

SMYRNA FIRE DEPARTMENT



Community Risk Assessment: Standards of Cover 2024



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Acknowledgments

Smyrna Fire Department

Dynamix Consulting Group would like to thank the elected and appointed officials of the City of Smyrna, the Smyrna Fire Department, the members of the City of Smyrna Community, and specifically, Chief Brian Marcos and Deputy Chief Dustin Davey, for their assistance with this project. The Smyrna Fire Department Community Risk Assessment: Standards of Cover was only possible with their cooperation and support.

Dynamix Consulting Group

The Dynamix Consulting Group Project Team for the Smyrna Fire Department Community Risk Assessment: Standards of Cover Evaluation was:

Mary-Ellen Harper
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Introduction

The Smyrna Fire Department contracted with Dynamix Consulting Group to develop a Community Risk Assessment: Standards of Cover (CRA: SOC) on December 5, 2022. This project intends to produce a CRA: SOC document that is based on industry best practices, including recognized National Fire Protection Association (NFPA) standards; the methodology described in the “Community Risk Assessment: Standards of Cover, 6th Edition,” published by the Center for Public Safety Excellence (CPSE); and any federal and state mandates relative to emergency services.

By design, the CRA: SOC assesses the fire department and its current capabilities at the time of this report. The project takes a “snapshot in time” of the Smyrna Fire Department and its response area and thoroughly reviews the configuration, programs, service delivery, and response performance. It compares the conditions to national standards, best practices, and the consultants’ experience.

The benefits of the CRA: SOC process are threefold:

1. The revelation of any gaps in the current risk assessment.
2. The establishment of response benchmarks for the identified risks.
3. The alignment of internal and external communication with risk and response to develop a consistent way to communicate about community risk and how the fire department plans, trains, and responds to mitigate those risks.

Accreditation

The Smyrna Fire Department has commendably decided to work toward becoming an accredited fire department. Accredited agencies are often described as community- focused, data-driven, outcome-focused, strategic-minded, well-organized, adequately equipped, and properly staffed and trained. According to the Commission on Fire Accreditation International (CFAI), working towards, achieving, and maintaining accreditation:

- Provides greater community alignment.
- Encourages quality improvement.
- Facilitates input from and builds positive relationships between labor and management.
- Identifies areas of strengths and weaknesses.
- Allows for the establishment of an improvement plan.
- Provides data-supported decision-making.
- Communicates management and leadership philosophies.
- Ensures your agency has a defined mission and related objectives.
- Encourages the development of organizational procedural documents.

Evaluation Process

Using organizational, operational, staffing, and geographic information system (GIS) models, this evaluation provides a comprehensive appraisal of the fire and emergency medical services provided to the City of Smyrna, Georgia, as found upon Dynamix Consulting Group's completion of fieldwork and data collection in June 2023

Dynamix Consulting Group based this evaluation on data provided by the City of Smyrna and data collected during the consultants' fieldwork. The information was then compared to a combination of Georgia Laws, Insurance Services Office requirements, National Fire Protection Association Standards, accepted best practices within the emergency services community, and the experience of the Dynamix Consulting Group Consultants.

Stakeholder Input

Dynamix Consulting Group conducted more than two dozen virtual and in-person interviews, meetings, and facility tours to gather information from key stakeholders to provide context for the recommendations identified within this study. Additionally, all community members and fire department personnel were invited to participate in anonymous online surveys to provide their opinions. These interviews and surveys aimed to understand the current issues, concerns, and views related to the delivery of fire and emergency medical services within the City of Smyrna.

Next Steps

The CRA: SOC is one of four foundational elements of fire department planning. These four planning elements are:

1. CRA: SOC
 - Identifies the current performance of the fire department.
 - Identifies the risks within the community.
 - Establishes response benchmarks for the identified risks.
2. Strategic Plan
 - A three-to-five-year work plan intended to guide the work effort of the entire organization toward a standard set of goals and objectives.
 - Prioritizes the Goals and Objectives recommended in the Community Risk Assessment: Standards of Cover and the Master Plan.



3. Budget

- To the best extent possible, the budget should align with the elements of the Strategic Plan.
- Leaders must allocate funding for the Strategic Plan elements to keep funding from being the roadblock to successful implementation.

4. Master Plan

- A 10-15 Year Plan for the organization.
- Evaluates all aspects of the fire department beyond the Standard of Cover, including personnel management, training, apparatus, and facilities.
- A comprehensive evaluation of where the organization is now, where it needs to be, and how to get there.

Service delivery and deployment changes should be subject to modification based on the assessment of risk and evaluation of performance, available resources, and funding. Administrators should document and expand upon these recommended changes within the Strategic Plan, budget, and Master Plan.

Following the completion of the CRA: SOC, Dynamix Consulting Group recommends that the Smyrna Fire Department consider facilitating a Strategic Plan to prioritize the work plan in the future based on the findings of this CRA: SOC. The budget should then align with the priorities identified in the Strategic Plan. The Smyrna Fire Department will then be well-positioned to commence the Master Planning Process to develop a 10–15-year plan for providing fire and rescue services.

Description of the City of Smyrna

Smyrna, Georgia

Located just a mile northwest of the Atlanta city limits, Smyrna is a city in the Atlanta metropolitan area. The downtown area is approximately 16 miles away from the city center of Atlanta. Smyrna is situated just west of the intersection of I-285 and I-75. Vinings borders the City to the east, Marietta to the north and west, and Mableton to the south and southwest. Additionally, the city center is within a 10-mile radius of Sandy Springs and Buckhead, both of which are affluent neighborhoods in Atlanta. Smyrna's official symbol is the jonquil, a flower abundant in gardens and along the streets during the early spring season, hence the City's nickname, the "Jonquil City."

Community and Department Legal Basis

Smyrna operates under a Mayor and Council form of government. A seven-member Council governs the City of Smyrna, each representing 1 of 7 wards and a mayor elected at large. The Mayor and Council members are elected for four-year terms, and the governing body appoints a City Administrator to serve as the Chief Administrative Officer of the City of Smyrna.

The incorporated City of Smyrna receives authority under the City of Smyrna Code of Ordinances article I, section 2- Incorporation; it states that corporate powers generally, *"the Mayor and Council of the City of Smyrna, shall enact through and by the Mayor and Council of said City of Smyrna such ordinances, rules, regulations, and resolutions for the welfare and proper government of said city and for the transaction of business of said city as such Mayor and Council of said city may deem good and proper, consistent with the constitution and laws of the State of Georgia and of the United States."*

In division I, section 57. (a) (7) of the Code of Ordinances, *"the Mayor and Council are authorized and empowered to enact any rule, ordinance, or regulation,"* including *"to organize and equip a fire department either paid or volunteer, and to adopt such rules and regulations as will best promote said department."*

History of the Community

Smyrna, Georgia, was settled by pioneers in the early 1800s and underwent several name changes before finally being recognized as Smyrna in 1872. The area was once equally divided between the State of Georgia and the Cherokee Indians. However, a settlement was reached in 1831 that deeded all the land to the State of Georgia.

Shortly after, settlers began drifting into this area, and a campground was permanently established in 1832 where members of all denominations could worship. This religious encampment drew its name from the Biblical City of Smyrna and soon became the center of the social and spiritual life of the surrounding area. From this campground, the Methodist Church was organized in 1838.

The railroad significantly influenced Smyrna's development, starting in 1836. By completion in 1842, the railroad had started Smyrna on its change from a frontier village to a growing community. Smyrna's first brick building was erected in 1850 and was initially built as a boys' academy.

The region was not without its share of strife during the Civil War, with two battles waged in its vicinity and the City's businesses, homes, and covered bridge being destroyed by Sherman's troops.

The City was incorporated in 1872, and the first city election was held in 1873. Smyrna had the first female mayor elected in the State of Georgia, Lorena Pruitt, in 1946.

Following World War II, population and commercial development were mainly due to the Bell Bomber plant, located near Smyrna, playing a critical role in catalyzing the City's population expansion by building B-29. Furthermore, the plant was reopened as a Lockheed facility in 1951 and continues to operate today.

Financial Basis

Budgets and Finance

Securing a dependable and steady funding source is critical for any public or private business. In the case of public safety agencies, such as fire departments, funding availability is primarily contingent upon assessing and collecting various forms of taxation, including sales taxes, ad valorem taxes, and special assessments. However, the types and levels of revenue that the authority in charge can assess may limit the resources available to these agencies. Furthermore, public agencies may also collect fees for their services under contractual arrangements or interlocal agreements with entities beyond their political boundaries. An example of this type of funding is Cobb County's Special Purpose Local Option Sales Tax (SPLOST). In the case of the Smyrna Fire Department, this funding is primarily used for capital purchases. Doing so allows the department to transition items from the Capital Improvement Purchases (CIP) budget which saves the city and Smyrna taxpayers from wholly funding these items. Examples include building or renovating fire stations, fire apparatus purchases, or other significant capital needs of the department. In 2022, Cobb County voters approved a 1% SPLOST tax to be collected through 2027. A total of \$2.3 million was allocated to fund several public safety projects aimed at enhancing service delivery.

As a political subdivision of the State of Georgia, the City of Smyrna manages its operations using various funds, including a General Fund that supports its significant operations and other fund types that cater to specific services and objectives. The Smyrna Fire Department primarily relies on the City's General Fund, permit fees, and inspection fees to finance its operations.

As of March 2014, the City has maintained a AAA bond rating, the highest rating possible, with Standard and Poor's since March 2014. This rating reflects Smyrna's strong and continually expanding economy, which benefits from its proximity to and participation in the Atlanta metropolitan area. In addition, the rating reflects strong management, with good financial policies and practices under the Financial Management Assessment (FMA) methodology, strong budgetary performance, operating surpluses, and strong budgetary flexibility and institutional framework scores.

Fire Department Schedule of Fees and Charges	
Permits	
Anhydrous Ammonia storage permit in bulk	\$100 One-time fee for sale or
Manufacture of explosives other than fireworks	\$100 Annual license
Manufacture, storage, or transport of fireworks	\$1,000 Annual license
Carnival License	\$100
Certificate of Occupancy	\$100
Special Event Permit	\$100
New self-service gasoline station permit	\$100 One-time fee
Firework Sales (Buildings)	\$100
Consumer Firework Retail Sales Stand	\$500
Firework Special Use Permit	\$100
Blast Permit	\$25 per week
Purchase, Storage, Sale, Transport, or Use of Explosives Other Than Fireworks:	
500 pounds or less	\$50
More than 500 pounds	\$100
Liquefied Petroleum Gas Storage License:	
2,000 gallons or less	\$100
More than 2,000 gallons	\$500
Fire Marshall Construction Plan Review:	
Site Plans	\$150 for the first acre or less•
Site Plans	• add \$10 for each additional
Building construction, for 10,000 square feet (SQ. ft.) or less	\$200
Building construction for structures/spaces over 10,000 sq feet	\$0.020 per square foot (total sq. ft. x \$0.020)
Bulk Storage Construction	\$100
Other construction	\$100
Plan Review Expedite Fee (in addition to normal fee)	\$1,000 per project
Fire System Plan Review:	
Fire Sprinkler Plan Review- NFPA 13	\$150 per riser (\$50 per each
Fire Sprinkler Plan Review - NFPA 13R Modified	\$125 per riser (\$50 per each
Fire Sprinkler Plan Review - NFPA 13R	\$125 per riser (\$50 per each
Fire Sprinkler Plan Review - NFPA 13D	\$100 per riser
Special Agent Fire Extinguishing System	\$200 per system
Fire Alarm Plan	\$200
Commercial Cooking Hood/Grease Duct	\$200 per hood
Commercial Cooking Hood Suppression System	\$200 per system
IFC 510 Emergency Responder Radio System	\$200 (per radio system and/or
Building Construction Inspection:	
Initial 50% (wall cover), 80% (ceiling cover) & 100% (Final)	None
First re-inspection	\$150
Second re-inspection	\$200
Third and each subsequent re-inspection	\$250
Expedited Inspection Fee (any inspection, subject to staff availability)	\$500 (in addition to the base inspection fee, if applicable)
Existing Building & Commercial Tenant inspection:	
Annual inspection & first re-inspection	None
Second re-inspection	\$150
Third re-inspection and each subsequent re-inspection	\$200

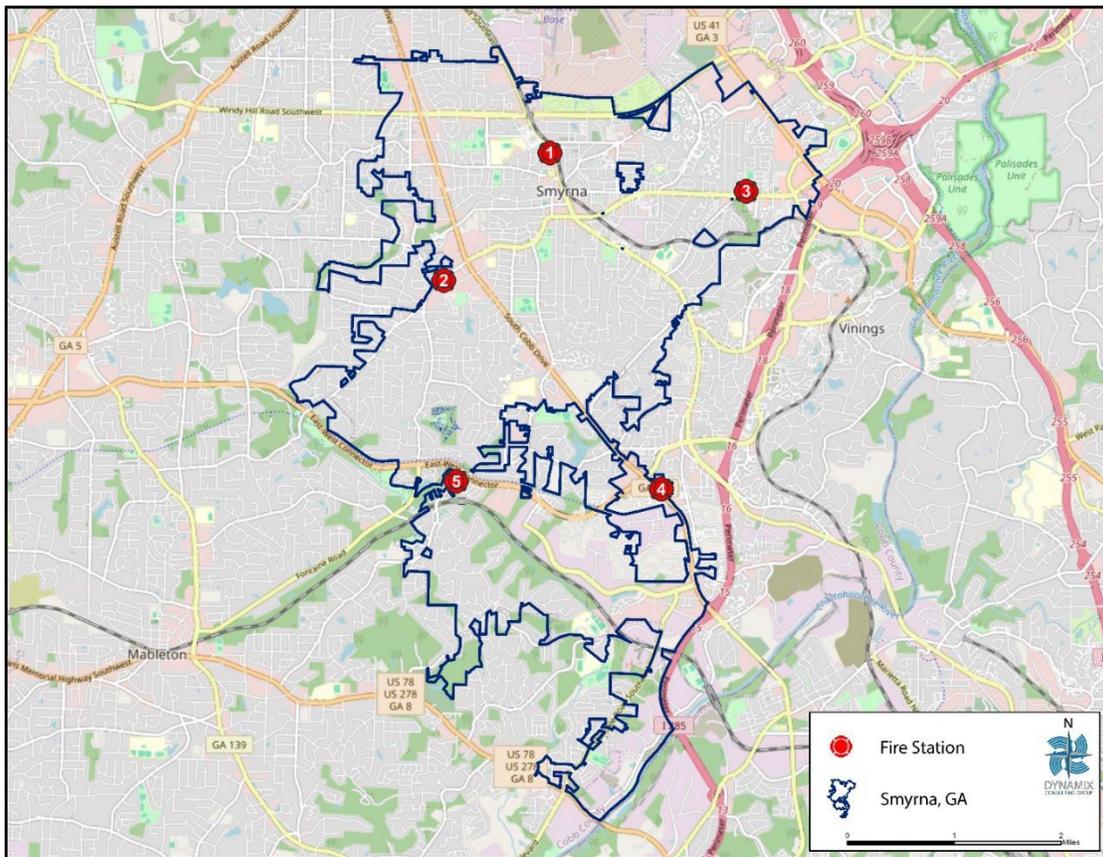
The department's Administrative Division, led by the Deputy Chief of Administrative Services, provides the Fire Chief with the financial expertise and understanding of the City budget and finance practices necessary to collaborate effectively with the City's Budget and Finance Directors and Internal and External Auditors.

The City of Smyrna uses the modified accrual method of accounting to recognize revenues and expenditures, allowing the recognition of revenues at the moment their amount can be established. The Fire Chief prepares the department's annual budget and submits it to the City Administrator for discussion and preliminary approval. The budget is then reviewed via a series of public workshops and hearings, and the City Council reviews, revises, and adopts it, considering its impact on the remaining City departments.

Boundaries

Smyrna, a city situated approximately 10 miles northwest of Atlanta in Cobb County, boasts a population of over 55,000 residents and has experienced rapid growth in recent years. This bustling metropolis earned the 44th spot on Money Magazine’s “The Best Places to Live in America” survey in 2018, thanks to its affordability, high quality of life, and thriving economy. Spanning over 16 square miles, Smyrna is a dynamic locale featuring a varied blend of residential, commercial, and industrial areas, with the most prominent residential zones. This vibrant City is home to approximately 25,000 households of diverse sizes and ages.

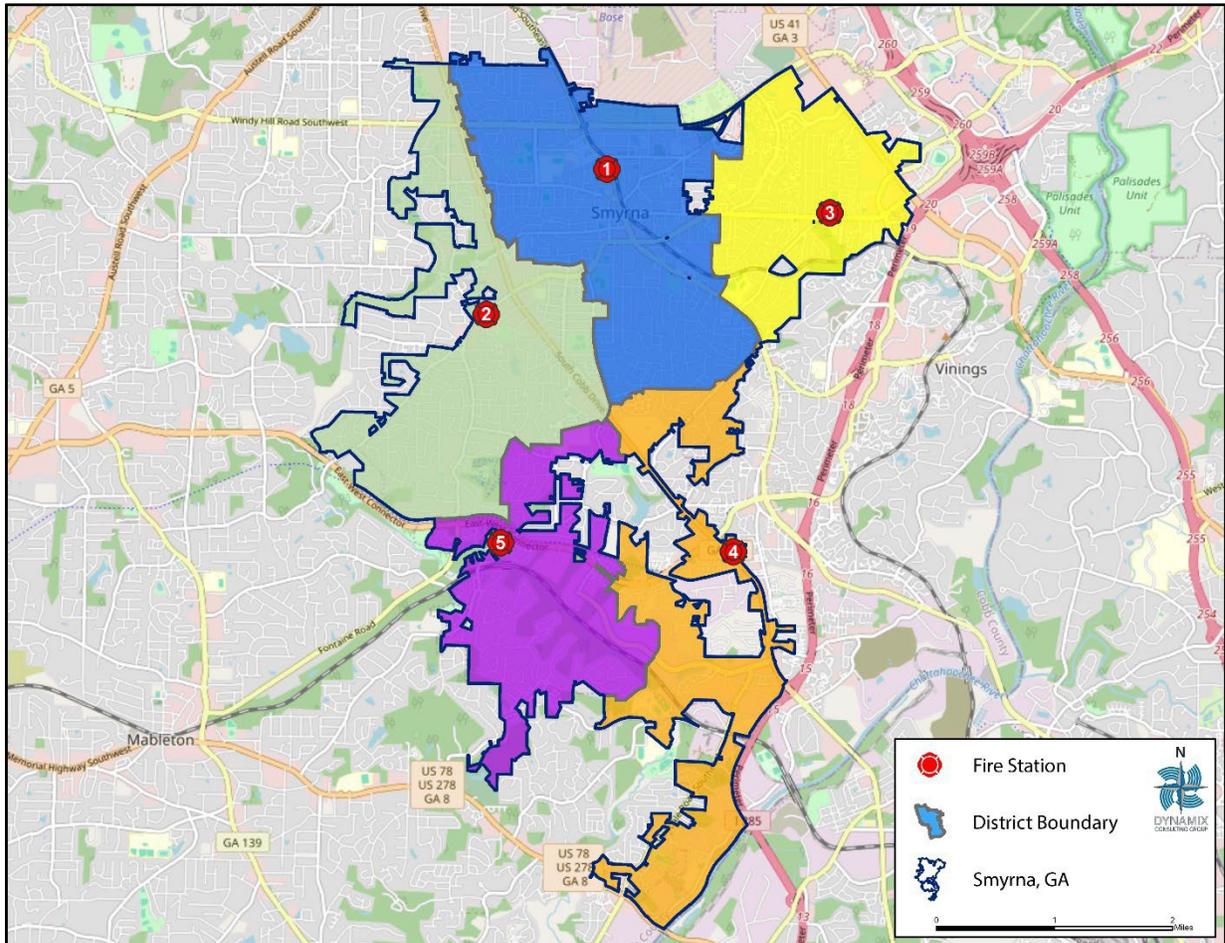
City of Smyrna



Planning Areas

The City of Smyrna has approximately 154.4 miles of roadways, with Interstate 75 and 285 near its eastern border. The City is divided into planning areas based on fire station first due coverage zones. For evaluation purposes, risk maps are also presented by Wards. By subdividing the City into smaller areas, a more detailed approach may be used to examine risk and determine if fire stations are appropriately staffed and equipped for the given hazards within their service areas.

Planning Areas by Fire Station First Due



Transportation Systems

Roads

The Smyrna service area includes U.S. Highway 41 and State Highway 280. The Cobb Community Transit bus system operates public transportation with routes to the Metropolitan Atlanta Rapid Transit Authority (MARTA) rail network. Additionally, two significant railways service Smyrna, allowing access to several locations throughout Cobb County.

