 28: Reliability CY 2022

IMFD RELIABILITY FACTOR 01-01-2022 To 12-31-2022		
ZONE	UNITS	RF%
71	E71	95.96
72	E72/R72	96.46
73	SQ73/R73	95.68
74	TK74/R74	94.79
75	E75	93.64

Table 29: Reliability CY 2023

IMFD RELIABILITY FACTOR 01-01-2023 To 12-31-2023		
ZONE	UNITS	RF%
71	E71	95.14
75	E75/R75	95.44
73	SQ73/R73	96.05
74	TK74/R74	95.40
72	E72	94.70

Table 30: Reliability CY 2024

IMFD RELIABILITY FACTOR 01-01-2024 To 12-31-2024		
ZONE	UNITS	RF%
71	E71	95.79
75	E75/R75	96.68
73	SQ73/R73	96.05
74	TK74/R74	95.95
72	E72	92.41

Table 30: Reliability CY 2025

IMFD RELIABILITY FACTOR 01-01-2025 To 12-31-2025		
ZONE	UNITS	RF%
71	E71	96.66
75	E72/R72	95.58
73	SQ73/R73	95.77
74	TK74/R74	96.01
72	E75	93.51

The data above shows that the Iona McGregor Fire Protection and Rescue District (IMFD) falls well below the 25 UHU, and all zones are covered with units that have a reliability factor of greater than 92 percent.

Dataset Qualification

Parameters for data inclusion must be established to effectively monitor performance. To limit the analysis, the district excluded all outgoing mutual/automatic aid responses. Non-emergent calls also were eliminated, such as false alarms, service, and good intent calls.

Upper thresholds were established for data sets such as alarm processing, turnout, travel, and total response times by determining three standard deviations from the median of a data set. Once outlier data was removed, the 90th percentile performance was calculated. These parameters for dataset qualification were defined and adopted through policy. See policy 1.1.4 (Response Data Parameters) in Appendix A.

It should also be noted that data was initially captured via ESO documentation program and manually analyzed; and is reflected in the 2020 numerical components. Since then, NFORS program has been initiated and increased our efficiency of data collection; and is reflected thereafter. As the NFORS program has been updated and tailored to IMFD needs, the quality of data is improving.

Baseline Performance Tables

Fire Suppression

Fire- Low	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	01:47	02:45	03:08	01:01	01:06	00:57
Turnout Time 1st Unit	02:02	01:52	02:07	02:06	02:05	02:00
Travel time 1st Unit	08:13	07:17	07:37	09:00	09:00	08:10
Travel ERF						
Total Response first	10:44	10:28	11:03	10:56	11:05	10:09
Count (n)	n=4191	n=827	n=986	n=900	n=829	n=649
Total Response ERF						
ERF count (n)						

Fire-Moderate	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	01:56	03:14	03:14	01:02	01:10	01:02
Turnout Time 1st Unit	01:24	01:20	01:20	01:21	01:25	01:36
Travel time 1st Unit	06:08	06:02	05:41	06:55	06:07	05:54
Travel ERF	10:57	11:05	11:45	10:27	11:45	10:11
Total Response 1st Unit	08:27	09:32	09:07	08:22	07:53	07:22
Count (n)	n=230	n=30	n=40	n=64	n=50	n=46
Total Response ERF	13:04	13:49	15:04	12:01	13:02	11:26
ERF count (n)	n=58	n=12	n=11	n=26	n=6	n=3

Fire-High	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	01:52	02:57	03:33	00:58	01:05	00:48
Turnout Time 1st Unit	01:43	01:22	01:18	01:43	02:35	01:39
Travel time 1st Unit	06:11	05:40	06:57	05:54	07:33	04:53
Travel ERF						
Total Response 1st Unit	08:32	08:11	10:08	08:35	08:36	07:08
Count (n)	n=78	n=17	n=23	n=4	n=18	n=16
Total Response ERF						
ERF count (n)						

***Inadequate sample size for high risk ERF**

Emergency Medical Services[1]

- IMFD did not previously provide the entire ERF for EMS calls. As of 2025, LCEMS accounts for Minimum risk category ERF independent of IMFD; and accounts for ERF in conjunction with IMFD for Low, Moderate, and High-risk categories.