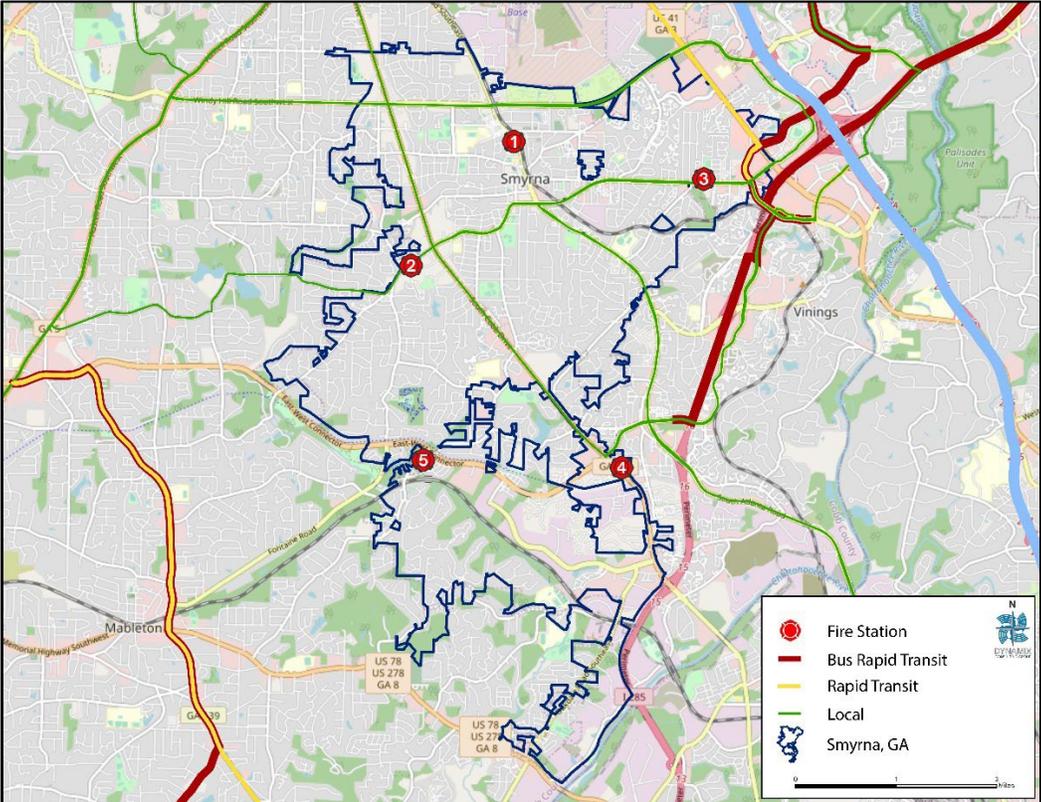
Rapid Transit

Whether local or regional, rapid transit can improve access to jobs, education, and healthcare for people who may not have access to a car or cannot afford to operate one, rapid transit can also improve mobility for seniors, people with disabilities, and low-income families. By providing efficient and reliable transportation options, the City of Smyrna can reduce traffic congestion on local roads, reduce travel times, have fewer car accidents, and improve air quality.

Rapid transit routes in Smyrna are subject to impact from significant emergencies such as natural disasters, terrorist attacks, or pandemics. Rapid transit routes and systems have historically faced issues such as the shutting down of transit due to infrastructure damage or safety concerns due to damage. This shutdown, even when temporary, can slow down the evacuation of people and the movement of essential workers such as firefighters. Additionally, communication breakdowns can occur, making it difficult, if possible, for transit operators and first responders to communicate and coordinate an effective response.

To address rapid transit emergencies and the integration of first responders during an incident, emergency plans must be in place that outline procedures for managing emergencies from a unified command location. These plans should include provisions for ensuring the safety of transit workers, passengers, and first responders. Lastly, regular training and drills can help the City of Smyrna ensure that transit workers and city employees are prepared to respond effectively during emergencies.

Rapid Transit



Critical Infrastructure

The Federal Emergency Management Agency defines target hazards as “facilities in either the public or private sector that provide essential products and services to the general public and are otherwise necessary to preserve the welfare and quality of life in the community, or fulfill important public safety, emergency response, and disaster recovery functions.” The NFPA further breaks down target hazards into three risk categories for occupancies.

- **High-Risk Occupancy:** An occupancy that has a history of a high frequency of fires, high potential for loss of life or economic loss, or that has a low or moderate history of fires or loss of life, but the occupants have a high dependency on the built-in fire protection features or staff to assist in an evacuation during a fire or other emergency.
- **Moderate-Risk Occupancy:** An occupancy with a history of a moderate frequency of fires or reasonable potential for the loss of life or economic loss.
- **Low-Risk Occupancy:** An occupancy with a history of a low frequency of fires and a minimal potential for life or economic loss.

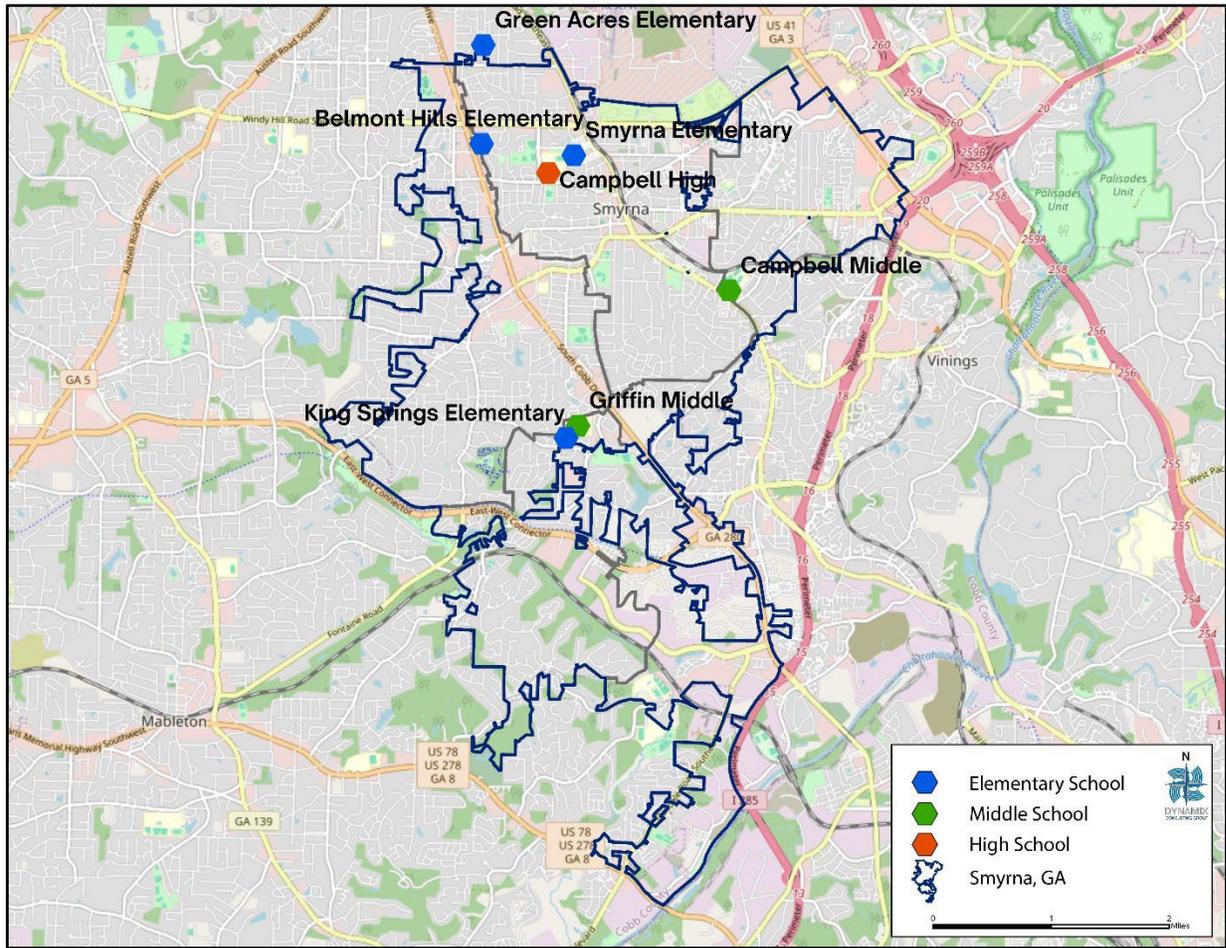
Examples of target hazards can include the following:

- Schools
- Hospitals
- Healthcare Facilities
- Historic Buildings
- Major Community Events
- Transportation System
- Utilities
- Large Buildings

Schools

Smyrna has one public high school, two middle schools, and four elementary schools. The high school, Campbell High School, serves 2,669 students. Campbell High School has an average math proficiency score of 20% versus Georgia public schools’ average of 24% and a reading proficiency score of 16% vs. the state average of 32%. Campbell High School’s graduation rate is approximately 93% as of 2023. Free and reduced lunch is available for 55.3% of the enrolled students at Campbell High School.

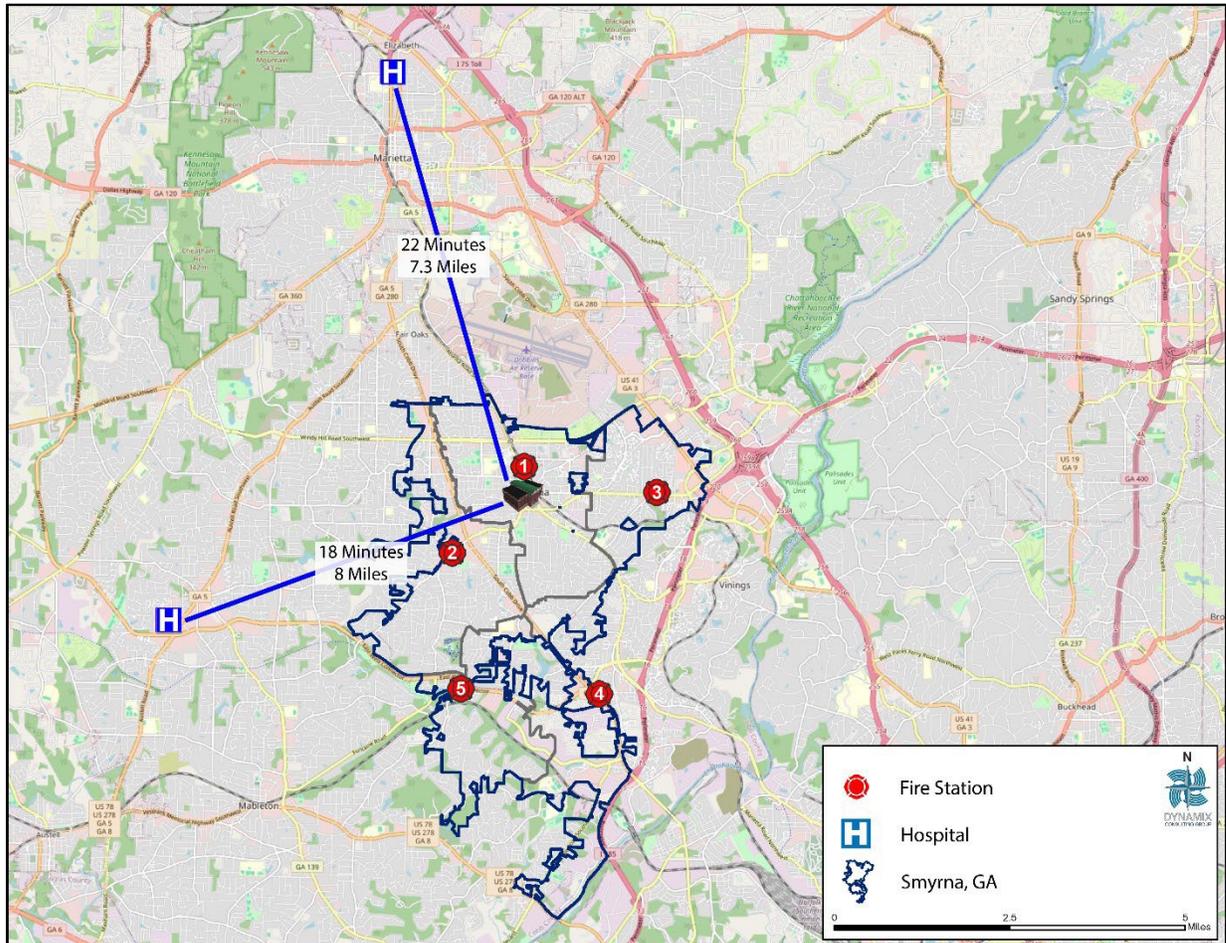
Schools



Hospitals and Emergency Departments

Hospitals, emergency treatment centers, and clinics are essential to the City of Smyrna, just like any city or town in the United States. Emergency treatment locations provide vital healthcare services to residents of Smyrna, including emergency care, minor surgeries, and specialized medical treatment. Treatment centers are often staffed by highly trained healthcare professionals with lifesaving equipment making the facilities critical to the City. While there are no hospitals with an emergency department located in the City of Smyrna, Wellstar Kennestone and Wellstar Cobb are both less than ten miles from the city.

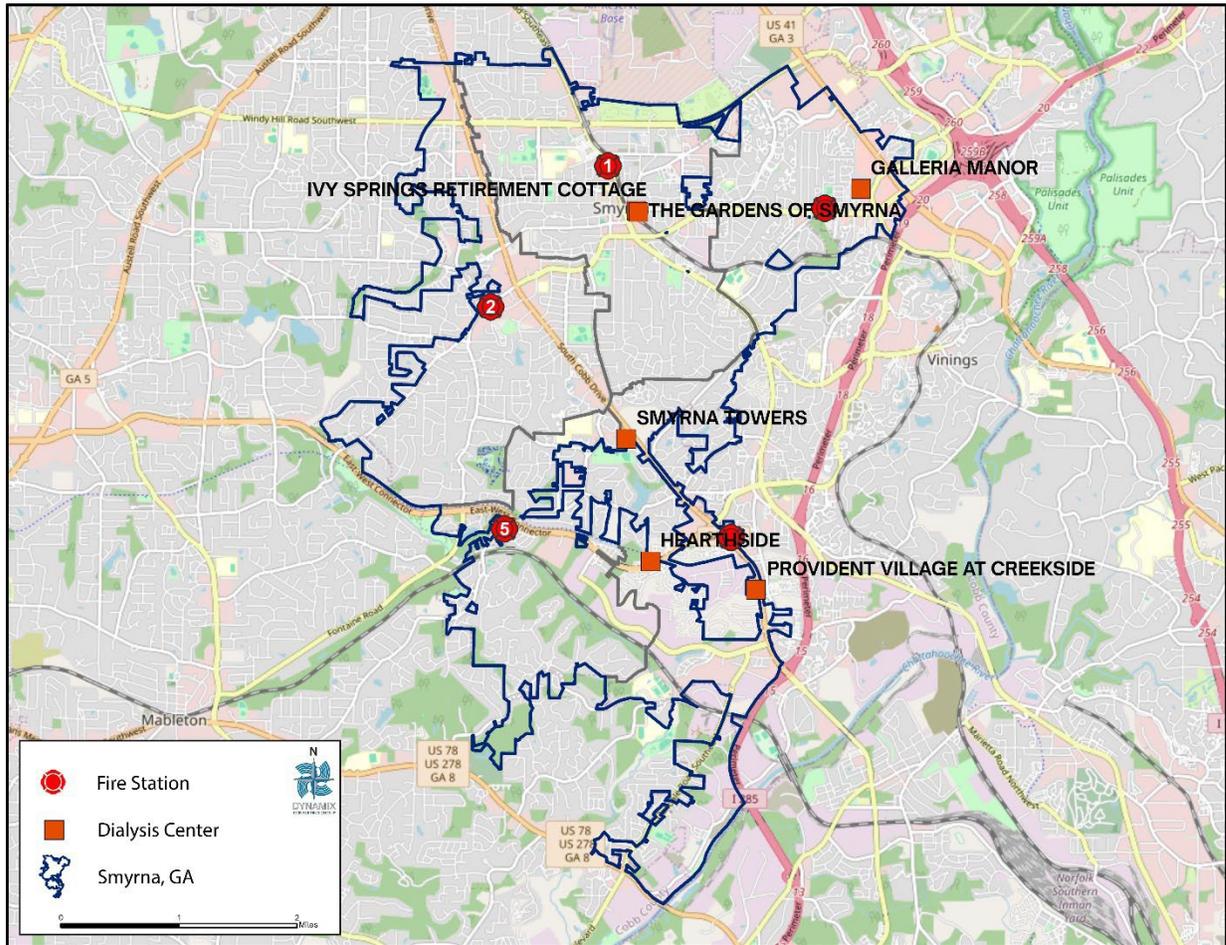
Area Hospitals



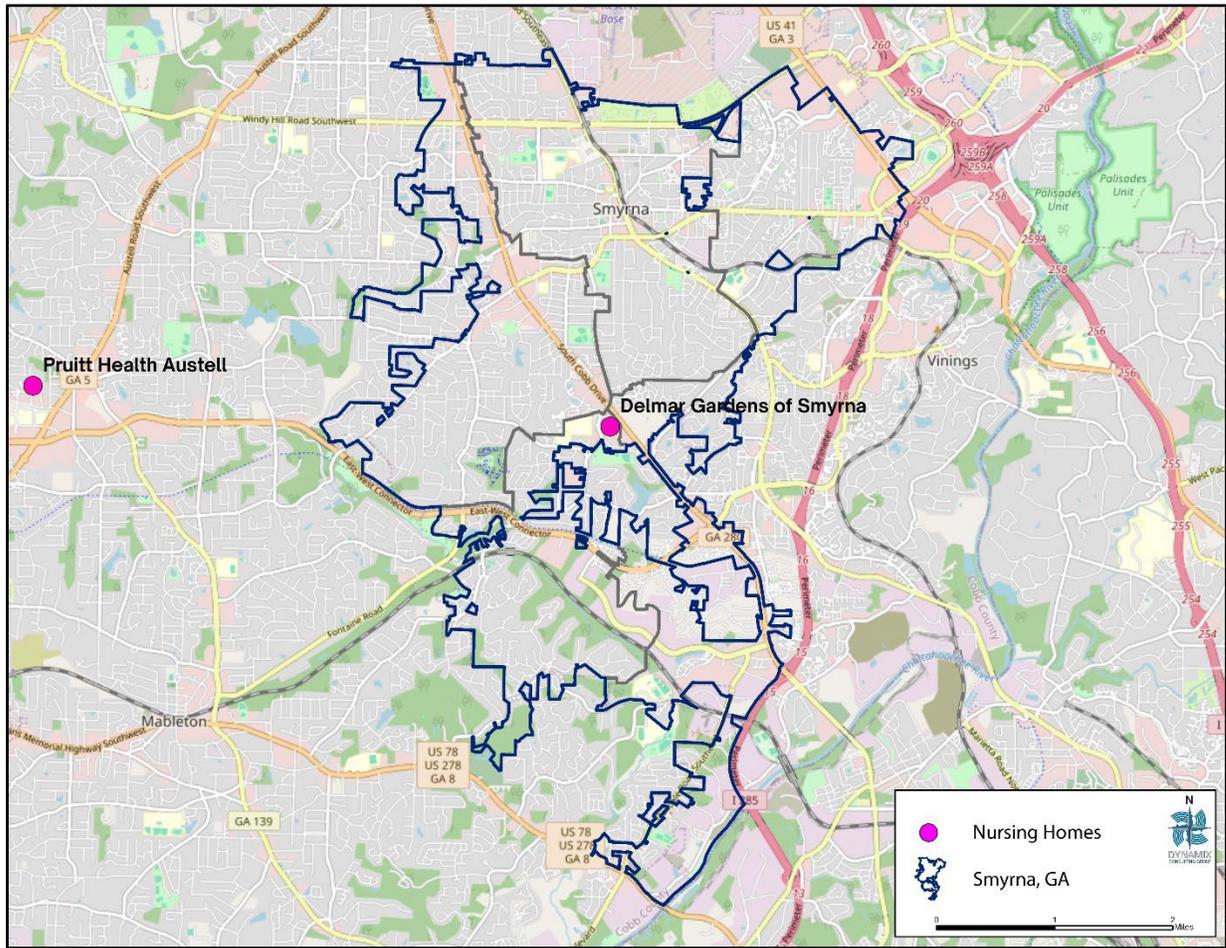
Health Care Facilities

Though less numerous than in other communities, health care and assisted living facilities can burden emergency services when these services are used to supplement care facility staff or other functions, such as interfacility transport. This is primarily due to the nature of these facilities that care for disabled and elderly citizens. The following maps illustrate the locations of Assisted Living Facilities, Nursing Homes, and Dialysis Centers within the City of Smyrna.