EMS-Minimum (NEW)	
	2025 Only
Alarm Handling	02:44
Turnout Time 1st Unit	01:59
Travel time 1st Unit	11:23
Total Response 1st Unit	13:18
Count (n)	n=5337

EMS-Low						
	2021-2025	**2025**	**2024**	**2023**	**2022**	**2021**
Alarm Handling	01:48	03:20	03:12	00:52	00:51	00:45
Turnout Time 1st Unit	01:52	01:39	01:54	01:56	01:54	01:55
Travel time 1st Unit	07:25	06:57	07:11	08:06	07:28	07:23
Travel ERF						
Total Response 1st Unit	09:57	10:26	10:40	10:03	09:25	09:10
Count (n)	n=25896	n=4622	n=4471	n=5559	n=5768	n=5476
Total Response ERF						
ERF count (n)						

EMS-Moderate						
	2021-2025	**2025**	**2024**	**2023**	**2022**	**2021**
Alarm Handling	01:25	02:34	02:33	00:43	00:42	00:33
Turnout Time 1st Unit	01:36	01:14	01:40	01:46	01:29	01:49
Travel time 1st Unit	05:41	05:50	05:22	05:33	05:40	06:00
Travel ERF		08:01				
Total Response 1st Unit	07:37	08:02	08:11	07:20	06:57	07:37
Count (n)	n=744	n=132	n=142	n=148	n=168	n=154
Total Response ERF		10:07				
ERF count (n)		n=126				

***Inadequate sample size for high risk table**

Technical Rescue

Tech Rescue-Low						
	2021-2025	**2025**	**2024**	**2023**	**2022**	**2021**
Alarm Handling	01:44	03:01	02:51	00:58	00:54	00:54
Turnout Time 1st Unit	01:48	01:35	01:44	02:05	01:47	01:47
Travel time 1st Unit	07:04	06:35	07:17	07:12	07:18	06:58
Travel ERF						
Total Response 1st Unit	09:21	09:21	10:02	09:26	09:10	08:46
Count (n)	n=2210	n=438	n=408	n=473	n=437	n=454
Total Response ERF						
ERF count (n)						

Tech Rescue-Moderate						
	2021-2025	**2025**	**2024**	**2023**	**2022**	**2021**
Alarm Handling	02:00	03:02	03:31	01:21	01:11	00:54
Turnout Time 1st Unit	01:26	01:14	01:32	01:32	01:27	01:26
Travel time 1st Unit	05:34	05:04	06:24	06:27	05:02	04:51
Travel ERF	15:15	09:54	07:39	17:37	07:39	20:01
Total Response 1st Unit	07:48	07:37	09:42	08:30	06:51	06:19
Count (n)	n=375	n=75	n=58	n=48	n=81	n=113
Total Response ERF	17:10	12:42	10:41	19:21	22:07	20:57
ERF count (n)	n=216	n=70	n=55	n=21	n=34	n=36

Tech Rescue-High						
	2021-2025	**2025**	**2024**	**2023**	**2022**	**2021**
Alarm Handling	05:13	00:00	05:42	00:36	18:38	01:10
Turnout Time 1st Unit	01:12	00:00	01:33	01:08	01:50	01:28
Travel time 1st Unit	07:55	00:00	08:02	06:09	08:19	17:05
Travel ERF						
Total Response 1st Unit	12:57	00:00	13:03	07:40	25:40	18:21
Count (n)	n=26	n=0	n=4	n=2	n=8	n=12
Total Response ERF						
ERF count (n)						

***Inadequate sample size for high risk ERF**

Marine

Marine-Low						
	2021-2025	**2025**	**2024**	**2023**	**2022**	**2021**
Alarm Handling	02:36	03:10	05:56	01:00	01:23	01:30
Turnout Time 1st Unit	03:43	02:55	02:54	05:33	04:10	03:03
Travel time 1st Unit	13:24	10:07	13:52	15:09	10:56	16:56
Travel ERF						
Total Response 1st Unit	17:25	16:12	17:00	21:33	12:12	20:07
Count (n)	n=40	n=3	n=6	n=7	n=13	n=11
Total Response ERF						
ERF count (n)						

***Inadequate sample size for moderate/high risk table**

HazMat

HazMat-Low						
	2021-2025	**2025**	**2024**	**2023**	**2022**	**2021**
Alarm Handling	02:15	03:46	03:04	01:33	01:46	01:06
Turnout Time 1st Unit	01:48	01:46	01:44	01:48	01:52	01:49
Travel time 1st Unit	07:21	07:28	06:30	07:46	05:59	09:01
Travel ERF						
Total Response 1st Unit	10:46	11:39	10:38	11:19	08:41	11:34
Count (n)	n=140	n=28	n=45	n=26	n=21	n=20
Total Response ERF						
ERF count (n)						

HazMat-Moderate						
	2021-2025	**2025**	**2024**	**2023**	**2022**	**2021**
Alarm Handling	01:50	03:23	02:40	01:04	01:12	00:51
Turnout Time 1st Unit	01:46	01:38	02:01	01:35	02:05	01:30
Travel time 1st Unit	06:32	07:05	07:04	05:04	06:55	06:34
Travel ERF						
Total Response 1st Unit	09:01	11:42	09:51	06:53	08:30	08:08
Count (n)	n=28	n=3	n=8	n=5	n=8	n=4
Total Response ERF						
ERF count (n)						

***Inadequate sample size for moderate risk ERF; or high risk table**

I. Evaluation of Service Delivery

Performance Objectives – Benchmarks

The following are response benchmarks for the total response time. The District has also established response benchmarks for each component of the total response time. See policy 1.2.10 (Response Time Benchmark Goals) in appendix B.

UPDATE (2024):
It should also be noted that data was initially captured via ESO documentation program and manually analyzed. Since then, NFORS program has been utilized and increased our efficiency of data collection. We have transitioned to calendar year data, from the initial April through March annual cycle. Current data reflects January 2020 through December 2024.

UPDATE (2025):

- Response data now includes low priority responses by Lee County EMS due to a change in late 2024.
    - The District now has the ability to capture a true call volume inclusive of EMS calls that are responded to by Lee County EMS (LCEMS); and individually acquire response data
    - The District has restructured EMS analytics with a fourth ***minimum*** risk category. The ERF EMS minimum category is two (2), and only accounts for Lee County EMS response without the District's units
    - EMS Low risk category now has an ERF of four (4), with all units being captured in data. Previously, data only reflected the District's portion of two (2)
    - EMS Moderate risk category now has an ERF of five (5), with all units being captured in data. Previously, data only reflected the District's portion of two (2)

Fire Suppression Services Program

Fire suppression response benchmarks were established utilizing NFPA 1710 standards.
For 90 percent of all fire suppression incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, shall be **6 minutes and 24 seconds**. The first due unit shall be capable of: providing 300 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing and advancing an attack line flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

For 90 percent of all moderate-risk fires, the total response time for the arrival of the effective response force (ERF), staffed with 17 firefighters and officers, shall be **10 minutes and 24 seconds**. For 90 percent of all high-risk structure fires, the total response time for the arrival of the ERF, staffed with 21 firefighters and officers, shall be **12 minutes and 34 seconds**. The ERF for moderate- and high-risk fires shall be capable of: establishing command; providing an uninterrupted water supply; advancing an attack line and a backup line for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two in-two out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities performing salvage and overhaul, and placing elevated master streams into service from aerial ladders. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

Emergency Medical Services Program

Emergency medical services response benchmarks were established utilizing NFPA 1710 standards.
For 90 percent of all emergency medical service (EMS) responses, the total response time for the arrival of the first-due unit staffed with a minimum of 2 firefighters or EMS personnel, shall be **6 minutes and 04 seconds**. The first-due unit shall be capable of: assessing scene safety and establishing command; sizing-up the situation; conducting an initial patient assessment; obtaining vitals and patient's medical history; initiating mitigation efforts within one minute of arrival; providing first responder medical aid, including automatic external defibrillation (AED); and assisting transport personnel with packaging the patient. Beginning with 2025, minimum risk response represents Lee County EMS only; and low-risk EMS will align with the benchmarks of moderate risk EMS due to changes in capture of Lee County EMS response.
For 90 percent of low and moderate EMS responses, the total response time for arrival of the ERF, staffed with 4 and 5 firefighters and EMS personnel respectively, increases to **10 minutes and 04 seconds.** For 90 percent of high risk EMS responses, the total response time for arrival of ERF, staffed with 16 firefighters and EMS personnel shall be **12 minutes and 14 seconds**
Iona McGregor Fire Protection and Rescue District (IMFD) relies upon Lee County Emergency Medical Services, a third-party provider, to complete the ERF component of its EMS program. The initial arriving fire department company has the capabilities of providing advanced life support (ALS) until the third-party provider arrives on scene. If the third-party provider unit arrives on scene first, its personnel initiate care, and the staff from the initial fire department company provide support as needed.

Technical Rescue Services Program

NFPA 1710 does not identify response benchmarks for technical rescue, however the District has adopted the fire suppression benchmarks for technical rescue response.

For 90 percent of all technical rescue incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: **6 minutes and 24 seconds**. The first-due unit shall be capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

For 90 percent of all moderate-risk technical rescue incidents, the total response time for the arrival of the ERF, staffed with 7 firefighters and officers, shall be: **10 minutes and 24 seconds**. For 90 percent of all high-risk technical rescue incidents, the total response time for the arrival of the ERF, staffed with 12 firefighters and officers, shall be: **12 minutes and 34 seconds**. The ERF shall be capable of: appointing a site safety officer; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing first responder medical support.

Hazardous Materials Services Program

NFPA 1710 does not identify response benchmarks for hazardous materials response, however the District has adopted the fire suppression benchmarks for hazardous materials response.

For 90 percent of all hazardous materials response incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, shall be **6 minutes and 24 seconds**. The first-due unit shall be capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material or explosive device; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

For 90 percent of all moderate-risk hazardous materials response incidents, the total response time for the arrival of the ERF, staffed with 7 firefighters and officers, shall be **10 minutes and 24 seconds**. For 90 percent of all high-risk hazardous materials response incidents, the total response time for the arrival of the ERF, staffed with 13 firefighters and officers, shall be **12 minutes and 34 seconds**. The ERF shall be capable of providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with department standard operating guidelines.