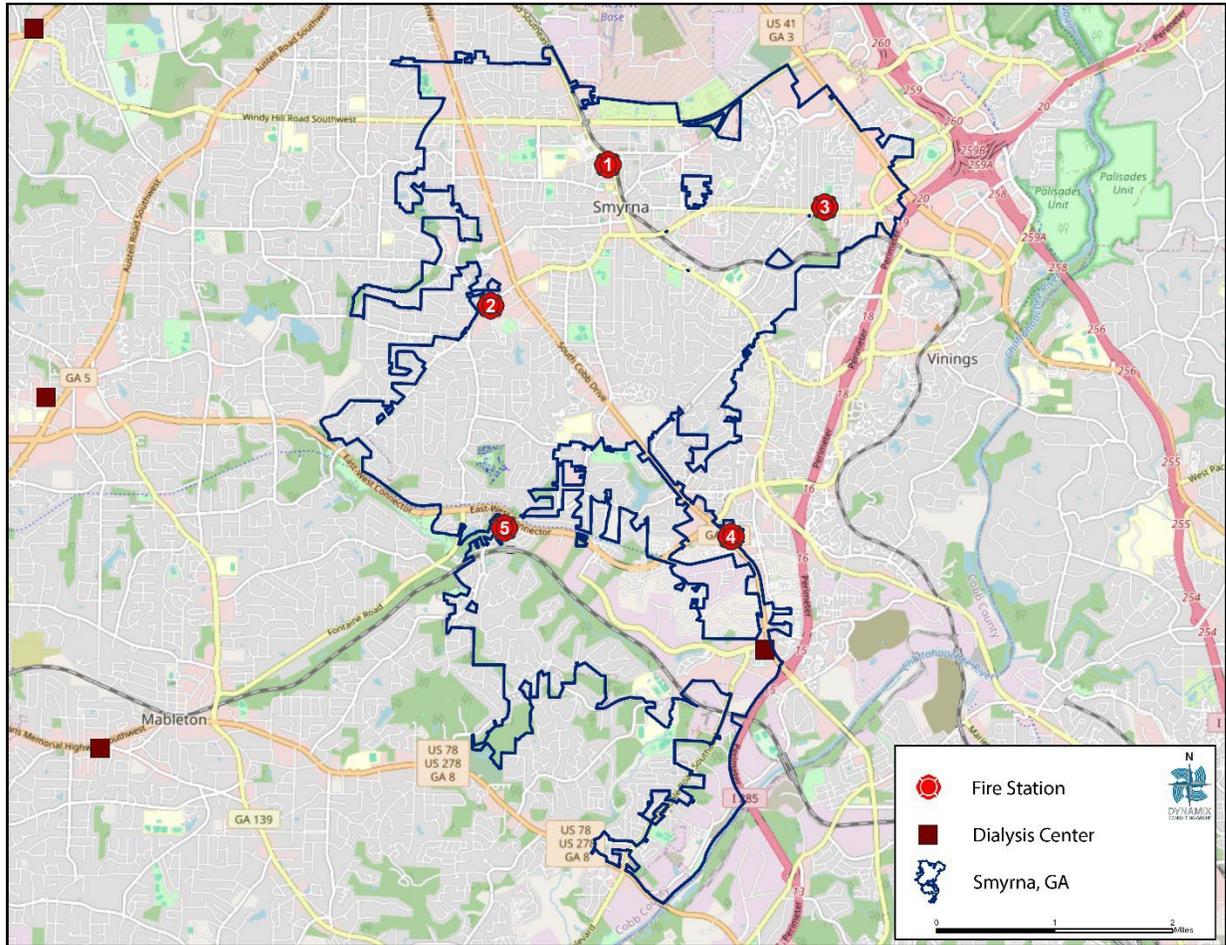
Assisted Living Facilities



Nursing Homes



Dialysis Centers

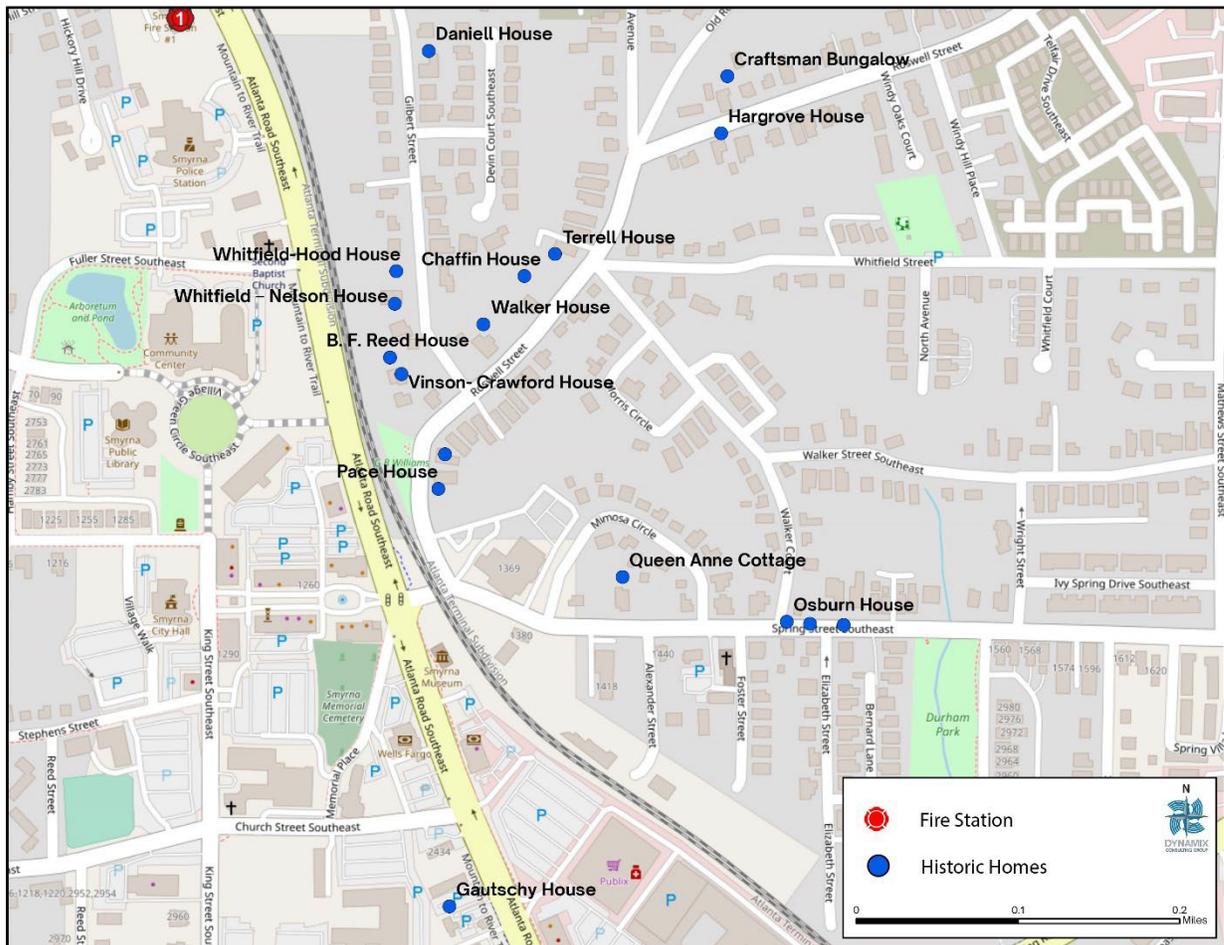


The Smyrna Fire Department should establish response priorities for nonemergency service requests from healthcare facilities as the department’s mission is emergency response. Many communities have struggled with increased nonemergency service demand and workload when the nature of the relationship between such facilities and emergency services is not well defined.

Historic Buildings

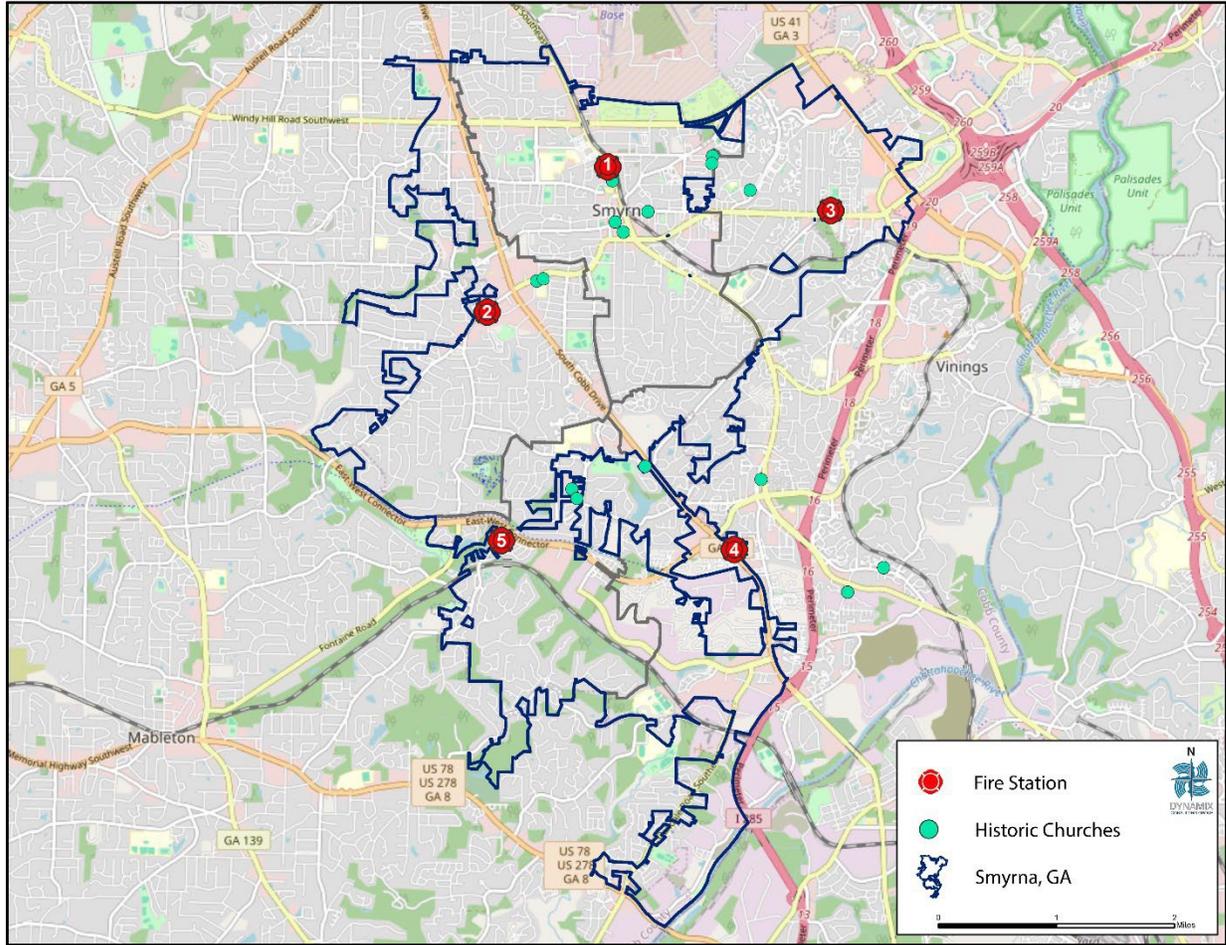
Historic buildings provide the community with sentimental attachment or historical significance. Although these buildings may not represent a traditional risk, losing one or more of these structures can negatively impact the community.

Historic Homes – Williams Park



Name	Address
Gautschy House	2968 Atlanta Road
Whitfield – Nelson House	2730 Gilbert Street
B. F. Reed House	2751 Nelson Lane
Vinson- Crawford House Queen Anne Cottage	1335 Roswell Street
Craftsman Bungalow	1423 Spring Street
Hamby House Daniell House	1469 Roswell Street
	1312 Roswell Street
	2635 Gilbert St
	2720 Gilbert St
Whitfield-Hood House Osburn House	1486 Spring St
	1496 Spring St
Suttles House	1510 Spring St
Stanback House Pace House	1308 Roswell St
	1351 Roswell St
Walker House	1371 Roswell St
Chaffin House	1389 Roswell St
Terrell House	1460 Roswell St
Hargrove House	

Historic Churches



Name	Address
Smyrna Baptist Church	1275 Church Street
First United Methodist Church Log Cabin Church	1315 Concord Road
Collins Springs Primitive Baptist Church Mt.	2699 Log Cabin Drive SE
Zion Baptist Church	4775 North Church Lane
St. Benedict's Episcopal Church Second Baptist Church	2642 Hawthorne Avenue SE
Spring Street Baptist Church Smyrna	2160 Cooper Lake Road
Christian Church	2698 Atlanta Road
Tillman United Methodist Church Vinings	1464 Spring Street SE
First Baptist Church	910 Concord Road
St. Thomas the Apostle Catholic Church	940 Concord Road
Kings Chapel AME Church	4182 S. Cobb Drive SE
Greater Zion Hill Baptist Church	4300 King Springs Road
	4336 King Springs Road SE
	2600 Davenport Street
	2010 Village Parkway

Major Community Events

Jonquil City Jog - The Jonquil City Jog is held every April on a Saturday and features a 5K, 1-mile, and a Tot Trot race. The race occurs in front of Smyrna City Hall in downtown Smyrna. As one of the best community races in Metro Atlanta, the Jonquil City Jog consistently draws a great crowd for this flat, fast, and family-friendly course.

Spring Jonquil Festival - The festival is located around City Hall. Streets in front of and behind City Hall are closed, and a large parking lot behind City Hall hosts booths in a portion of the lower lot. The Smyrna Spring Jonquil Festival features over 150 Arts & Crafts booths, 12 food booths, an entertainment stage, and various children's activities. The Jonquils will bloom in springtime in Smyrna. The event includes an interactive children's area with inflatable activities, sand art, and more.

Food Truck Tuesdays - The Smyrna Food Truck Tuesdays are held each Tuesday from May 2 through September 26 at Taylor-Brawner Park from 5:00 p.m. until 9:00 p.m. Each week a gathering of quality mobile gourmet trucks with live music.

Memorial Day Ceremony - Every Memorial Day, a distinguished Veteran is invited to speak on the importance of Memorial Day. The event is held at the Veterans Memorial next to City Hall.

June Concert – Held in downtown Smyrna from 7:00 pm until 10:00 pm, a live concert is held featuring various genres of music.

July Concert – Held in downtown Smyrna from 7:00 pm until 10:00 pm, a live concert is held featuring various genres of music.

Taste of Smyrna – In September, the downtown Smyrna Taste of Smyrna event features food, music, and fun. A wide selection of foods from over 30 restaurants, kid's activities, and entertainment are available.

Hispanic Heritage Celebration - Smyrna's Hispanic Heritage Celebration engages and celebrates Hispanic Heritage Month with fun activities for the whole family. The event takes place at Village Green Park in downtown Smyrna.

Smyrna Spookfest Trails & More – Featured is an enchanted trail walk and haunted scares for the whole family with an evening of tricks and treats.

Crafts and Drafts – Held in downtown Smyrna, the Fall Festival hosts "Crafts & Drafts," football on big screens, 150 arts & crafts booths, 12 food booths, and plenty of children's activities.

Smyrna Birthday Celebration – Held on Atlanta Road, this birthday celebration includes an all-day festival with food vendors, street performers, and three concert stages that conclude with evening fireworks.

Halloween Costume Contest - The Smyrna Police Department hosts a costume contest on the steps of the Veterans Memorial near City Hall at the Fall Festival. Law enforcement representatives are on hand to answer questions that you might have about Trick 'r Treating safely.

College Football Saturday - The Smyrna Market Village by Atkins Park hosts an LED screen broadcasting live college football! Also available are games, music, and prizes for the whole family.

Veteran's Day Ceremony - The Veterans Memorial (next to City Hall) features a Keynote Speaker and remembers prior and current United States military veterans.

Coming Home for the Holidays - In downtown around City Hall, a kick-off celebration for the holiday season is held with tree lighting, Santa, and a giant Christmas Tree. Also available are music and a Christmas Carole singalong.

Smyrna Handmade Holiday Market – Hosted at the Brawner Hall and Reed House, the Smyrna Handmade Holiday Market is held in December.

Santa House - The Santa House at the Taylor-Brawner House allows families to take a picture with Santa.

Smyrna Bright Nights: A Community Celebration - Smyrna Bright Nights features an interactive map highlighting homes with light displays around Smyrna.

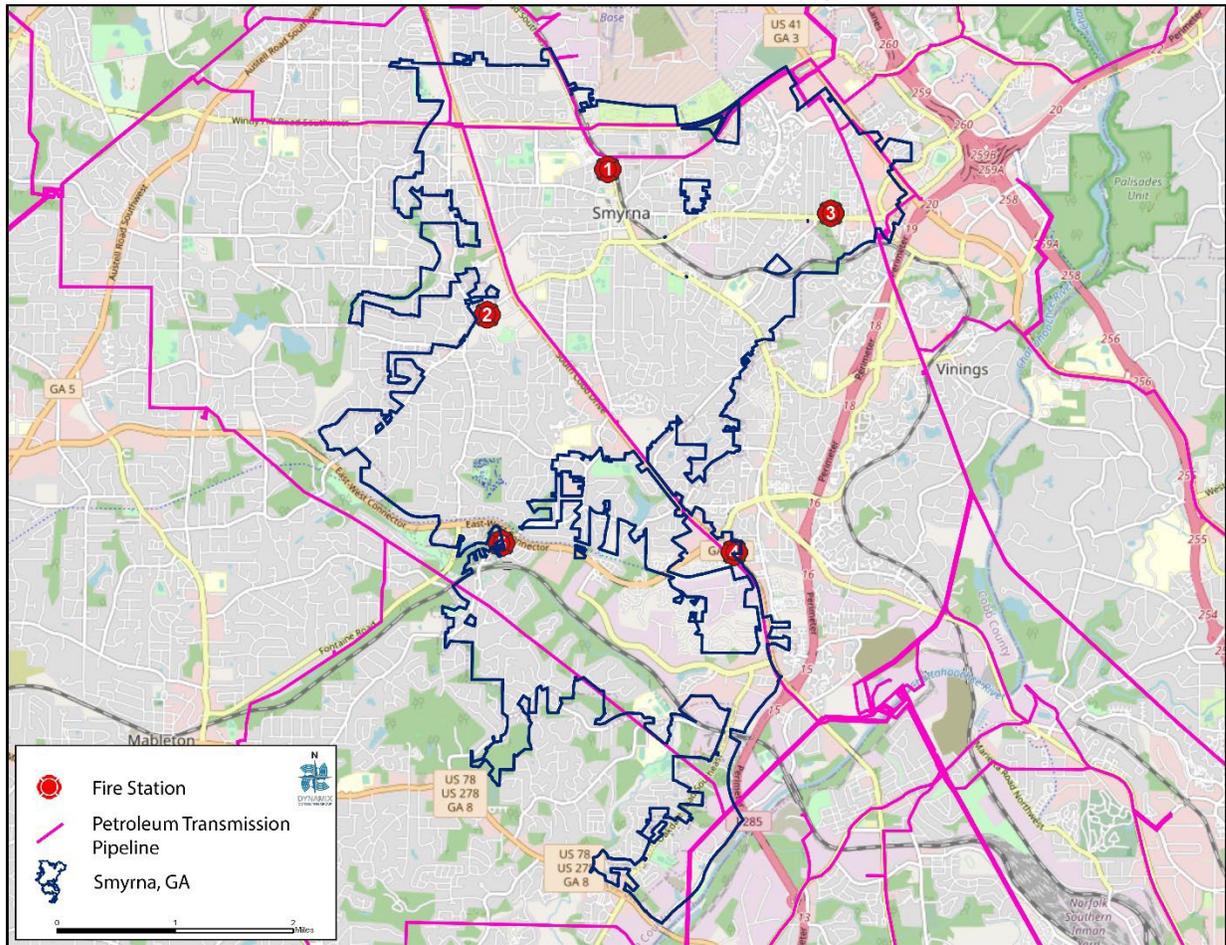
Utilities

Petroleum

U.S. Code Title 49 Subtitle VII Chapter 601 states, “Pipeline transportation means transporting gas and hazardous liquids.” Pipelines may be buried or above ground and transport substances, including sewage and water. Consistent with the Cobb County Hazard Mitigation Plan, pipelines are transportation arteries carrying hazardous substances for this section.

While nearly impossible to eliminate all risks associated with hazardous materials transportation such as pipelines, there are several precautions that both industries and municipalities can take, and train for, in the event of an accident or bad actor. A community can learn how to respond appropriately when an incident occurs through better education, community outreach, and an understanding of what hazardous materials affect an area or region.