Marine Services Program

NFPA 1710 does not identify response benchmarks for marine response. For marine response, the following benchmarks were identified for the components of the total response time:

1. Alarm handling- 64 seconds.
2. Turnout- 10 minutes (Turnout for marine is from dispatch until the marine unit is enroute, inclusive of the travel to the boat. Approximate emergency drive time, and time for personnel to move from the engine to the boat and launch were factored into the turnout benchmark).
3. Travel- There are approximately 11.5 nautical miles from the marine units location to the distal point of the Districts marine boundary. The marine unit, averaging 40 mph could cover that distance in approximately 18 minutes. The District utilized the distal point of the marine zone, or 18 minutes as the travel time benchmark for the first due for all marine incidents. These travel benchmarks were chosen due to the wide possibilities of incident locations withing the marine boundary, along with the dynamic nature of marine incidents and various agencies responding.

For 90 percent of all marine response incidents, the total response time for the arrival of the first-due marine unit, staffed with a minimum of 2 firefighters and 1 boat pilot, shall be: **29 minutes and 4 seconds**. The first-due unit shall be capable of: establishing command, sizing up, and assessing the situation to determine the need for additional resources; communicating with other responding units and agencies; and initiating fire attack, search patterns, or rescue efforts.

For 90 percent of all moderate/high-risk marine response incidents, the total response time for the arrival of the ERF, staffed with a minimum of 10 personnel, including 5 boat pilots, shall be **34 minutes and 4 seconds.** The ERF shall be capable of establishing command, sizing up and assessing the situation to determine the need for additional resources; communicating with other responding units and agencies; initiating fire attack, search patterns, or rescue efforts, and providing technical expertise, knowledge, skills, and abilities during marine incidents.

Performance Objectives – Baselines

Fire Suppression Services Program

IMFD's baseline statements reflect actual performance from January 2021 through December 2025. IMFD relies on the use of automatic aid from neighboring fire departments to provide its ERF complement of personnel. These resources are immediately available as part of a seamless response system. IMFD's actual baseline service level performance is as follows:

> For 90 percent of all low-risk fires, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is **10 minutes and 44 seconds**.
>
> For 90 percent of all moderate-risk fires, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is **8 minutes and 27 seconds**. For 90 percent of all moderate-risk fire incidents, the total response time for the arrival of the ERF, staffed with 17 firefighters and officers, is **13 minutes and 4 seconds**.
>
> For 90 percent of all high-risk fires, the total response time for the arrival of the first due unit, staffed with a minimum of 2 firefighters and 1 officer, is **8 minutes and 32 seconds**. The first-due unit for all risk levels is capable of: providing a minimum of 300 gallons of water and 1,500 gpm pumping capacity; initiating command; requesting additional resources; establishing and advancing an attack line flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations are done in accordance with district standard operating procedures while providing for the safety of responders and the general public.

IMFD had a statistically insignificant number of high-risk fire suppression events that required an ERF. Accordingly, no baseline data is available for these responses.

Emergency Medical Services Program

The department's baseline statements reflect actual performance from January 2021 through December 2025. IMFD relies on the use of automatic aid from neighboring fire departments to provide its ERF complement of personnel. These resources are immediately available as part of a seamless response system. IMFD's actual baseline service level performance is as follows:

For 90 percent of all minimum-risk EMS responses (2025 only), the total response time for the arrival of the first- due unit, staffed with a minimum of 2 EMS personnel, is **13 minutes and 18 seconds**

For 90 percent of all low-risk EMS responses, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters, is **9 minutes and 57 seconds**.

For 90 percent of all moderate-risk EMS responses, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters, is **7 minutes and 37 seconds**. The first-due unit is capable of: assessing scene safety and establishing command; sizing-up the situation; conducting an initial patient assessment; obtaining vitals and patient's medical history; initiating mitigation efforts within one minute of arrival; providing first responder medical aid including AED; and assisting transport personnel with packaging the patient.

IMFD relies upon Lee County EMS, a third-party provider, to complete the ERF component of its EMS program. The initial arriving fire department company has the capabilities of providing ALS until the third-party provider arrives on scene. If the third-party provider unit arrives on scene first, its personnel initiate care, and the staff from the initial fire department company provide support as needed.

IMFD had a statistically insignificant number of high-risk EMS events that required an ERF. Accordingly, no baseline data is available for these responses.

Technical Rescue Services Program

IMFD's baseline statements reflect actual performance from January 2021 through December 2025. IMFD relies on the use of automatic aid and mutual aid from neighboring fire departments to provide its ERF complement of personnel. These resources are immediately available as part of a seamless response system. The district's actual baseline service level performance is as follows:

For 90 percent of low-risk all technical rescue incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is **9 minutes and 21 seconds**. The first-due unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing ALS to any victim without endangering response personnel.

For 90 percent of all moderate-risk technical rescue incidents, the total response time for the arrival of the ERF, staffed with 7 firefighters and officers, is **17 minutes and 10 seconds**. The ERF is capable of: appointing a site safety officer; establishing patient contact; staging and

apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing first responder medical support.

The district had a statistically insignificant number of high-risk technical rescue events that required an ERF. Accordingly, no baseline data is available for these responses.

Hazardous Materials Services Program

IMFD's baseline statements reflect actual performance from January 2021 through December 2025. The district relies on the use of automatic aid and mutual aid from neighboring fire departments to provide its ERF complement of personnel. These resources are immediately available as part of a seamless response system. The district's actual baseline service level performance is as follows:

For 90 percent allow-risk hazardous materials response incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is **10 minutes and 46 seconds**.

For 90 percent of all moderate-risk hazmat, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is **9 minutes and 1 seconds**. The first-due unit is capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material or explosive device; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

The district had a statistically insignificant number of moderate and high-risk hazardous material events that required an ERF. Accordingly, no baseline data is available for these responses.

Marine Program(s)

IMFD`s baseline statements reflect actual performance from January 2021 through December 2025. IMFD relies on the use of automatic aid from neighboring fire departments to provide its ERF complement of personnel. These resources are immediately available as part of a seamless response system. IMFD's actual baseline service level performance is as follows:

For 90 percent of low-risk marine incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is **17 minutes and 25 seconds**. The first-due unit is capable of: establishing command; sizing up to determine if additional response is required; requesting additional resources; and providing ALS to any victim without endangering response personnel.

IMFD had a statistically insignificant number of moderate and high-risk marine events that required an initial responding force or ERF. Accordingly, no baseline data is available for these responses.

Performance Gaps – Baseline to Benchmark Time Gap

Fire Suppression Services Program

Low-Risk Fire

The following table represents the total response time baseline to benchmark response gap for actual performance for low-risk fire suppression responses from 2021-2025

Table 31: Baseline to Benchmark Time Gap - Fire Suppression - Low Risk

2021-2025 Low Risk Fire Supression Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	10:44	6:24	**04:20**
		n= 4191		

Moderate-Risk Fire

The following table represents the total response time baseline to benchmark response gap for actual performance for moderate-risk fire suppression responses from 2021-2025.

Table 32: Baseline to Benchmark Time Gap - Fire Suppression - Moderate Risk

2021-2025 Moderate Risk Fire Suppression Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	8:27	6:24	**02:03**
		n=230		
ERF	Urban	13:04	10:24	**02:40**
		n=58		

High-Risk Fire

The following table represents the total response time baseline to benchmark response gap for actual performance for high-risk fire suppression responses from 2021-2025.

Table 33: Baseline to Benchmark Time Gap - Fire Suppression - High Risk

2021-2025 High Risk Fire Suppression Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	8:32	6:24	**02:08**
		n=78		

Emergency Medical Services Program

Minimum-Risk EMS (New)

The following table represents the total response time baseline to benchmark response gap for actual performance for low-risk EMS responses from 2021-2025.

Table 34: Baseline to Benchmark Time Gap - EMS - Minimum Risk (2025 Only)

2025 Minimum Risk EMS Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	13:18	6:04	**07:14**
		n= 5337		

Low-Risk EMS

The following table represents the total response time baseline to benchmark response gap for actual performance for low-risk EMS responses from 2021-2025.

Table 34: Baseline to Benchmark Time Gap - EMS - Low Risk

2021-2025 Low Risk EMS Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	9:57	6:04	**03:53**
		n= 25896		

Moderate-Risk EMS

The following table represents the total response time baseline to benchmark response gap for actual performance for moderate-risk EMS responses from 2021-2025.

Table 35: Baseline to Benchmark Time Gap - EMS - Moderate Risk

2021-2025 Moderate Risk EMS Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	7:37	6:04	**01:33**
		n=744		
ERF	Urban	8:19	10:04	**01:45**
		n=718		

Technical Rescue Services Program

Low-Risk Rescue

The following table represents the total response time baseline to benchmark response gap for actual performance for low risk technical rescue responses from 2021-2025.

Table 36: Baseline to Benchmark Time Gap - Rescue - Low Risk

2021-2025 Low Risk Rescue Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	9:21	6:24	**02:57**
		n= 2210		

Moderate-Risk Rescue

The following table represents the total response time baseline to benchmark response gap for actual performance for moderate-risk technical rescue responses from 2021-2025.

Table 37: Baseline to Benchmark Time Gap - Rescue - Moderate Risk

2021-2025 Moderate Risk Rescue Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	7:48	6:24	**01:24**
		n=375		
ERF	Urban	17:10	10:24	**06:46**
		n=216		

High-Risk Rescue

The following table represents the total response time baseline to benchmark response gap for actual performance for high-risk technical rescue responses from 2021-2025.