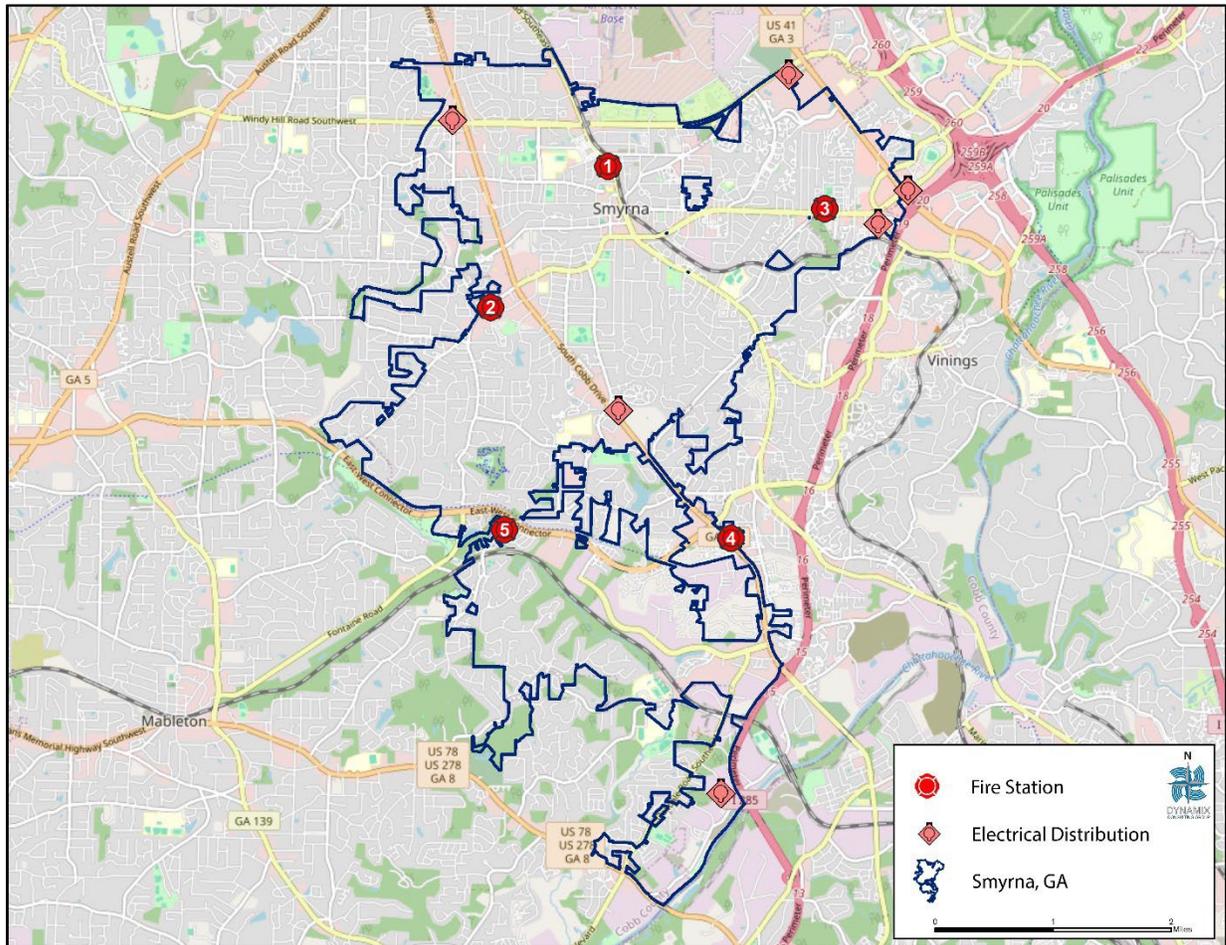
Petroleum Transportation Lines for Processing



Electricity

Several electrical service providers distribute power throughout Smyrna. Below is an overview of the general locations of electrical substations present within the municipal boundaries. These locations are important as not only are they required for power to be transmitted to residents, but an incident such as a fire or explosion could pose serious risks to responders and the surrounding areas.

Electrical Distribution



Wastewater Treatment Facilities

The Water and Sewer Division of the City of Smyrna is responsible for water and sewer services. The division manages 250 miles of water and 140 miles of sewer lines. Its 21 employees work tirelessly to ensure public safety and satisfaction. Their duties range from emergency repairs and routine maintenance to installing water and sewer taps and replacing aged lines. Additionally, the division is accountable for safeguarding the public water supply from contamination and providing continuous and reliable wastewater service to all customers.

Land Use and Zoning

Land use and zoning regulations dictate how a community grows and changes over time. Without a comprehensive plan for growth and enforcement of land use ordinances, communities can develop in ways that congest traffic and result in unsightly buildings or processes near where people live.

Land Use

Tracking and identifying activities occurring within a building or on an undeveloped property can often begin the risk classification process. Zoning maps provide permitted use information for each parcel identified by land use designation. Vacant lots and open land typically offer much lower risk than commercial or industrial occupancies, as open areas lack the people and activities usually associated with emergencies. Fires in commercial occupancies often lead to higher dollar losses than many residential properties, and the long-term income loss affects the people employed by the business when destroyed.

Zoning

Community Development in Smyrna performs planning for the present and long-range planning for the City. Today's planning involves the City's Zoning Code, which reviews locations and subdivision plans for new construction and development permits. The City of Smyrna is sectioned into zoning classifications based on the vicinity of thoroughfares, public amenities, and natural boundaries. Zoning regulations are enforced to establish minimum lot sizes and setbacks, building architecture, parking needs, and signage control. Zoning codes are regularly updated to remain consistent with the community's changing desires.

The City's Comprehensive Plan provides statistics and analysis necessary to estimate the City's future needs and guides stakeholders with long-range planning initiatives. The Comprehensive Plan's data is analyzed to support the goals and policies for land use transportation, natural resources, housing, and economic development.

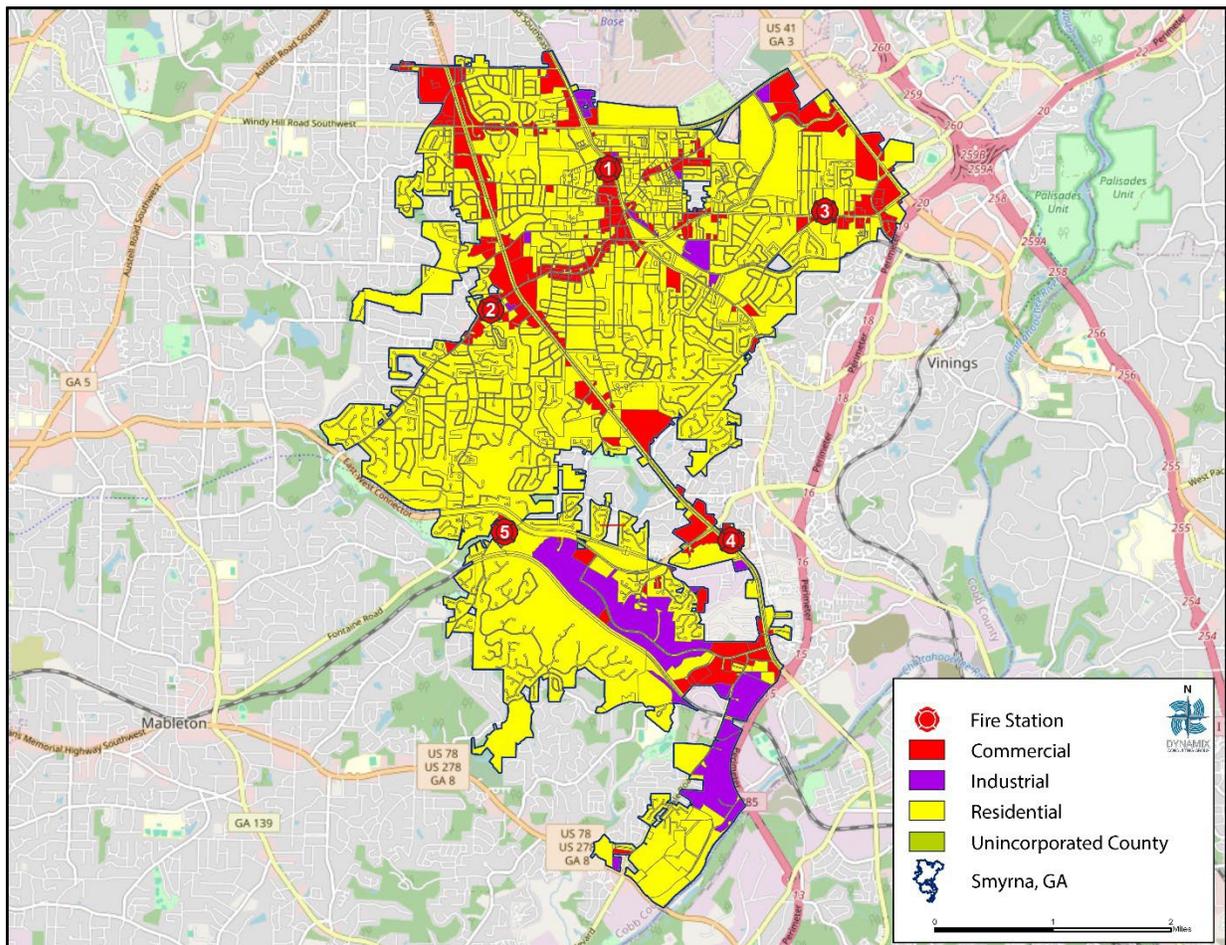
The Generalized Zoning Classification map below demonstrates the boundaries of the City of Smyrna, along with several zoning classifications. The red-shaded area on the map shows commercial areas. Commercial sites, specifically commercial buildings, often require multiple tactical operations when the building is involved in fire. Rescue, interior fire attack, exposure protection, and ventilation are a few of the tasks that must be addressed immediately and must be coordinated with an on-scene incident commander. Often, fire departments expend all resources trying to control commercial building fires leaving response districts unstaffed until mutual aid departments can travel to assist in coverage. Failure to quickly control a commercial building fire may lead to severe injuries, structural collapse, and possibly fire extension to other structures. In most cases, commercial building fires are prolonged events that can negatively impact a neighborhood for several months.

The purple areas below represent zoning for industrial locations. Incidents involving industrial buildings can be complex and require many firefighters to be brought to a scene due to the size and complexity of the building. Firefighting strategies and tactics are very

similar in commercial facilities and buildings where industrial work occurs. Industrial buildings sometimes store hazardous materials used during producing or maintaining goods and equipment. Emergencies in industrial areas or facilities may trigger small or large-scale evacuations in the region if dangerous chemicals are involved. A large evacuation in Smyrna would require most if not all, on-duty personnel to assist other local first responder agencies in notifying and removing citizens in the evacuation zone.

The yellow-shaded areas on the map below indicate the residential regions of Smyrna. Residential structures in Smyrna vary in architecture and size throughout the City, with most homes being one to three stories in height. According to the United States Fire Administration, over 80% of all fire deaths occur in residential occupancies. In addition, approximately 33% of firefighter fatalities occur in residential structures while firefighters are engaged in fire suppression activities. Lastly, the NFPA 1710: *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public* states that a single-family home that is approximately 2000 sq ft, with no basement and no exposures must have a minimum of 16 personnel on the scene of a fire (17 if the aerial device used) to perform all tasks associated with fire suppression properly.

Generalized Zoning Classifications

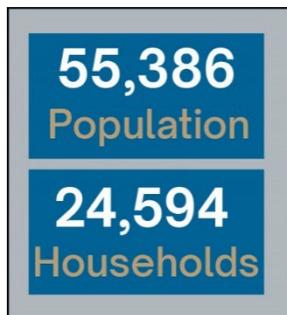


The following figure translates zoning to categories of relative fire and life risk.

Fire and Life Risks

Relative Risk Category	Zoning
Low Risk	Areas zoned and used for agricultural purposes, open space, and very low-density residential use.
Moderate Risk	Areas zoned for medium-density single-family properties, small commercial and office use, low-intensity retail sales, and equivalently sized business activities.
High Risk	Areas zoned for higher-intensity business districts, mixed-use spaces, high-density residential, industrial, warehousing, and large mercantile centers.

Housing Profile



The Smyrna Fire Department’s service area has an estimated 55,386 people living in 24,594 households.

In February 2023, Smyrna’s home prices were up by about 4% compared to 2022, selling for a median price of \$443,000. On average, homes in Smyrna sell in 42 days.

According to the NFPA, the top five causes of fatal fires are cooking, heating, electrical, intentional, and smoking. These types of fires occur in all residential structure types, pressing the need

for a well-planned, coordinated educational campaign to be completed periodically to ensure that best risk reduction practices are shared with the community. A continuous community risk reduction effort can help reduce the risk of civilian and firefighter casualties.

Nationwide, a civilian died in a fire every 3 hours and 10 minutes, and a home fire injury occurred every 43 minutes in 2021. Over the last few decades, fires have decreased. However, occupants are more likely to die today than 40 years ago. Occupants have, on average, fewer than 3 minutes to escape their homes after a fire starts. With such a small amount of time for escape, all homes in the Smyrna Fire Department response district should be encouraged to install fire detection devices properly. In many areas across the United States, the Assistance to Firefighters Grant has helped departments with funding for purchasing, installing, or replacing smoke alarms in residential structures. This type of federal funding usually comes with a small cost-share payment and offers many benefits to a community.



Age of Homes

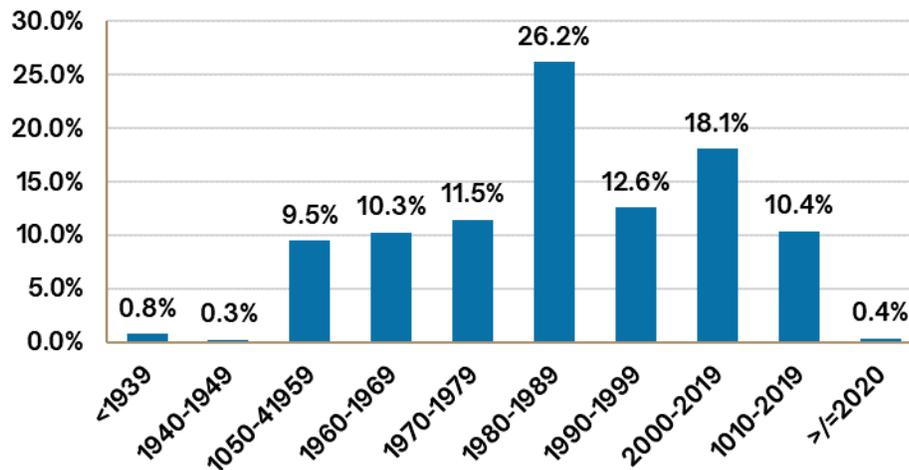
The NFPA reports that fires in homes 40 years ago allowed occupants up to 10 minutes to escape. Today, an occupant has less than 3 minutes to escape a burning structure. However, the age of the building does not necessarily mean that homes over 40 years old should be considered safer than brand-new construction. The speed at which fire spreads is often related to combustible furnishings inside today’s homes. Homes that are 40 years old, with modern furnishings, are just as likely to cause fire to spread rapidly.

Old homes are unlikely to be code compliant as there may have been very little code oversight during construction. While older homes are sometimes correlated with higher fire risk, states in New England have many older homes but a low fire death rate. This data shows that there are more variables than merely the age of the building that should be considered essential. The maintenance of the building and any significant renovations completed to increase code compliance is just as crucial.

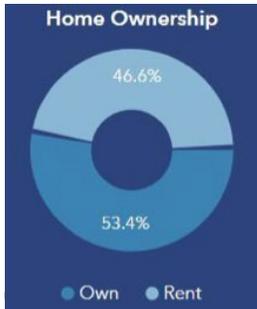
The rapid fire spread and low escape times are known risks that can be mitigated by community engagement. Informing the public of risks and how to protect themselves and their loved ones from the rapid spread of fire benefits the Smyrna Fire Department and the stakeholders in Smyrna. A 2021 NFPA study revealed that the death rate per 1000 home structure fires is 55% lower in homes with working smoke alarms than in homes without alarms or ones that fail to activate due to improper placement or lack of power.

In the City of Smyrna, more than 60% of the homes are over 30 years old, having been constructed before 1990.

Housing Year Built



Homeowner and Renter Occupied Residences

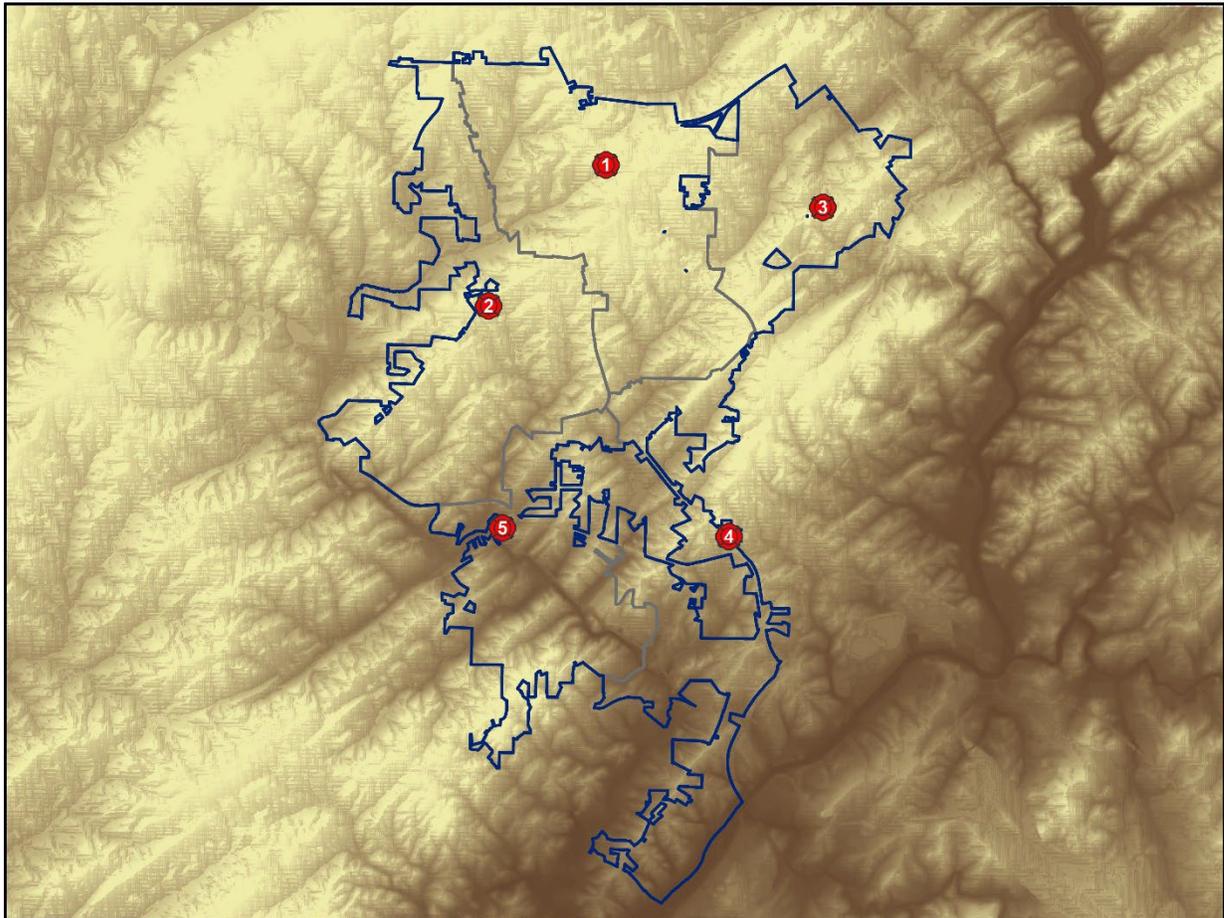


Risk indicators in a community involve property value, occupancy rate, and ownership status of homes in the community. Low-valued, vacant, or rental properties are less likely to receive maintenance and repairs compared to homes that are owner-occupied or in higher-value categories. People often maintain owner-occupied structures as owners seek to protect and improve their properties for future sales or assessments. Within the City of Smyrna, 53.4% of the homes are owner-occupied, and renters occupy 46.6%.

Topography

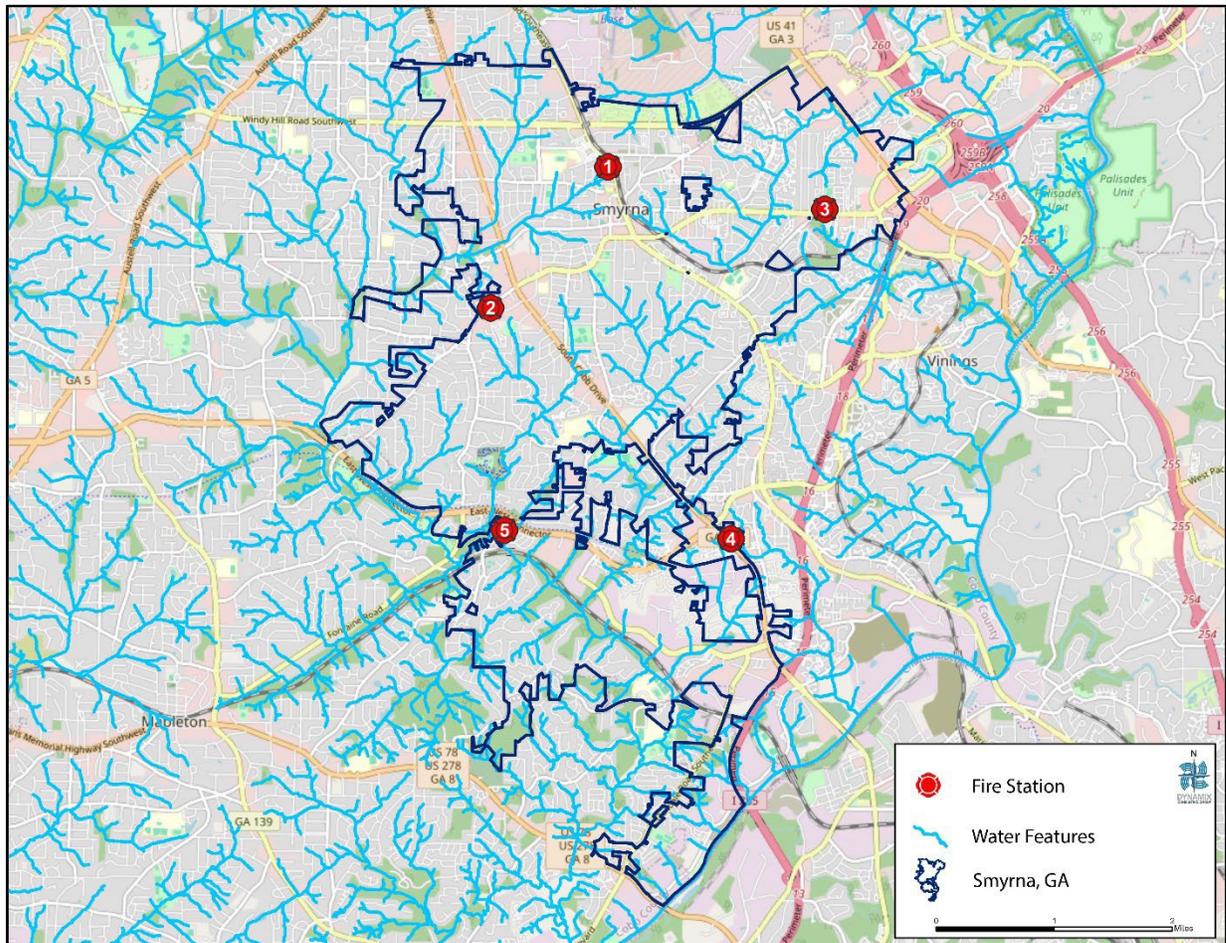
The topography around Smyrna is relatively flat within a 2-mile radius, with some modest variations in elevation up to 210 feet. Within a 10-mile radius, the variations in elevation remain modest. However, a significant mix of artificial surfaces and trees covers the area. Finally, within a 50-mile radius, there are significant variations in elevation and a combination of trees and artificial surfaces covering the area.