Table 37: Baseline to Benchmark Time Gap - Rescue – High Risk

2021-2025 High Risk Rescue Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	12:57	6:24	**06:33**
		n=26		

Hazardous Materials Services Program

Low-Risk HazMat

The following table represents the total response time baseline to benchmark response gap for actual performance for low-risk hazardous materials responses from 2021-2025.

Table 38: Baseline to Benchmark Time Gap - HazMat - Low Risk

2021-2025 Low Risk Hazmat Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	10:46	6:24	**04:22**
		n= 140		

Moderate-Risk HazMat

The following table represents the total response time baseline to benchmark response gap for actual performance for low-risk hazardous materials responses from 2021-2025.

Table 39: Baseline to Benchmark Time Gap - HazMat - Moderate Risk

2021-2025 Moderate Risk Hazmat Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	9:01	6:24	**02:37**
		n=28		

Low-Risk Marine

The following table represents the total response time baseline to benchmark response gap for actual performance for low-risk marine responses from 2021-2025.

Table 40: Baseline to Benchmark Time Gap - Rescue - Low Risk

2021-2025 Low Risk Marine Response Times				
1st/ERF	**Urban/Rural**	**Baseline**	**Benchmark**	**Gap**
1st Due	Urban	17:25	29:04	**11:39**
		n= 40		

Community Areas for Program Delivery and Coverage Improvement

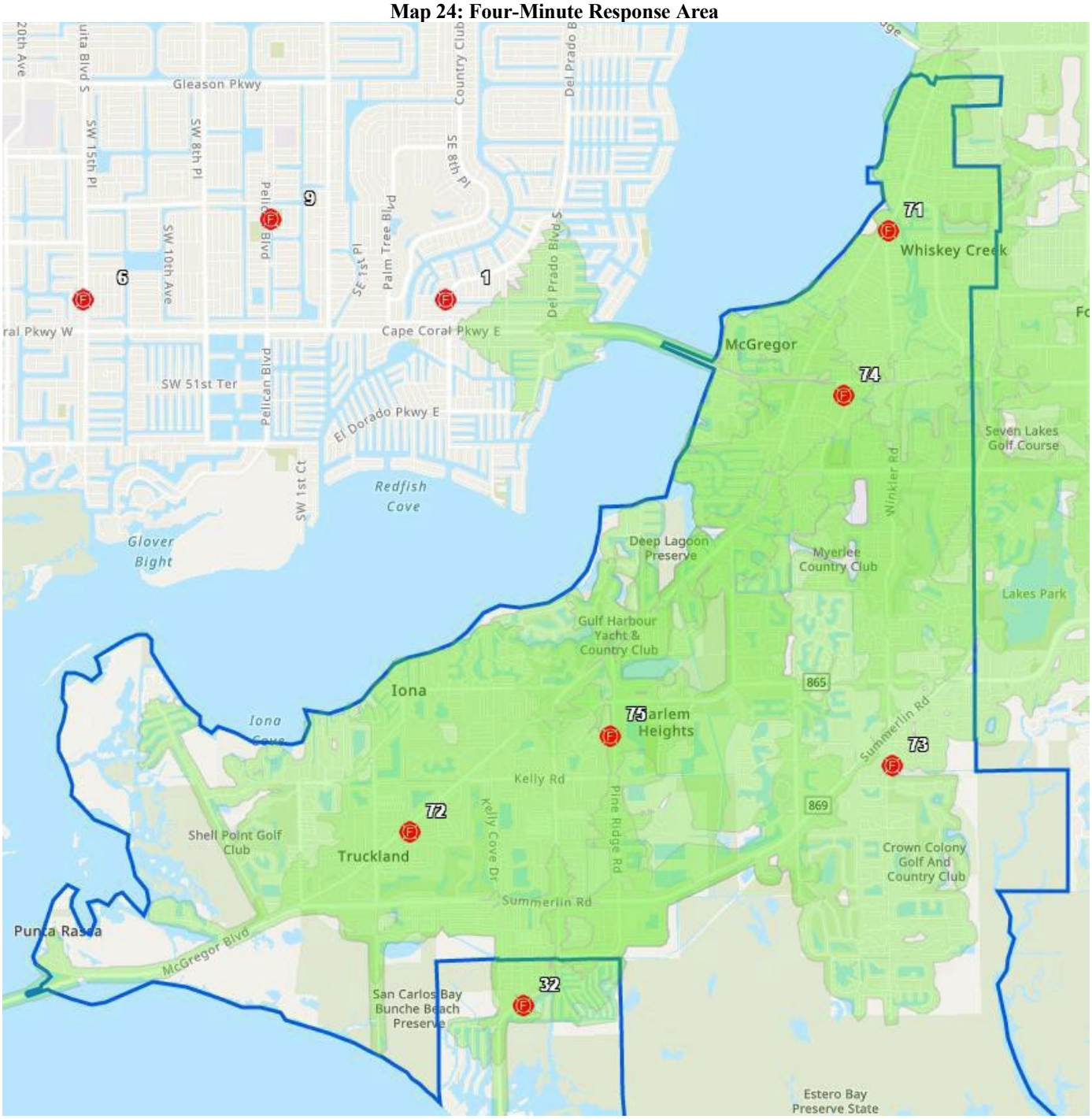
A review of historical response data assists in identifying areas needing improvement. One modifiable area of improvement is turnout times, and the District has increased regular monitoring, education, and widespread personnel awareness.