Topography of Smyrna, Georgia



At approximately 1,000 feet above sea level, Smyrna possesses several creek beds and the Chattahoochee River along a small portion of its southeast border. The main waterways through the City include Nickajack Creek and Poplar Creek.

Water Features



Geography

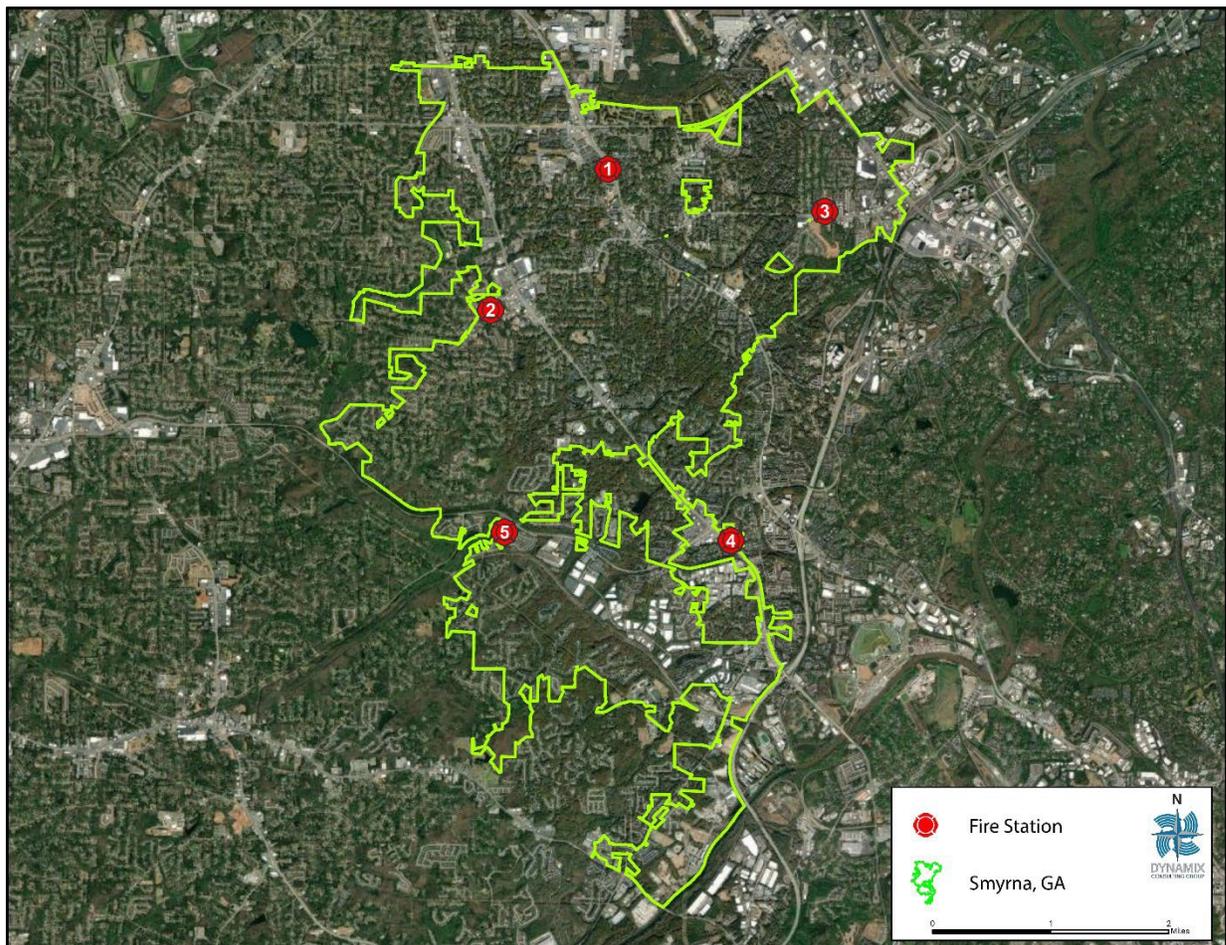
Smyrna is an integral part of the Atlanta metropolitan area, situated approximately one-mile northwest of the city limits of Atlanta. The downtown area of Smyrna is located around 16 miles away from the downtown area of Atlanta. Notably, Smyrna is positioned west of the intersection of I-285 and I-75, which is situated in the northern region.

Physiography

Northern Piedmont

The formations between the Allatoona Fault and the Brevard Fault zones are known as the Northern Piedmont. The Northern Piedmont of Georgia's major rock units comprise the New Georgia and Sandy Springs Groups. The New Georgia Group and Ashland Supergroup contain many metavolcanic rocks and similar ore deposits. The Sandy Springs Group was formed with major volcanic-bearing rock groups. This is based primarily on the fact that the New Georgia Group and Ashland Supergroup contain many metavolcanic rocks and similar types of ore deposits¹.

Physiography of Smyrna, Georgia



¹ Geology of the Greater Atlanta Region, K. McConnell, and C. Abrams, 1996

Climate

Smyrna experiences a climate marked by hot and muggy summers, short, cold, and wet winters, and partly cloudy skies throughout the year. The temperature typically ranges from 34°F to 89°F, with rare instances below 21°F or above 95°F. The humid period of the year spans 4.3 months, commencing from May 20 and extending until September 30. During this time, the comfort level is often rated as muggy, oppressive, or even miserable at least 21% of the time. July has the most humid days in Smyrna, with 25.1 days that are muggy or worse. On the other hand, February is the month with the fewest humid days, with 0.0 days that are muggy or worse.

The amount of cloud cover in Smyrna varies throughout the year. The clearest period starts on July 17 and lasts for 4.2 months until November 24. October is the clearest month, with the sky being mostly clear or partly cloudy 66% of the time. However, the skies are generally cloudy from November 24 until July 17, lasting 7.8 months. January is the cloudiest month, with the sky being overcast or mostly cloudy 53% of the time.

The definition of a wet day in Smyrna is one with a minimum of 0.04 inches of precipitation. The probability of experiencing rain in Smyrna fluctuates throughout the year. The wet season spans 7.3 months, starting on January 21 and ending on August 29, with a likelihood of over 32% for any given day experiencing rain. The month with the highest frequency of rain in Smyrna is July, with an average of 13.1 days with at least 0.04 inches of precipitation. Conversely, the dry season lasts 4.7 months, beginning on August 29 and ending on January 21. The month with the least rainfall in Smyrna is October, with an average of 6.5 days with at least 0.04 inches of precipitation. Rain alone is the most common form of precipitation all year round, with the highest probability of 44% occurring on July 9.

Smyrna experiences rainfall throughout the year, with the highest precipitation occurring in February and the lowest in August. The city also experiences some variation in snowfall during the year, with the snowy period lasting for about a month from early January to early February. The month with the most snowfall is January, and the least amount of snow typically falls around July 21.

Smyrna's average hourly wind speed experiences mild seasonal variation over the year. The windier part of the year lasts 6.8 months, from October 19 to May 12, with average wind speeds of more than 5.3 miles per hour. March experiences the highest wind speeds in Smyrna, with an average hourly measurement of 6.6 miles per hour. Conversely, the period from May 12 to October 19 is known for its relatively calmer climate, lasting approximately 5.2 months. The month of August in Smyrna is noted for its calmness, recording an average hourly wind speed of 4.1 miles per hour.

Emergency Response, Recovery, and Mitigation Planning

Emergency Operations Plan (EOP)

The Smyrna Fire Department uses the City of Smyrna's Emergency Operations Plan (EOP) to organize, staff, respond, and recover during significant emergency events. This plan provides guidance for identifying essential personnel, their roles and responsibilities, and how the City will transition from response to recovery.

Continuity of Operations Plan (COOP)

The Smyrna Fire Department uses the City of Smyrna's Continuity of Operations Plan to ensure that essential operations remain operational during any type of foreseeable or likely emergency. This plan is reviewed annually and updated as needed.

Hazard Mitigation Plan

The State of Georgia completed its first-ever federally compliant Hazard Mitigation Plan in March 2005. This significant achievement has allowed Georgia to identify and assess risks the state and local municipalities, like Smyrna, may face from natural disasters such as tornadoes, drought, and severe winter weather. The Hazard Mitigation Plan provides a framework for reducing losses and damage caused by extreme events through hazard mitigation strategies. The plan helps the municipal leadership prioritize resources and allocate them effectively to minimize the impact of disasters. Lastly, having this Hazard Mitigation Plan completed and updated allows Georgia to request federal disaster assistance and grants, including pre-disaster mitigation funding, post-disaster funding, and hazard mitigation grants. Overall, the Georgia Hazard Mitigation Plan is essential for protecting lives, property, and the economy from the devastating effects of natural disasters. It is a crucial tool for ensuring the resilience of the state's communities. Below are the disasters that the Cobb County Hazard Mitigation Plan has prioritized as needing immediate attention.

The City of Smyrna, in conjunction with Cobb County, has developed a comprehensive evaluation and prioritization of local hazards as part of the 2021 Cobb County Hazard Mitigation Plan. The Cobb County Mitigation Plan was adopted by resolution on August 16, 2021, by the Mayor and Council. The Dynamix Consulting Group is partially basing the Community Risk Assessment section on the Cobb County Hazard Mitigation Plan, as emergency response and deployment strategies should be coordinated with Cobb County planning efforts.

The FEMA Threat / Hazard Identification and Risk Assessment assessed the hazards addressed in Cobb County's 2016 Hazard Mitigation Plan and the State of Georgia's 2019 Hazard Mitigation Strategy, Standard and Enhanced Plan, and a final decision was made to include the following nine hazards in the 2021 Hazard Mitigation Plan. The Local Emergency Operations Plan was approved by the Mayor and Council on 12/4/2023.

Natural and Manmade Hazards

Drought

A drought is a deficiency of precipitation for an extended timeframe resulting in a water shortage. Common effects of drought include crop failure, water supply shortages, and fish and wildlife mortality. Droughts are a slow or long-lasting hazard that can impact any community across the United States. Planning for droughts can reduce the impact on a community and assist with a faster recovery from the loss of water supply.

Hazard mitigation planning for droughts will help reduce the loss of life and property by minimizing the impact of such a disaster. Planning will enable the City of Smyrna to build resilience to naturally occurring drought events and plan for extended water loss episodes. Since 2000, Cobb County has experienced 33 droughts ranging from slightly dry to extremely dry. Cobb County can expect 2.33 drought events per year. Even though a drought does not pose an immediate risk of loss of life or injury, it can significantly impact a jurisdiction's agriculture and tourism economies².

During the hazard mitigation planning process, communities like Smyrna should consult various sectors during plan development. These sectors should include public safety, emergency management, economic development, housing, infrastructure, and natural resource groups. A drought can impact many aspects of the community, and bringing many stakeholders to the table is imperative to ensure that expertise, communication, and strategic planning are all considered.

Earthquake

Earthquakes are sudden rolling or shaking events caused by movement under the earth's surface. This earth movement is monitored by the USGS and measured using a point system called the Richter Magnitude Scale. This scale scores earthquakes between 0- up, with each number representing a general expectation of damage. Earthquakes happen along cracks in the earth's surface, called fault lines, and can be felt over large areas. Earthquakes usually last less than one minute but can cause substantial damage to infrastructure in a short amount of time. Approximately 15% of earthquakes worldwide are scattered over areas similar to Georgia that lack clearly defined active faults. Although earthquakes in Georgia are rare, scattered earthquakes can cause significant damage and are essential when assessing risk. Georgia's northwest counties, South Carolina border counties, and central and west central Georgia are most at risk.³

² NOAA/NCEI Storm Events Database

³ temblor.net

The City of Smyrna is located within the Brevard Fault Zone. The USGS database shows that 79 earthquakes occurred between 1956 and 2017 within 250 miles of Cobb County and northern Smyrna⁴.

Flooding

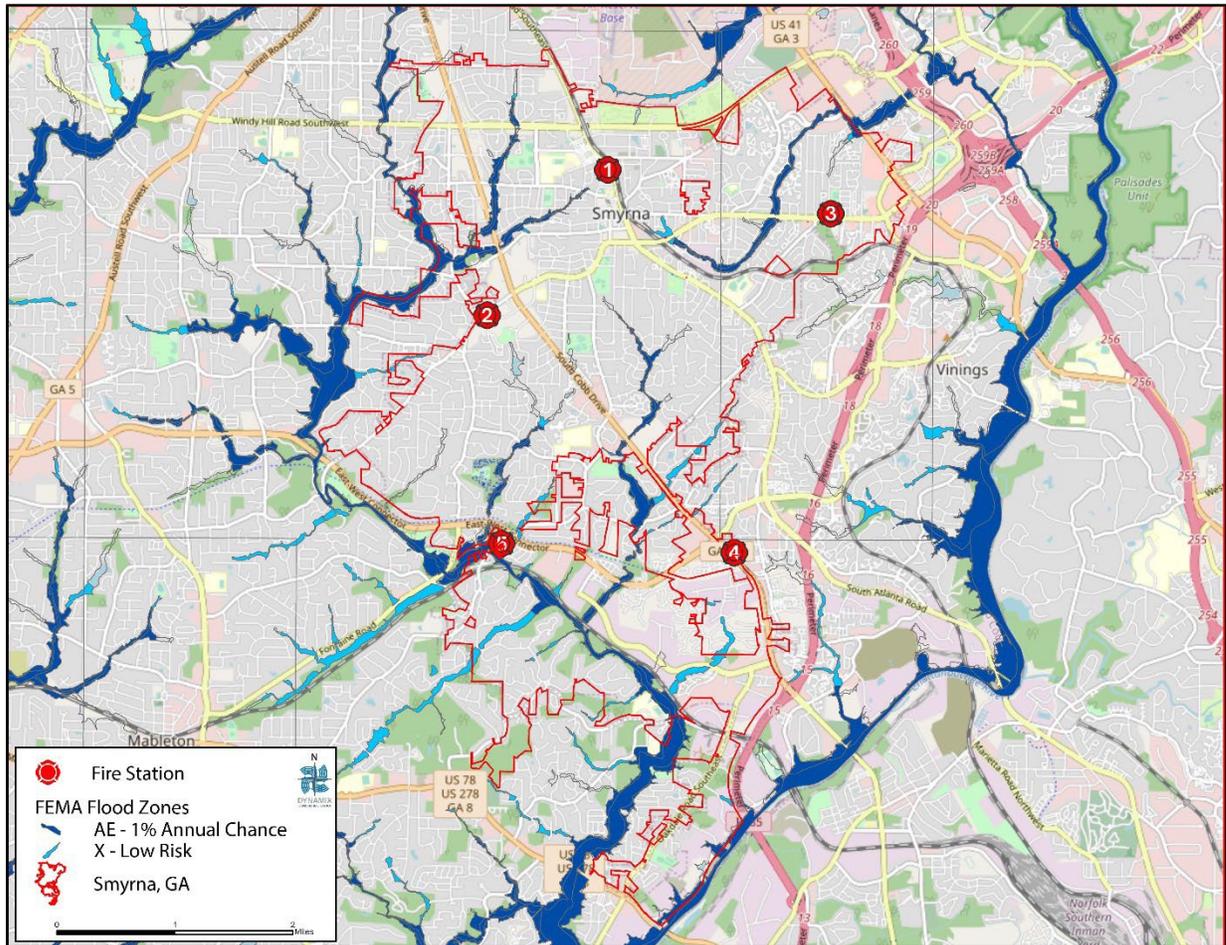
FEMA defines a flood “as two or more acres of dry land or two or more properties that are covered by water temporarily.” FEMA goes on further to state that in many cases, floods are caused by the overflow of inland or tidal waters or unusual and rapid accumulation or runoff of surface waters from any source. A side effect of flooding is landslides or mudslides. They are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when the earth is carried by a water current and deposited along its path. The collapse or subsidence of land along a lake shore or similar body of water due to erosion or undermining can result in significant damage, particularly when anticipated cyclical levels are exceeded.

Richter Magnitude	Earthquake effects
0-2	Not felt by people
2-3	Felt little by people
3-4	Ceiling lights swing
4-5	Walls crack
5-6	Furniture moves
6-7	Some buildings collapse
7-8	Many buildings destroyed
8-Up	Total destruction of buildings, bridges and roads

⁴ https://www.sms-tsunami-warning.com/pages/seismology-measurement#.ZEQefC_MKak

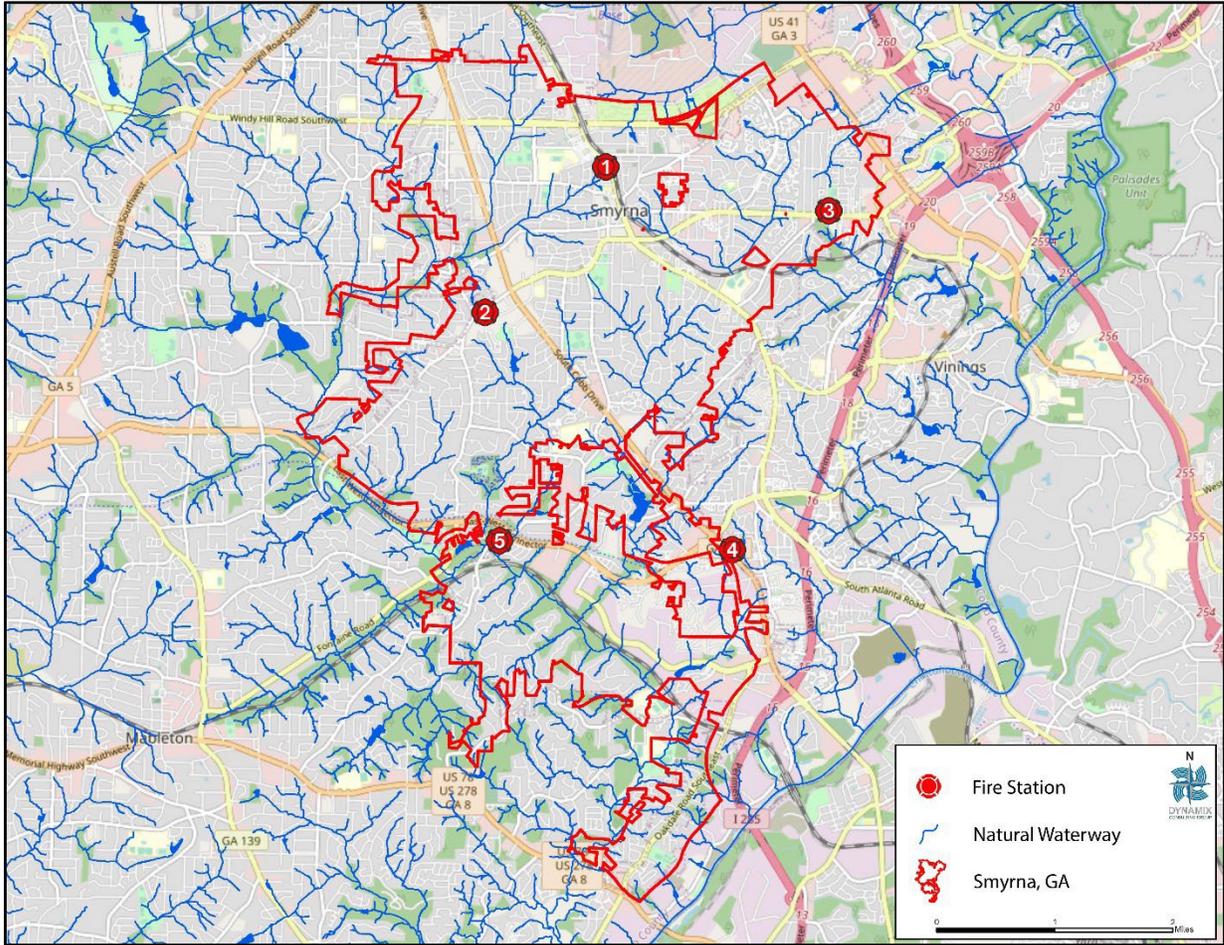
Residents of Smyrna living in flood zones or areas with the potential of flooding should remain informed of the risks associated with flooding. The Smyrna Fire Department must also consider the dangers of flooding when evaluating station locations and planning new station builds. Flood zones and flood insurance information should be a part of the public education process to ensure flood awareness and the actions residents need to take to ensure readiness.

Smyrna Flood Zone Designations⁵



⁵ www.georgiafloodmapprogram

Smyrna Streams and Lakes



Severe Weather



Severe weather includes strong winds frequently combined with rain, snow, sleet, hail, ice, thunder, and lightning. Consistent with the Cobb County Hazard Mitigation Plan, this section does not include secondary hazards or impacts resulting from severe storms, including flooding, landslides, energy emergencies, closed transportation routes, and environmental damage. Some of these hazards are addressed separately in their

section.

Geography and climate offer a rationale for the threats and vulnerabilities. Since the environment in Smyrna is typically mild, severe weather tends to hit the area harder. It significantly impacts certain critical services like transportation, communications, and utilities. During severe weather, the Smyrna Fire Department should expect to experience a substantial increase in requests for assistance. The emergency services system may

be overwhelmed, depending on the weather event and the availability of staff able to respond during emergency call-back situations.

Severe Winter Weather

Major winter storms usually occur with some warning to the community. Over the last several years, weather forecasting predictability and warning systems have improved with accuracy there is still a significant risk to pedestrians and motorists due to ice, freezing rain, and snow. During major winter storms, trees, powerlines, and roofs become unstable and fail. The loss of powerlines and downed trees can significantly impact neighborhoods and communities by knocking out power and limiting access for first responders and utility crews tasked with emergency response and restoring power.

Tornados

A tornado is a rapidly rotating column of air in contact with the earth’s surface and a cumulonimbus cloud or,

in rare cases, the base of a cumulus cloud. Often referred to as a twister, tornadoes can develop and strike with little warning to a community. They come in many sizes and shapes but typically look like a funnel. Usually born from a supercell storm, a tornado’s

Fujita Scale		EF Scale	
Fujita Scale	3-Second Gust Speed (mph)	EF Scale	3-Second Gust Speed (mph)
F0	45-78	EF0	65-85
F1	79-117	EF1	86-109
F2	118-161	EF2	110-137
F3	162-209	EF3	138-167
F4	210-261	EF4	168-199
F5	262-317	EF5	200-234

physical signs include darkening or green skies, hail, and powerful train-like sounds⁶.

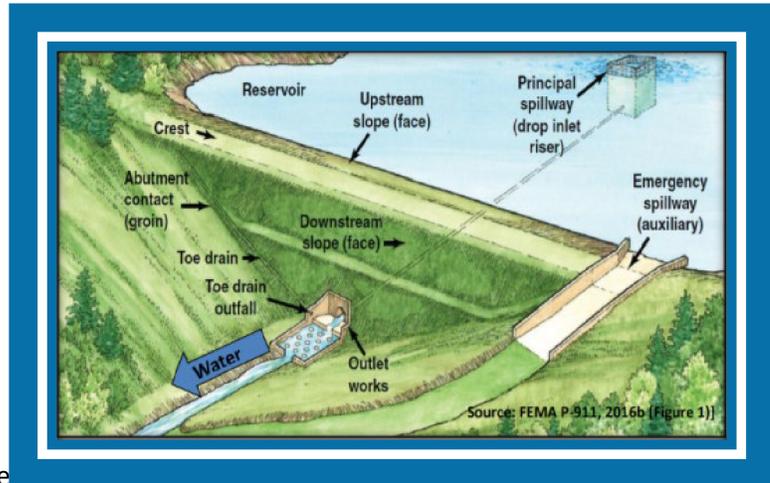
The Enhanced Fujita (EF) Scale rates tornadoes based on their estimated wind speeds and the damage caused by their winds. The scale ranges from EF 0, with winds of 65-85 mph, to EF 5, with winds over 200 mph. The scale also considers the degrees of damage to different types of structures, such as homes, schools, and commercial buildings.

Smyrna, Georgia, is located in an area called “Dixie Alley,” which is prone to frequent tornado activity. The hazards associated with tornadoes in Smyrna include high winds, flying debris, and damage to structures. The entire Cobb County population of 760,141 and all facilities, buildings, and infrastructure face a genuine threat from a tornado strike. NOAA/NCEI databases report that over 28 tornadoes impacted Cobb County between 1954-2020.

⁶ Cobb County Hazard Mitigation Plan

Wind

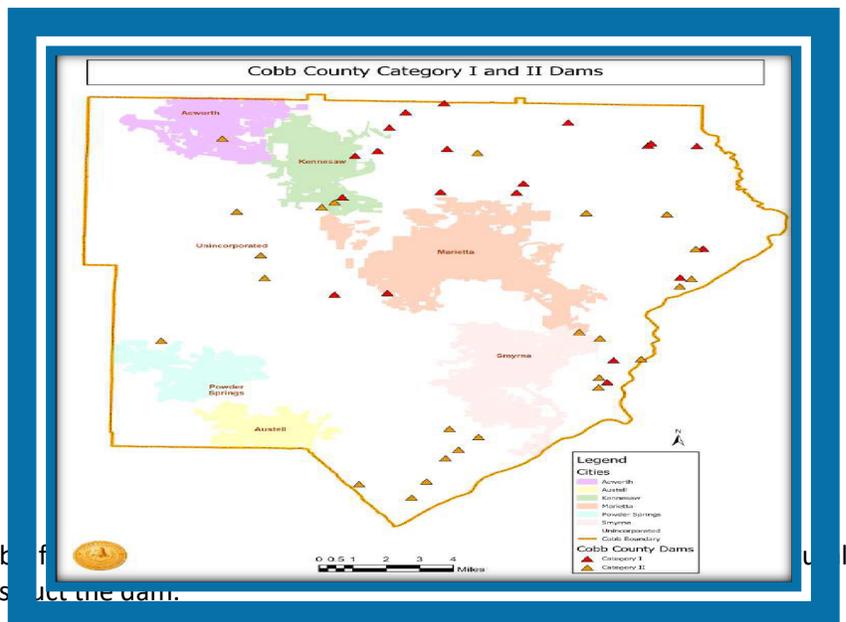
Windstorms and wind gusts can potentially cause local or widespread damage to the area’s structures, trees, powerlines, and other critical infrastructures. Depending on the strength and speed of the wind, it could also pose a risk to human life and safety. Other weather phenomena, such as hurricanes or thunderstorms, can cause extreme wind, heavy rain, and lightning.



During wind events, the SFD may be... winds, which can unexpectedly bring down power lines and trees on responding vehicles. The prioritization of response versus no response is always a difficult decision. The shift commanders or other supervisors should assess it on an incident- by- incident basis with immediate situational awareness.

Dam Failure

According to the Association of State Dam Safety Officials⁷, dams can be damaged or fail for several reasons, including overtopping caused by failure of materials used to construct the dam.



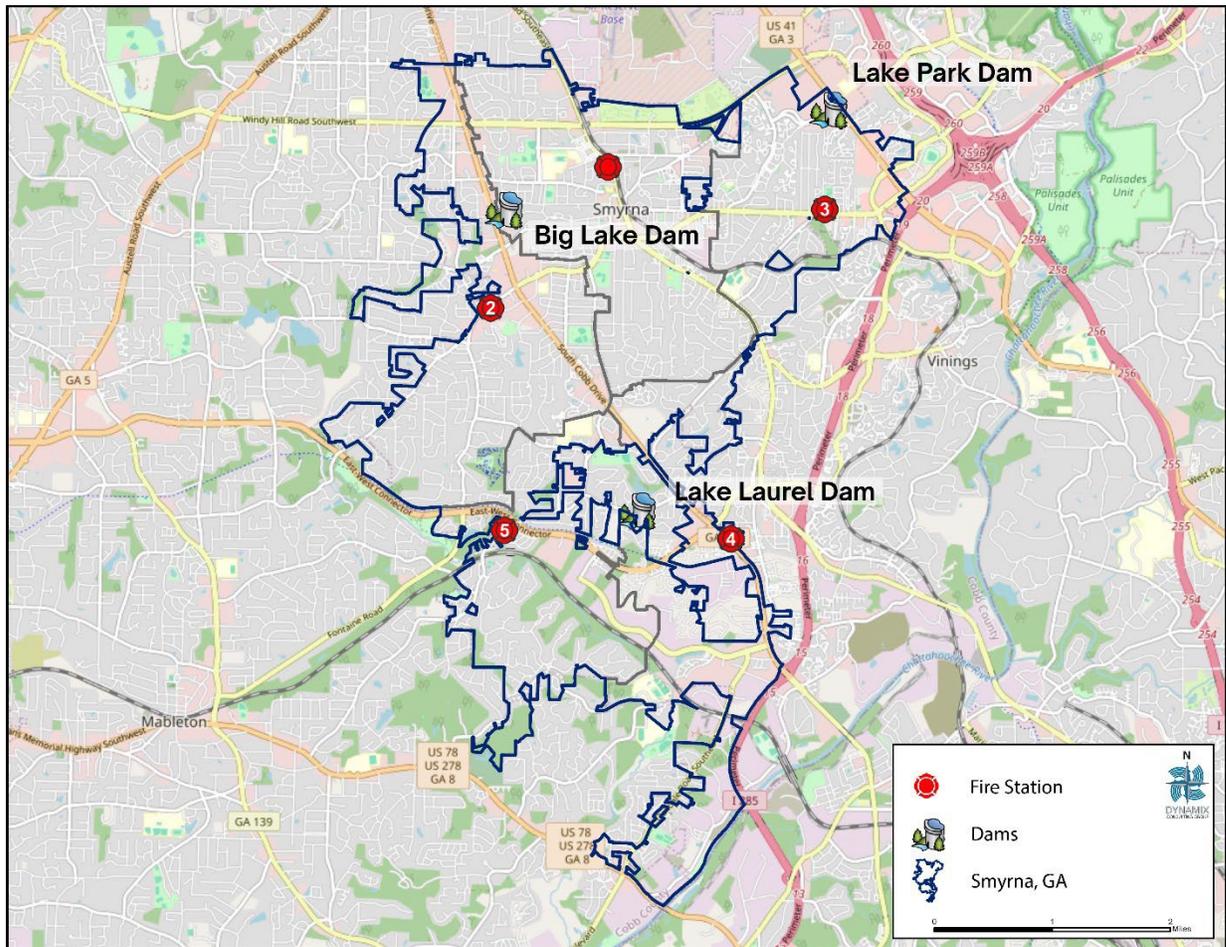
A dam does not have to be within the boundaries to impact the City of Smyrna. The State of Georgia has approximately 5,000 dams, with 95 in Cobb County. These dams hold back natural and artificial bodies of water, including lakes, rivers, and ponds. Many of the

⁷ <https://www.dcr.virginia.gov/dam-safety-and-floodplains/ds-education-dams-101>

existing dams in Cobb County are approaching the end of their service lives and have an average age of 58 years.

Of the 95 dams in Cobb County, 52 are considered category one, high hazard, regulated by the State of Georgia, and 43 are category two, low hazard, unregulated⁸. The Cobb County, Hazard Mitigation Plan, has not documented any category one or two dam failures since 2016. Still, it states that Cobb County, including the City of Smyrna, has a population of 760,141 citizens living in 304,843 housing units that would be at significant risk should there be a major dam break or dam failure in the planning area.

Smyrna Dams



⁸ <https://www.fema.gov/emergency-managers/risk-management/dam-safety/national-inventory-dams>

Hazardous Materials

When released, hazardous materials pose a potential risk to life, health, or property. A release may be intentional or unintentional and can include spilling, leaking, emitting toxic vapors, or any other process that allows the material to create a potential hazard. Hazards from releasing hazardous materials can be explosive, flammable, combustible, corrosive, reactive, poisonous, toxic, biological, or radioactive.

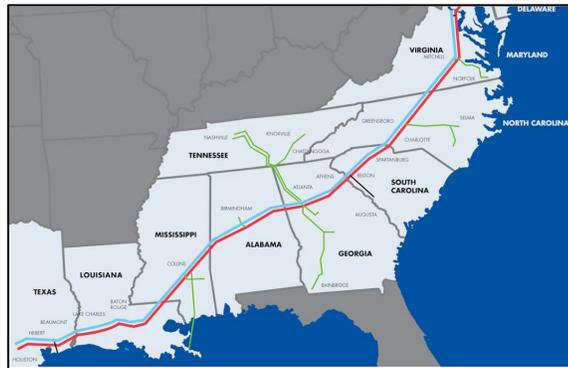
Hazardous materials are classified into four groups of chemicals under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III). These classifications are as follows:

- **Extremely Hazardous Substances:** These chemicals have acutely toxic properties and include approximately 366 chemicals.
- **Hazardous Substance:** Any material that can cause harm directly or indirectly and includes approximately 720 chemicals.
- **Hazardous Chemicals:** Inventories of these chemicals and safety data sheets must be submitted if they are present at the chemical facility in specific amounts.
- **Toxic Chemicals:** Chemicals or chemical categories that appear on the list because of their chronic or long-term toxicity. This category includes 325 chemicals.

The Cobb County Hazard Mitigation Plan addresses vulnerability to Smyrna's population. Depending on the chemical, if a hazardous material incident were to occur, it could significantly impact the population. Not only are workers of hazardous chemical storage and user sites vulnerable, but so are the communities around the facilities. Trains and significant highways are vulnerable to hazardous materials emergencies and must be considered during the hazard mitigation planning process.

The Colonial Pipeline has a Pumping Station on Spring Road within the City of Smyrna. Colonial Pipeline is the largest refined products pipeline in the United States, transporting more than 100 million gallons of fuel daily to support communities, commerce, air travel, and our nation's security.

Colonial Pipeline



Terrorism

FEMA defines terrorism as *“the use of force or violence against persons or property in violation of criminal laws of the United States for intimidation, coercion, or ransom.”* Incidents of terrorism and active threats have increased throughout the United States. They are no longer only occurring in large cities. Local and tribal police departments, local fire and EMS departments, and state-wide law enforcement agencies should be training together regularly. Incident action plans, after-action reviews from incidents, and routine training should be incorporated into the hazard mitigation planning process to ensure mistakes are corrected and strengths are emphasized.

The Cobb County Hazard Mitigation Plan has examined the risk to Smyrna and found that the severity of a terrorist incident depends on the weapon used. Acts of terrorism can impact infrastructure and critical facilities in many ways, including fire, chemical release, or explosions. A terrorist incident can affect everyone living in Smyrna. Much like planning for a hazardous materials emergency incident, Smyrna should continue participating in the Cobb County Mitigation plan to ensure seamless interoperability with participating agencies.

Terrorism is not only confined to physical attacks but also includes virtual ones. A cyberattack is a malicious and deliberate attempt by an individual or organization to breach the information system of another individual or organization. Usually, the attacker seeks some benefit from disrupting the victim’s network. Cyberattacks can affect all aspects of the community, including businesses, healthcare, banks, and municipal government.

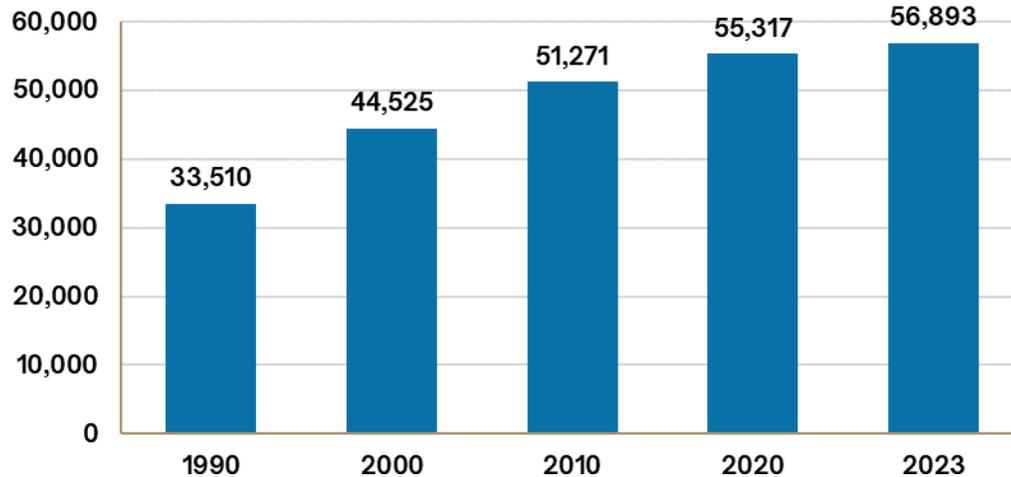
According to Security Intelligence, the number of cyberattacks targeting government agencies has experienced a 95% increase in 2022 compared to 2021. Government agencies often gather and keep large quantities of data and personal information, making

them a prime target for infiltration. Once data is obtained, selling on the dark web or to other illegal enterprises is easy.⁹

⁹ [financesonline.com](https://www.financesonline.com)

Population and Population Densities

Smyrna, Georgia - Historic Population Totals



Unless otherwise referenced, all population and demographic information is sourced from the Environmental Systems Research Institute (ESRI).

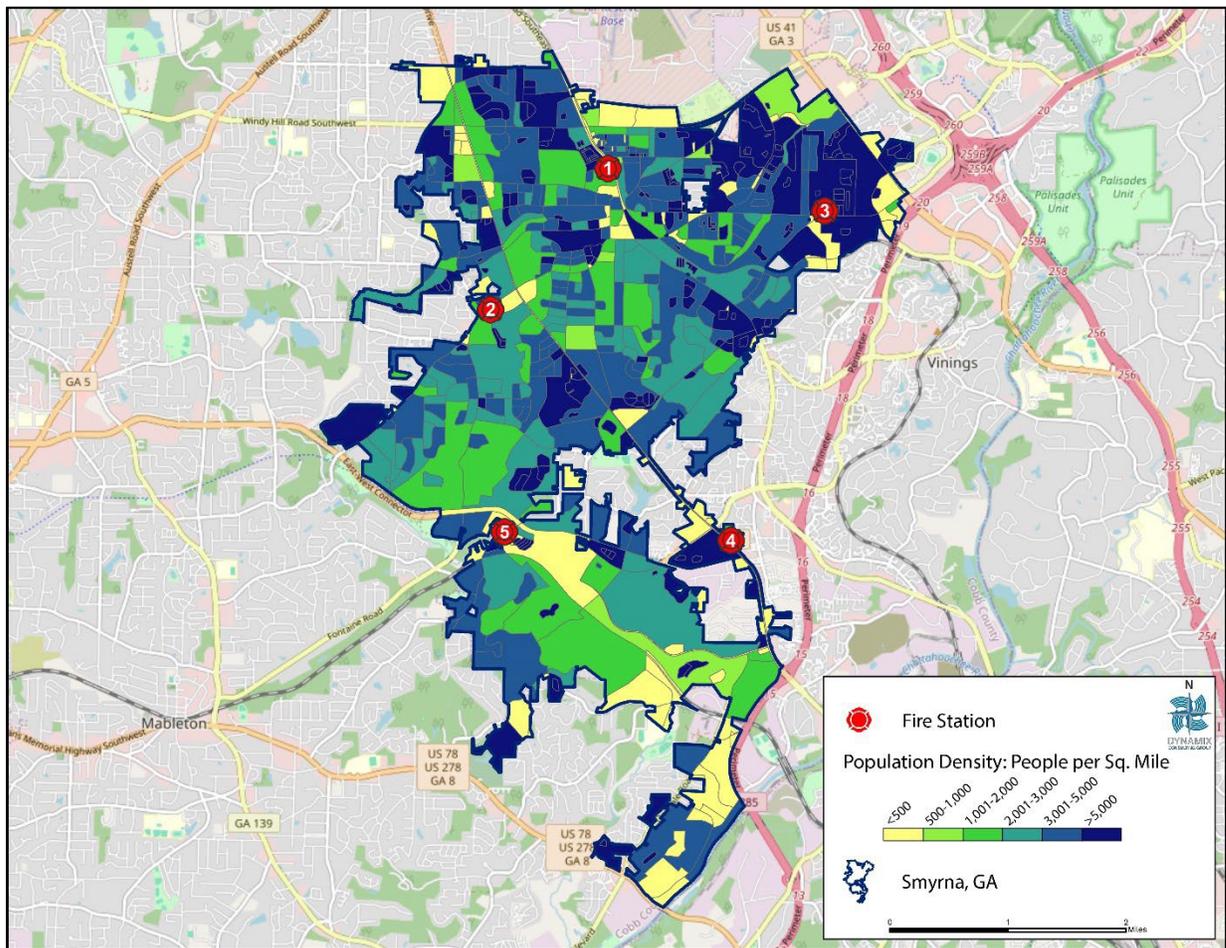
The Smyrna Fire Department serves a population of approximately 55,386 people, with the median age being 36 years old. There are 25,594 households in Smyrna, with the average family size being 2.2 people. Known as the Jonquil City for the thousands of jonquils that flourish in early spring, Smyrna has grown significantly in population over the past ten years. The population has increased from 52,600 in 2013 to 55,380 in 2023 and is expected to reach 59,600 people in 2029. This anticipated growth over the next six years is partly due to Smyrna's proximity to the City of Atlanta and its charming, welcoming, and diverse residential neighborhoods.