Another area improvement is in alarm handling, and the District has increased regular communications with the Lee County Emergency Dispatch Center to support this effort.

Response Coverage

Theoretical emergency response times are calculated using 10 miles per hour over posted speed limits as a rule of thumb. The following map shows the area of the district that theoretically can be reached within four minutes of emergency driving. It should be noted that while this map shows best case scenario coverage, the district's historical data shows a longer response time average at the 90th percentile.

Map 24: Four-Minute Response Area



It should be noted that an area of concern is the very end of Shell Point. This area has a longer potential response time and has higher risk structures and demographics at this location.

Map 25: Shell Point Area Outside of Four-Minute Response Area

Recommendations for Improved Effectiveness in Deployment and Coverage

Alarm Handling: The district does not provide for its dispatch but outsources this through Lee County Public Safety Dispatch. The district has very limited control over alarm handling performance, but maintains a very cooperative, working relationship with dispatch. The district will communicate performance concerns with dispatch to develop strategies for improvement.

Turnout times: The district will plan for the implementation of countdown timers in the bays of all stations. These timers will serve to provide a visual cue for responders as they are turning out. The district will also define by policy when crews are to go "en-route" to improve consistency in data.

The district has recently conducted training in basic turnout drills and provided the times for each responder. With a baseline established, future turnout performance will be continually monitored.

Geographic coverage: The district will evaluate growth trends for current and future staffing needs as well as station locations.

J. Performance Maintenance and Improvement Plans

Compliance Team / Responsibility

To ensure the district meets current service level objectives, continuous monitoring of service level baselines must be conducted regularly. The compliance team will consist of the accreditation manager, operations chief, and fire marshal.

The accreditation manager will be responsible for coordinating the efforts of the compliance team, ensuring records are maintained, and compiling quarterly and annual reports.

The operations chief will ensure accurate response data is maintained and provide reports to the accreditation manager.

The fire marshal will be responsible for monitoring and reporting on development and growth trends in the community, maintaining the district's pre-fire planning and structural risk profiling through the occupancy vulnerability assessment profile (OVAP), and provide reports to the accreditation manager.

Performance Evaluation and Compliance Strategy

The operations chief will ensure continuous monitoring of service delivery. Significant events requiring an effective response force will be evaluated as they occur to ensure accuracy in data collection and monitor expected outcomes. To assist in monitoring efforts, the district will utilize the National Fire Operating Report System (NFORS), an online dashboard based on the risk assessment methodology described in this document, to monitor operational performance on a weekly basis.

On a quarterly basis, the operations chief will develop a summary of the service level objectives, a comparison of current results to previous baseline performance, and calculations of the difference in results between time periods.

Annually, the operations chief will evaluate the response demands within each zone and the identified risks within to determine if there have been any changes within planning zones, such as changes to service demands or operations that impact the established service level objectives or the Standards of Cover document.

The fire marshal will assign pre-fire plans to operations crews on a quarterly basis. Crews will ensure plans are current and evaluate the accuracy of the OVAP information for the assigned pre-fire plan. Any recommendations for adjustments will be submitted to the fire marshal.

New construction permits and development orders go through the prevention division. On a quarterly basis, the fire marshal will review new construction and development orders to identify emerging growth trends that could impact service delivery.

Compliance Verification Reporting

The accreditation manager will work with the compliance team to compile the following reports. The accreditation manager will maintain and file all monitoring reports.

Quarterly:

Operations Chief: The summary report of service level objectives, comparing performance to benchmark performance goals, and the resulting gap analysis. This report will be shown in the format of the data tables included in this report. The operations chief will also include a narrative summary of the report, including an analysis of response performance and an explanation for inconsistencies and/or negative trends.

The accreditation manager will review the quarterly report with the operations chief to discuss gaps in performance and identify potential remedial actions for consideration.

The accreditation manager and the compliance team will meet with the fire chief to present the quarterly report.

Every 6 months:

Fire Marshal: The fire marshal will provide a written summary report of new construction and development orders and a summary report of pre-fire planning and OVAP efforts.

The accreditation manager will review this bi-annual report with the fire marshal to discuss emerging trends that could impact service delivery.

The accreditation manager will include the information from this bi-annual report in the quarterly report and meeting with the fire chief and compliance team.

Annually:

The accreditation manager will develop an annual report for submission to the Board of Commissioners after final approval from the fire chief. The annual report will be comprised of the information gathered from the quarterly and bi-annual reports developed by the compliance team described above.