Population Density

Understanding the City of Smyrna’s population density is essential to classifying risk. Population density can affect the number and severity of public safety responses. In most municipalities, the more densely inhabited an area, the higher the fire risk and demand for emergency services. Areas of higher fire risk typically require more emergency personnel and specialty apparatus to mitigate emergencies or hazardous conditions effectively and efficiently. Furthermore, areas with higher incident activity require additional response units to ensure a reliable response to the high service area. A neighborhood, district, or ward in Smyrna with a high population density can anticipate a high level of risk that influences staffing and deployment considerations.

Currently, Smyrna has a population density of 3,664 people per square mile compared to Cobb County, which has a population of approximately 760,00 people and a population density of 2,203 per square mile. The population density will most likely continue to grow as the population of Smyrna continues to rise over the next several years.

Population Density



Demographic Features

Education

The City of Smyrna boasts a high school graduation rate of 93%, significantly higher than the State of Georgia graduation rate of 85% and slightly lower than the Cobb County high school graduation rate of 96.5%. Additionally, 55% of the residents of Smyrna hold Bachelor,



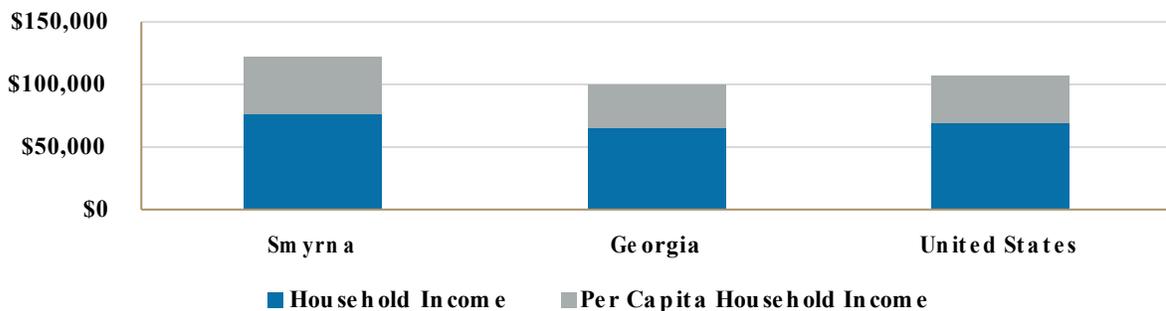
Master, or Doctorate degrees. In contrast, 29% of the population in Georgia has at least a bachelor's degree.

Economic Characteristics

Income

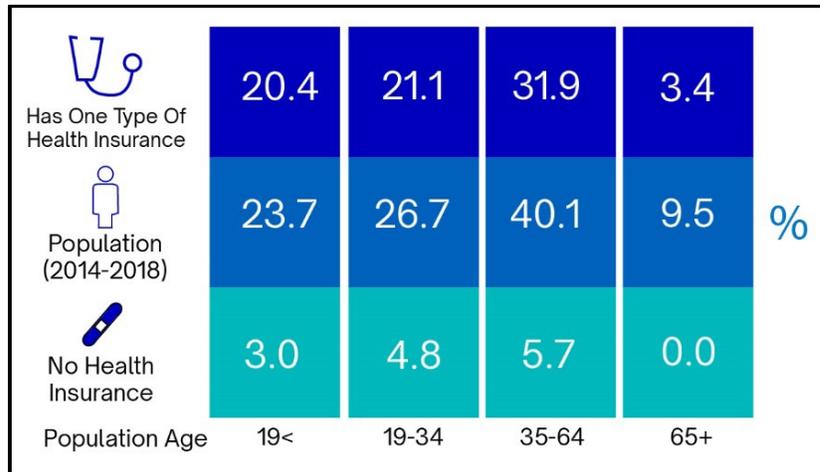
The City of Smyrna has a median household income of \$88,536 and a per capita income of \$55,214. This income level is significantly higher than the State of Georgia's median household income of \$65,030 and per capita income of \$34,516 but only slightly higher than the United States, which has a median household income of \$69,028 and a per capita income of \$37,638.

Smyrna Income Comparison Chart



Health Insurance

Employed citizens have greater access to health insurance and are more likely to participate in, and receive, preventative health care. The population of the City of Smyrna that does not have health insurance is 13.5%, with the highest percentage of those with no insurance being 35-64 year-olds at 5.7%. The benefit of health insurance extends to the frequency of prehospital emergency medical incidents, as citizens with health insurance tend to use their primary care providers instead of emergency facilities when feasible. For the sake of comparison, the State of Georgia has approximately 1.4 million or 13.7% of Georgians who do not have health insurance. This percentage places Georgia third highest for citizens without insurance in the United States, behind Oklahoma and Texas.



Employment Profile

The unemployment rate in the City of Smyrna is 3.3%, slightly higher than the Georgia state average of 3.1% but lower than the national average of 3.4%. Of those employed in Smyrna, 74.5% work in white-collar jobs. White-collar jobs are considered salaried employees whose duties do not require wearing work clothes or protective clothing such as scrubs or structural firefighter gear.

Comparatively, 15.7% of Smyrna citizens work in blue-collar jobs. Blue-collar jobs are typically those of hourly employees who wear work uniforms or protective equipment.

The remaining 9.8% of the Smyrna workforce is employed in the service industry. The service industry is typically made up of individuals who provide people with intangible products or services and complete tasks that are useful to customers.



Individuals with Access and Functional Needs

Various factors can influence the need for emergency services in any community, including Smyrna. People with access and functional conditions may impede or interfere with their ability to access or receive assistance before, during, or after an emergency. The City of Smyrna and the Smyrna Fire Department should consider the following information when planning to provide community risk reduction outreach, education, and emergency response for the population.

Age

The age of the community served impacts the demands for services. Historically, as populations age, their need for emergency services increases. Older adults are more likely than the younger population to have chronic illnesses of functional limitations and physical—sensory, and cognitive disabilities.

Between 2005 and 2015, the United States population 65 years and older increased by 30%, from 36.6 million to 47.8 million. This age group is expected to more than double to 98 million people by 2060. At the time of this report, 11% of the 55,380 people living within Smyrna are 65 and older.

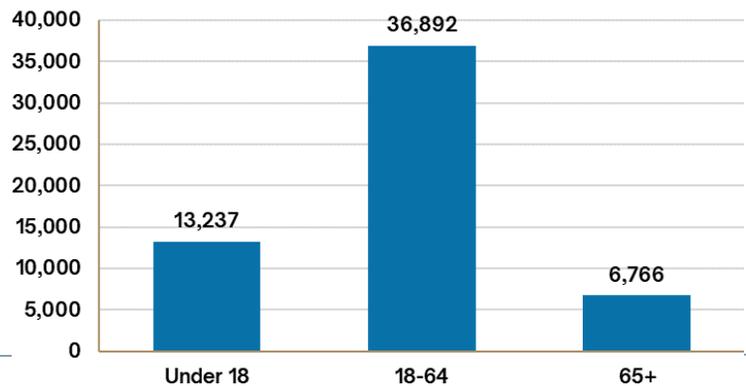
Children

Children are highly vulnerable to emergencies. Emergencies can happen without warning, especially when children separate from their parents or caregivers. Children’s emergencies typically require more resources and various services must be involved after the crisis. First responders are often the first point of contact with children during emergencies that could be considered traumatic and have long-lasting detrimental effects on responders. The population of Smyrna under 18 is 30%, with 7.7% under five years old. This data should be considered by the Smyrna Fire Department when planning community risk reduction methodologies and developing budgets to support outreach.

Older Adults

Nationally, efforts to reduce the number of fire deaths of children under five have been successful. However, unfortunately, there has been very little change in the death toll of older adults. Several key factors contribute to the older adult fire death toll, including the increasing age of the population overall, older adults increasingly living alone, the increase in disabilities with age, and the tendency for older adults to live in older homes. Knowing that over 6,000 citizens in Smyrna are over 65 years of age allows for targeted outreach and education in the community.

Population by Age 2023



Studies from the National Fire Protection Association indicate that older adults are twice as likely to be injured by fire as the rest of the population. Seniors represent 40% of all fire-related deaths in the United States. Factors contributing to this data include mobility, cognitive confusion, and sight and hearing deficiencies.

People with Disabilities



Disabilities can relate to physical mobility and sensory, intellectual, developmental, cognitive, or mental challenges. An individual with a disability, as defined by the Americans with Disabilities Act (ADA), is a person who:

- Has a physical or mental impairment that substantially limits one or more major life activities, or
- Has a history of a physical or mental impairment, or
- Others perceive to have such an impairment

The Federal Emergency Management Agency (FEMA) expanded the definition of disability to include “*people with disabilities and others with access and functional needs.*” This expanded definition of disability includes people who may or may not fall within the meaning of civil rights laws and encompasses cross-disability issues.

Emergencies can be potentially dangerous and deadly for everyone, but persons with disabilities and impairments face additional challenges. Persons with disabilities often have a challenging time identifying or escaping hazardous situations. Currently, the City of Smyrna has 3,765 households with at least one person with a disability.

People with Limited English Proficiency

By itself, speaking a language other than English at home does not directly contribute to a higher risk of emergencies; however, if a person has difficulty speaking English, it may contribute to delays or complications during an emergency. According to the NFPA, language barriers, cultural differences, and inexperience with unfamiliar home technologies mark the challenges of helping newcomers live safely from the threat of fire in the home.

In Smyrna, most of the population speaks English. However, 518 residents report not speaking English, and an additional 1,801 do not speak English well. It is essential to ensure that the residents who cannot communicate well in English receive community risk reduction training and emergency management information in languages they can understand.

Languages Spoken in Smyrna

Language Spoken (ACS)	Age 5-17	18-64	Age 65+	Total
English Only	6,258	29,850	5,106	41,214
Spanish	1,610	4,043	151	5,804
Spanish & English Well	1,547	2,702	96	4,345
Spanish & English Not Well	63	982	23	1,068
Spanish & No English	0	359	31	390
Indo-European	262	2,028	212	2,502
Indo-European & English Well	262	1,794	212	2,268
Indo-European & English Not Well	0	215	10	215
Indo-European & No English	0	19	0	19
Asian-Pacific Island	74	1,126	303	1,503
Asian-Pacific Island & English Well	52	924	276	1,252
Asian-Pacific Island & English Not Well	22	149	23	194
Asian-Pacific Island & No English	0	53	4	57
Other Language	11	485	4	500
Other Language & English Well	11	457	4	472
Other Language & English Not Well	0	28	0	28
Other Language & No English	0	0	0	0

People with Limited Access to Financial Resources



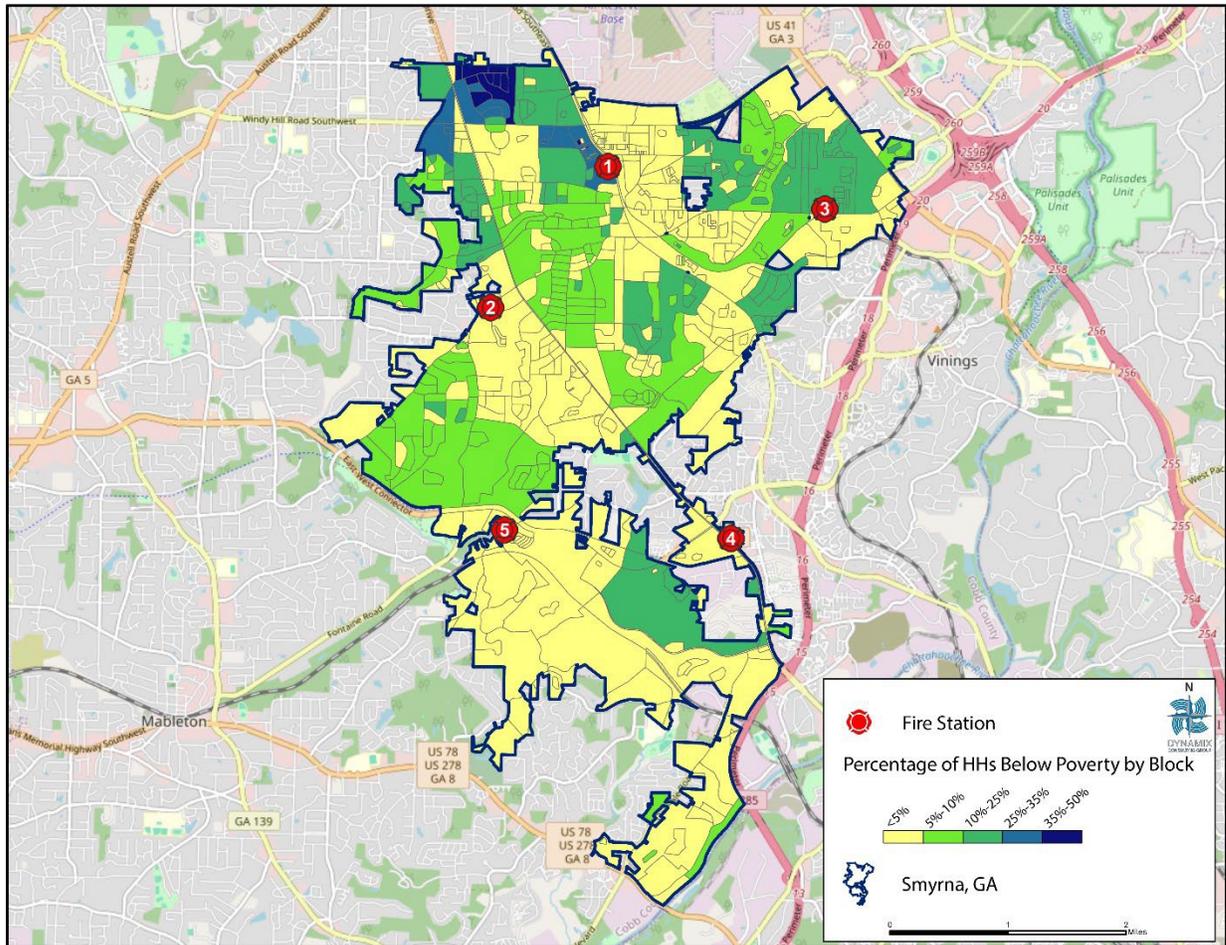
Low-income residents typically utilize government services at higher rates than other economic brackets. Citizens living in poverty experience a greater risk of fire and medical emergencies due to their age and housing condition, inability to pay for routine medical care, lack of medical insurance, and general health conditions.

The lack of dependable transportation is often associated with poverty, leading to increased demand for local emergency services. Smyrna has 2,071 (8%) households below the poverty line as of 2023.

In the October 2018 edition of Health Briefs, a peer-reviewed publication supported by the Robert Wood Johnson Foundation, published “Culture of Health.” The article highlighted a strong link between health and income. The key findings were significant morbidity disparities between the lower and upper-income brackets in the United States, leading to gaps in life expectancy of as much as 15 years for men and 10 years for women. The publication stated, “Poor health also contributes to reduced income, creating a negative feedback loop sometimes referred to as the health-poverty trap.”

Geographically, the highest concentration of households below the poverty level in Smyrna is located on the northern side of the City. Currently, stations one and three have the districts with the highest percentage of households below the poverty line.

Households Below the Poverty Line



Households with Limited Access to Transportation

819
Households Without a Vehicle

“People with limited access to transportation” refers to people who do not have a personal vehicle. Reasons residents may not have access to transportation include age, disability, temporary injury, income, legal restrictions, or access to a private vehicle. This group relies on public transport for work, school, worship, and leisure.

Within Smyrna, 819 households do not have personal vehicles. These citizens depend on public transit and will likely need transportation assistance in an emergency where treatment is required. Considering

the transportation needs of the whole community during widespread evacuations, the transportation system may become overwhelmed quickly. Plans should be developed, and transportation systems should be prepared ahead of time, including considering the accessibility and availability of different types of transportation.

Best practices for transportation assistance include using community-based organizations to identify transportation-dependent populations, conducting regular drills for the evacuation of transportation-dependent people, and equipping a public information officer with answers to transportation and evacuation questions well before an emergency.

History of the Smyrna Fire Department

Major Historical Milestones of the Fire Department

The following historical milestones are referenced from the Smyrna Fire Department 2022 Annual Report.¹⁰



1899

The earliest records referring to a “Fire Brigade” in Smyrna date back to 1889, when the Fire Brigade was credited with battling a cotton warehouse fire in downtown Smyrna. Later, records reveal several attempts to organize a volunteer fire Department with various degrees of success.



1953

In 1953, the city purchased its very first “new” fire truck in anticipation of providing a “regular” or paid fire Department.



1954

The Smyrna Fire Department opened its doors as a career/volunteer Department on May 4th 1954. The new Department responded to its first call on May 5th and held an open house on May 15th to show off the new combination Fire/Police station.

¹⁰ <https://www.smyrnaga.gov/departments/public-safety/fire-department>



1973

The Department would continue operating as a combination Department until August of 1973 when the cadre of volunteers responded to their last call, and the Department transformed into a fully paid organization.



1987

Rescue operations would continue to be performed by the local Civil Defense until it was finally disbanded on May 9th, 1987. The Fire Department then assumed rescue operations and emergency medical response duties.



2022-2023

Today, the Department has grown to five stations that house three engine companies, two truck companies, two rescue units, and one battalion chief vehicle. To date, the Smyrna Fire Department has responded to over 7,000 calls. It provides the

citizens of Smyrna with the highest level of pre-hospital care. In 2022, the Department transitioned Fire Chiefs with Chief Acree's retirement and Chief Marcos's appointment. The City of Smyrna also celebrated its 150th birthday, which showed a collaboration of public safety and City departments. In 2023, a second Deputy Fire Chief position was added and a new ladder truck was purchased to enhance the fire suppression capabilities of the department.

Formation of the City of Smyrna, Georgia

Act/Resolution 90 of 328

ACTS AND RESOLUTIONS OF THE GENERAL ASSEMBLY OF THE STATE OF GEORGIA, PASSED AT ITS SESSION IN JULY AND AUGUST, 1872.

Advertisement

PART II. LOCAL AND PRIVATE LAWS. TITLE I.

CORPORATIONS.

I.—BANKS AND BANKING COMPANIES. DIVISION

II. CITIES AND TOWNS.

1872 Vol. 1 — Page: 262

Sequential Number: 169

Law Number: (No. 169 — O. No. 107.)

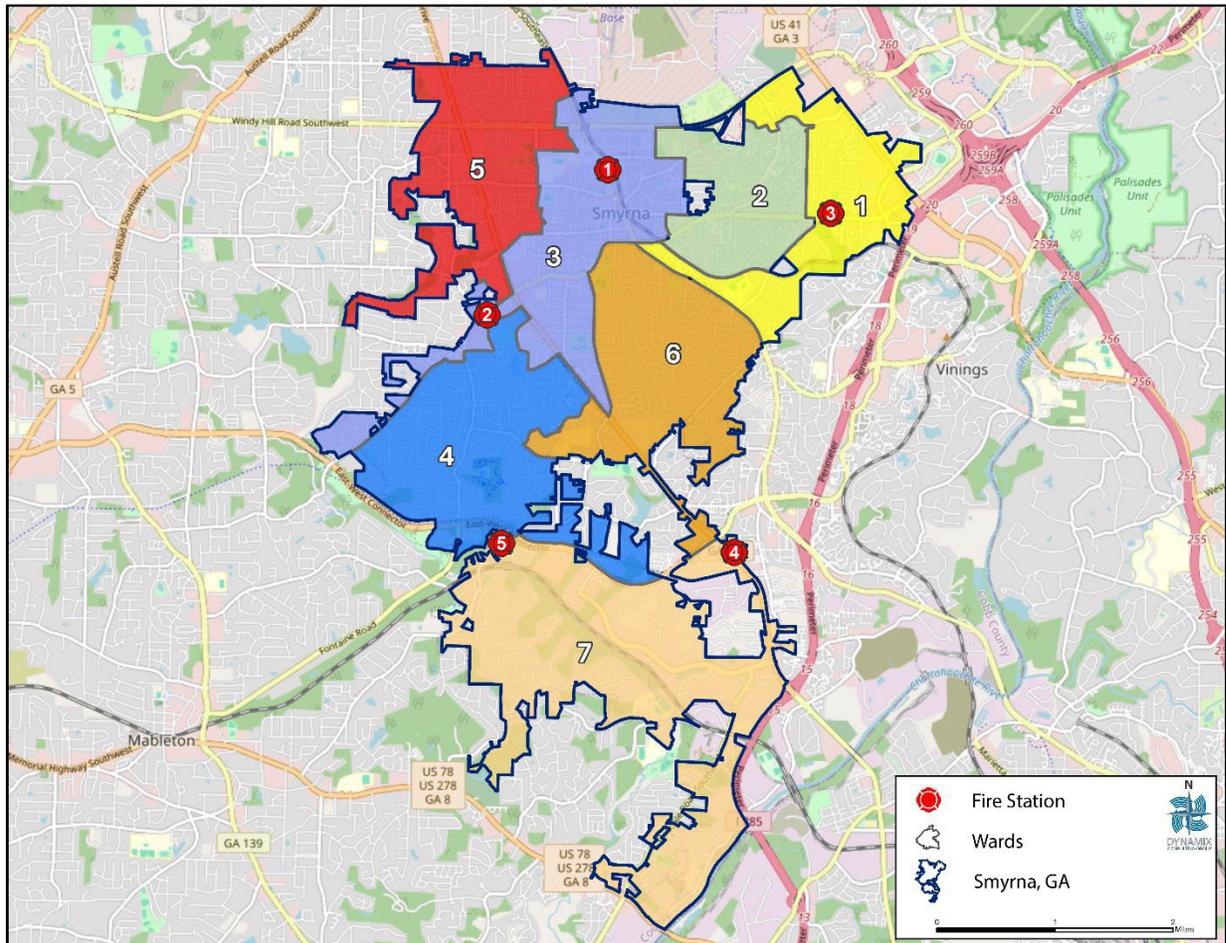
Full Title: An act to incorporate the town of Smyrna, in the county of Cobb; to appoint commissioners for the same; to define the corporate limits of said town; to confer certain powers upon the officers of said corporation, and for other purposes.