Additionally, the annual report will include an assessment of performance gaps in current capabilities for the total response area, noted inconsistencies and negative trends within the service delivery system.

To aid in the collection and presentation of this annual report, the compliance team will work as a group under the direction of the accreditation manager to assemble all required information and assist in the interpretation of data and considerations for improvement towards achieving targets. The final report will be presented for final approval to the fire chief.

Constant Improvement Strategy

The district utilized NFPA 1710 to determine response goals as explained in section I, “Evaluation of Service Delivery”.

Performance will be monitored through the methods described above and compared to the benchmarks identified. Through the performance evaluation and compliance meetings, strategies for improvement will be identified and implemented.

The components of the Standards of Cover will be included as part of the strategic planning process. Performance measurements in the Standards of Cover will be reported to the Board of Commissioners annually and necessary components included in the annual budgeting process to work towards continual improvement.

K. Appendices

Appendix A: Response Data Parameters

Iona-McGregor Fire District
Standard Operating Guideline

1.1.4

Title: **Response Data Parameters**

Purpose:

To define threshold values based on a consistently applied methodology to yield data sets with performance indicators within established parameters for primary data analysis. Values above the established threshold will be exclude from the data set for each response type. Data that falls outside of these parameters will be reviewed quarterly for actionable causation.

Scope:

Aggregate data sets, for each service type including Fire, EMS, Technical Rescue, Hazardous Materials, and Marine, were compiled utilizing the "reports" feature of our Report Management System (RMS). These data set were further reduced by risk class within each service delivery type. An analysis was performed on each incident type data set to determine the lower and upper values of the primary data set. Microsoft excel STDEV.P function was utilized to calculate the standard deviation based on the entire population given as arguments. The standard deviation is a measure of how widely values are dispersed from the mean value. Three (3) standard deviations were applied to determine the upper threshold values for each data set. In addition, the following response types were excluded.

1.) Automatic and Mutual aid given
2.) Non-emergency response
3.) Cancelled response
4.) False Alarm Response

The 90th percentile of the applicable data set was determined utilizing Microsoft Excel's percentile formula to produce a linear interpolation. Specifically, *Percentile.inc* was used to calculate a rank order using the following formula: k* (N-1)+1 where k= the percentile to be calculated and N= the count of the values.

According to Tyler Buffington, NFORS, Data Scientist:

“NFORS relies on a very large data warehouse, which makes it so that conventional approaches to calculating percentiles are infeasible. As a result, it leverages a fast and accurate approximation known as the TDigest algorithm. This algorithm is relatively complicated, but it relies on partitioning the data into ordered "clusters" to avoid the need to sort an entire dataset in a single computer's memory, which does not scale well in large databases. “

Additional details are within the following links:

https://github.com/tdunning/t-digest/blob/main/docs/t-digest-paper/histo.pdf

https://www.elastic.co/guide/en/elasticsearch/reference/current/search-aggregations-metrics-percentile-aggregation.html

Appendix B: Response Time Benchmark Goals

Iona-McGregor Fire District
Standard Operating Guideline

1.2.10

Title: **Response Time Benchmark Goals**

1.0 Purpose:
The purpose of this document is to establish response time performance objectives. The District intends to work towards complying with NFPA 1710 standards that set forth comprehensive minimum criteria to ensure safe and effective fire and emergency medical response.

2.0 Scope:
These performance objectives apply to Operational personnel and all EMS and Fire related call types.

3.0 Definitions:

Alarm Handling: The time interval from receipt of call by call center to units being dispatched for response.

Turnout Time: The time interval that begins when the unit is dispatched and ends at the beginning point of travel time.

Travel Time: The time interval that begins when a unit is enroute to the emergency incident and ends when the unit arrives at the scene.

Total Response Time: The time interval from alarm handling to when the units are on scene.

3.1 Categories and Benchmarks

- Fire Suppression Program
- Emergency Medical Services (EMS) Program
- Technical Rescue Program
- Hazardous Materials (Hazmat) Program
- Marine and Shipboard Rescue and Firefighting Program

Benchmarks	Fire Suppression	EMS	Rescue	Hazmat	Marine
Alarm Handling	1:04	1:04	1:04	1:04	1:04
Turnout Time	1:20	1:00	1:20	1:20	10:00
Travel Time 1st Unit (and Minimum/Low Risk)	4:00	4:00	4:00	4:00	18:00
Travel Time ERF Moderate Risk (and Low Risk EMS)	8:00	8:00	8:00	8:00	18:00
Travel Time ERF High Risk	10:10	10:10	10:10	10:10	23:00
Total Response Time 1st Unit (and Minimum/Low Risk)	6:24	6:04	6:24	6:24	29:04
Total Response Time ERF Moderate Risk (and Low Risk EMS)	10:24	10:04	10:24	10:24	34:04
Total Response Time ERF High Risk	12:34	12:14	12:34	12:34	34:04