<https://cobbcountycourier.com/2019/01/smyrna-incorporation-in-1872/>

Current Legal Boundary of Service Area

The Smyrna Fire Department provides services to residents within the City of Smyrna. As the City's municipal boundaries change over time through annexation and growth, the fire department must keep pace with the changing demands of the community.

City of Smyrna Wards



Current Organization, Divisions, Programs, and Services

The Smyrna Fire Department is approved for 87 positions and is an ISO Class 2 department. The department is led by the Fire Chief and two Deputy Fire Chiefs. The Deputy Fire Chiefs share responsibility for the day to day operation and management of five divisions.



Emergency Services

The Fire Chief is responsible for the overall supervision and management of the fire department. The Deputy Fire Chief of Emergency Services oversees the operations of the Response, Training, and Emergency Management Divisions.

Emergency Management Division

The mission of the Emergency Management Division is to develop plans and procedures that provide an efficient and effective response to the threats facing the City of Smyrna. The Emergency Management Division has various agreements to strengthen the Smyrna Fire Department's response capabilities. The Fire Chief is the EMA Director, and the Deputy Fire Chief of Emergency Services is the Deputy EMA Director. There is one additional full-time employee assigned to the Emergency Management Division, the EMA Specialist who also serves as the Public Information Officer (PIO).

Training Division

The Training Division manages, delivers, and documents the training of the Smyrna Fire Department personnel—a Division Chief, Field Training Officer, and the EMS Director staff the division.

Response Division



The Response Division staffs the apparatus that responds to fire department assistance requests. The division staffs three shifts to ensure round-the-clock service to the community. A Battalion Chief commands each shift. Firefighters work 24-hour shifts. Specific functions of the Response Division include Fire Suppression, Emergency Medical Services, Technical Rescue, Community Outreach, Hazardous Materials, and Risk Reduction.

Administrative Services

The Deputy Chief of Administrative Services oversees the Support Services, Administrative, and Prevention Divisions and serves as the Fire Marshal.

Support Services

The Support Services manages the Smyrna Fire Department's small equipment, fleet maintenance, and facilities.

Prevention Division

The Prevention Division protects life and property from fire, explosion, and other related hazards through plan review, fire and life safety inspections, code enforcement, and fire cause investigations. The Division is staffed by one Assistant Fire Marshal (Captain), three Deputy Fire Marshals (Lieutenant), and one Administrative Assistant.



Fire Stations, Facilities, and Apparatus

Fire Stations and Facilities

The Smyrna Fire Department understands the significance of preventing risks that emergency service providers face. First responders are susceptible to injuries during emergency responses and while working in and around the fire stations they are assigned. Every year several thousand firefighters are injured in fire stations causing employee injury and many hours of lost work time¹¹. Therefore, conducting a thorough risk assessment of all emergency service locations, including stations, offices, and training centers, is necessary. This assessment considers the physical and functional characteristics of the facilities, not just their appearance.

Fire stations are unique structures that typically serve both commercial and residential purposes. However, some parts of these buildings can pose a risk to those working there. Firefighters, in particular, are at a higher risk of developing various cancers than the general population. This is because the modern firefighting environment has changed significantly over the past few decades. In the past, firefighters mainly dealt with fires that involved materials like wood and paper. Today, they face a much more dangerous environment due to the increased use of chemicals in furnishings and building materials. As a result, it is more accurate to view fires as hazardous materials incidents involving fire.

Firefighters face ongoing dangers even after the actual fire is extinguished. The smoke and other vapors contaminating their gear, equipment, and vehicles can cross-contaminate the fire station when brought back by response apparatus. Many agencies have implemented on-scene decontamination procedures with positive results to reduce these exposures. However, physical design changes to the fire station should also be considered to minimize contamination further.

¹¹ NIST. (2109) The Economics of Firefighter Injuries in the United States.

The Smyrna Fire Department operates the following five fire stations and one training facility:

Fire Station	Operational Condition	Age (2023)	Auxiliary Power
Station 1 2620 Atlanta Rd.	Good	24	Yes
Station 2 642 Concord Rd.	Excellent	4	Yes
Station 3 2825 Park Rd.	Good	18	Yes
Station 4 4595 South Cobb	Good	35	Yes
Station 5 750 Cooper Lake	Good	11	Yes
Smyrna Training 2190 Atlanta Rd.	Excellent	1	N/A

Dynamix Consulting Group used the following criteria to evaluate the Smyrna Fire Department's fire stations and training facility:

Excellent	This facility is in excellent condition with no visible structural defects and is clean and well-maintained. The design and layout of the interior are functional and free of any obstacles to the apparatus bays or offices. No significant defect history exists, and the building's design and construction match its intended purpose. Additionally, the building is typically less than 10 years old.
Good	The building's exterior is in excellent condition with only a few or no damages. It has a clean and well-designed layout with minimal signs of wear and tear on the inside. The roof and apparatus apron function well and have no significant cracks or crumbling surfaces. Additionally, there are no visible patches or leaks on the roof. The building was specifically designed and constructed for its intended purpose. It is relatively new, with an age of less than 20 years.
Fair	Upon inspection, the building is in good structural condition with a weathered exterior and some minor to moderate non-structural issues. The interior has normal wear and tear but is well-organized, leading to the apparatus bay or offices. The mechanical systems are functional. However, the building design and construction may need to align with its intended use. While age-related maintenance has increased, there are no significant problems, and the building is typically over 30 years old.
Poor	The building has visible wear and tear signs, including potential structural issues. However, it does not pose an immediate danger to anyone. There are numerous full-thickness cracks in the concrete apron, and the concrete is crumbling in places. The roof has been repaired multiple times and shows evidence of leaking. The building is in poor condition with moderate to significant non-structural issues. There are also signs of advanced deterioration and age-related problems. Its suitability for its intended purpose may be questionable, and the building is usually over 40 years old.

During the walk-through inspections, it was apparent to the Dynamix Consulting Group that the firefighters in the Smyrna Fire Department take immense pride in the upkeep of the fire stations, even considering the age and condition of some buildings. They recognize the significance of maintaining a clean, well-organized, functional workspace. Despite the challenges of older structures, they remain committed to ensuring the stations are in the best possible state. This dedication reflects their professionalism and drive to create an environment that promotes efficiency and boosts morale.

Station 1



Fire Station 1, located at 2620 Atlanta Road in Smyrna, Georgia, is a well-maintained facility in good condition. The structure, constructed in 1999 using brick and mortar (Ordinary Type III), shows some visible structural defects but is well-maintained and clean. The interior layout is thoughtfully designed, allowing for efficient function without unnecessary impediments to the apparatus bays or offices. The station has a history of minimal construction align well with its purpose.

The exterior of Fire Station 1 has a good appearance, with minor defects observed. The building exhibits clean lines and a well-designed workflow. The interior shows the wear and tear of a 24-year-old structure but remains in working condition. The roof and apparatus apron are in good working order, without significant full-thickness cracks or crumbling. The building design and construction continue to meet the building's purpose.

Fire Station 1 is structurally sound, although it displays a weathered appearance and minor to moderate non-structural defects. The interior condition shows normal wear and tear but allows adequate flow to the apparatus bay or offices. The mechanical systems are in working order. While the building's design and construction may not perfectly match its purpose, it remains functional. Some age-related maintenance is evident, but there are no critical defects.

Fire Station 1 has a total maximum staffing capability of 10 personnel and offers various facilities and amenities. These include separate rooms with seven bedrooms and 10 beds, exercise/workout facilities, kitchen facilities, individual lockers and storage, shower facilities, training/meeting rooms, and washer/dryer facilities. The station prioritizes safety and security with sprinklers, smoke detection, decontamination/biohazard disposal measures, and security systems equipped with cameras.

Overall, Fire Station 1 is a well-maintained and functional facility providing essential community services. With its good condition, proper facilities, and a strong team of personnel, the station is equipped to respond to emergencies and ensure the safety and well-being of its residents.

Station 2



Fire Station 2, located at 642 Concord Road in Smyrna, is an exemplary facility with high design, code compliance, and construction standards. The station, constructed between 2018 and 2019, boasts excellent general condition, indicating a well-maintained infrastructure.

The design of Fire Station 2 features a brick-and-mortar construction type, specifically an Ordinary Type III structure. The construction exhibits meticulous quality and attention to detail. Special considerations have been made for ADA compliance, ensuring accessibility for individuals with disabilities.

Station 2 houses the Emergency Management Agency's Emergency Operations Center which is activated during emergencies that affect the city.

The staff facilities at Fire Station 2 are commendable. The station provides separate rooms, including five bedrooms with 10 beds, offering comfortable accommodations for the staff. The presence of exercise/workout facilities, a kitchen for meal preparation, and dedicated shower facilities contribute to the well-being and convenience of the personnel. Additionally, the availability of training/meeting rooms facilitates staff development activities.

Safety measures at Fire Station 2 are of paramount importance. The facility has sprinklers and smoke detection systems, ensuring prompt fire detection and response. The presence of decontamination/biohazard disposal facilities underscores the station's commitment to addressing potential hazardous situations. Security measures, including surveillance cameras, further enhance the safety and security of the staff.

Efficiency is a crucial aspect of Fire Station 2's operations. With two drive-through apparatus bays, the station can accommodate emergency vehicles efficiently. The minimum staffing requirement of three personnel ensures prompt response to emergencies. The square footage of 7,300 provides adequate space to meet operational needs effectively.

In terms of future viability, the long-term success of Fire Station 2 depends on factors such as population growth and infrastructure development in the area. Monitoring these factors will help determine if the station needs to expand its capacity or consider relocation to serve the community's evolving needs effectively.

Fire Station 2 exhibits excellent design, code compliance, and construction. It provides well-equipped staff facilities, prioritizes safety and efficiency, and should continue to focus on improving environmentally friendly practices. Monitoring future viability factors will ensure that the station effectively meets the community's emergency service needs.

Station 3



Fire Station 3, located at 2825 Park Road in Smyrna, Georgia, is a facility that serves the community with dedication, although it is in good condition. Constructed in 2005 using brick and mortar (Ordinary Type III), the structure is still structurally sound. However, it exhibits a weathered appearance and moderate non-structural defects. The interior condition shows wear and tear but remains functional, allowing adequate flow to the station. The station has special considerations, including compliance with ADA regulations and ensuring accessibility for all individuals. With a square footage of 8250, Fire Station 3 offers a range of facilities and amenities to support firefighting personnel.

Fire Station 3 accommodates two apparatus bays, which provide space for the assigned vehicles. Two drive-through bays allow for efficient deployment of the apparatus. The station has separate rooms, including five bedrooms with nine beds. The station also provides exercise/workout facilities, kitchen facilities, individual lockers/storage assigned, shower facilities, training/meeting rooms, and washer/dryer facilities. These amenities support the well-being and functionality of the personnel.

Safety and security measures are in place at Fire Station 3, including sprinklers and smoke detection systems to ensure the early detection and suppression of fires. The station also has decontamination/biohazard disposal measures, ensuring the safe handling of hazardous materials. Security systems, including cameras, maintain a secure environment for personnel and the facilities. The apparatus exhaust system is installed to minimize health risks associated with vehicle exhaust emissions.

Fire Station 3 is in good condition and continues to fulfill its role in serving the community and responding to emergencies. With its facilities, amenities, and safety measures in place, the station provides a functional and secure environment for firefighting personnel. Regular maintenance and attention to the structural and non-structural aspects of the facility will be essential to ensure its longevity and effectiveness in meeting the needs of the community it serves.

Station 4



Fire Station 4, located at 4595 South Cobb Drive in Smyrna, Georgia, is an essential facility that serves the community and is in good condition. Constructed between 1988 and 1993 using brick and mortar (Ordinary Type III with type V construction on the wings) the structure remains structurally sound. However, it shows signs of

wear and tear.

The station has special considerations to ensure compliance with ADA regulations, prioritizing accessibility for all individuals. With 7,400 square feet of space, Fire Station 4 offers various facilities and amenities to support firefighting personnel.

Fire Station 4 features two drive-through apparatus bays, providing space for the assigned vehicles. The station offers separate rooms, including six bedrooms with eight beds. The station has exercise/workout facilities, kitchen facilities, individual lockers/storage assigned, shower facilities, training/meeting rooms, and washer/dryer facilities. These amenities contribute to the functionality and well-being of the personnel.

Safety and security measures are in place at Fire Station 4 to ensure a secure environment. The station is equipped with sprinklers and smoke detection systems, allowing for early detection and suppression of fires. Decontamination/biohazard disposal measures are also available to handle hazardous materials safely. Security systems, including cameras, maintain a secure environment for personnel and the facilities. The station also has an apparatus exhaust system to minimize health risks associated with vehicle exhaust emissions.

Station 4 houses the Support Services Annex which includes office and meeting space for the Administrative Services Division.

The provided facilities and amenities support the firefighting personnel's functionality and well-being. However, to ensure its continued effectiveness and longevity in serving the community, ongoing maintenance, and attention to the structural and non-structural aspects of the facility will be essential. As the oldest building in the department, Fire Station 4 is 35 years old. Modernizing the structure may require significant financial support over the next few years. Local officials may have to decide whether to replace the Fire Station or continue to fund repairs and upgrades.

Station 5



Fire Station 5 offers a wide range of facilities and amenities to support firefighting personnel.

Fire Station 5 features two drive-through apparatus bays, providing ample space for the assigned vehicles. The station offers separate rooms, including five bedrooms with nine beds. The station has exercise/workout facilities, kitchen facilities, individual lockers/storage assigned, shower facilities, training/meeting rooms, and washer/dryer facilities. These amenities contribute to the functionality and well-being of the personnel.

Fire Station 5 places great importance on maintaining a safe and secure environment. The station has implemented sprinklers and smoke detection systems to detect and extinguish fires promptly. Proper protocols are in place for safely disposing of hazardous materials through decontamination and biohazard procedures. Security cameras are utilized to ensure the safety of both personnel and facilities. Furthermore, the station has implemented an exhaust system for vehicles to minimize health risks associated with emissions.

Overall, Fire Station 5 is in good condition and stands ready to serve the community and respond to emergencies. The well-maintained facilities and amenities supported the firefighting personnel's functionality and well-being. Regular maintenance and attention to the structural and non-structural aspects of the facility will be essential to ensure its continued effectiveness and longevity in meeting the needs of the community it serves.

Training Facility



The Smyrna Fire Training Facility, situated at 2190 Atlanta Rd SE in Smyrna, Georgia, is a modern facility designed to meet the training needs of the fire department. Constructed in 2022 using modified shipping containers, the facility boasts an innovative and sustainable design. It adheres to all relevant building codes and regulations, ensuring safety and construction standards compliance.

The design of the training facility prioritizes efficiency and functionality. The modified shipping containers provide a versatile space for various training exercises and simulations. The layout is carefully planned to optimize available square footage, allowing for realistic scenarios and hands-on training.

Safety is a paramount consideration in the design and operation of the training facility. Although the facility lacks traditional smoke or fire detection systems, fire extinguishers and smoke detectors are in place. Trainers and trainees are trained in emergency procedures to ensure a safe training environment. The facility also has security cameras and a security fence to prevent unauthorized access and maintain a secure setting.

The Smyrna Fire Training Facility is modern, code-compliant, and well-constructed. Its design emphasizes functionality, safety measures, efficiency, and environmental consciousness. With its innovative use of modified shipping containers, adherence to regulations, and commitment to sustainability, the facility provides an optimal training environment for firefighters to develop their skills and enhance their preparedness for emergencies.

Dynamix Consulting Group recommends that the Smyrna Fire Department focus on proper upkeep, upgrades, and continuous monitoring of its facilities. This proactive approach will ensure the longevity and effectiveness of the department's infrastructure, allowing firefighters to operate in a safe and efficient environment. Regular maintenance and inspections should be conducted to address any structural, electrical, or mechanical issues promptly. Upgrades and renovations should be considered to align with evolving code compliance, technology advancements, and the department's changing needs. Additionally, implementing a robust facility monitoring system can help identify potential problems early on and enable timely interventions. By prioritizing the care and enhancement of its facilities, the Smyrna Fire Department can continue to provide exceptional service to the community while ensuring the safety and well-being of its personnel.

Apparatus

Emergency Response Apparatus

The purchase and replacement costs of fire apparatus in the City of Smyrna should continue to be a regular item in the Smyrna Capital Improvement Plan. Reliable apparatus is an essential part of the overall mission of the Smyrna Fire Department. The typical life expectancy for a frontline apparatus is 10-15 years, depending on the call volume of the apparatus and the adequacy of the maintenance program employed by the department. Frontline ladder trucks amount of use and maintenance pro



Dynamix Consulting Group finds the Smyrna Fire Department's apparatus in fair to excellent condition, except for the 1999 American LaFrance reserve apparatus, which has been classified as poor due to its age and high mileage. The Smyrna Fire Department suppression fleet ranges in age from a low of 4 to a high of 24 years. By averaging the frontline fleet, including the reserve apparatus, the average age of emergency response fire apparatus is 10 years. Below is the inventory of the Smyrna Fire Department apparatus.

Emergency Response Apparatus

EMERGENCY RESPONSE APPARATUS							
Unit	Apparatus	Manufacturer	Year/Age	Condition	Mileage	Hours	Status
T1	Truck	Pierce	2014	Fair	64,023	6,255	Frontline
R1	Rescue	Ford/Fouts Bros.	2018	Good	29,429		Frontline
E2	Engine	Pierce	2014	Good	67,382	6,411	Frontline
E3	Engine	Pierce	2014	Fair	66,439	6,249	Frontline
T4	Truck	Pierce	2009	Fair	70,420	8,677	Frontline
R4	Rescue	Ford/Fouts Bros.	2016	Excellent	36,288		Frontline
E5	Engine	Pierce	2019	Excellent	32,829	3,153	Frontline
E14	Engine	American LaFrance	1999	Poor	113,495	10,323	Reserve

Supervisor, Command, and Staff Vehicles

Smyrna Fire Department supervisor, command, and staff vehicles are specialized units used by staff to assist with managing emergencies and assisting officers with training or inspection responsibilities. The below-listed vehicles are equipped with various communication tools, including radios, computers, and other essential gear, allowing firefighters and other emergency personnel to stay connected and coordinate response efforts. Additionally, some vehicles listed below perform investigations after fire incidents or complete detailed inspections requiring equipment such as ladders, portable generators, and safety clothing.

Supervisors and command vehicles are essential to the mission of the Smyrna Fire Department because they link Smyrna firefighters on the ground and the centralized management at a severe incident or building inspection program. By replacing aging frontline, administration, training, and prevention vehicles, the Smyrna Fire Department will be able to effectively manage incidents, coordinate responders, and provide adequate fire prevention measures, ultimately saving lives.



Supervisor, Command and Staff Vehicles

SUPERVISOR, COMMAND, & STAFF VEHICLES						
Unit Call Sign	Assigned	Manufacturer	Year	Condition	Mileage	Status
BAT1	Response	Ford	2020	Excellent	19,672	Frontline
600	Fire Chief	Ford	2023	Excellent	22,411	Admin
610	Deputy Chief	Ford	2022	Excellent	6,443	Admin
620	Deputy Chief	Ford	2023	Excellent	24,200	Admin
630	Training Division Chief	Ford	2023	Excellent	1,192	Training
631	EMS Director	Ford	2023	Excellent	1,399	Training
632	Training Division/Reserve Battalion	Ford	2023	Excellent	9,420	Training/Reserve
641	Assistant Fire Marshal	Ford	2021	Excellent	14,785	Prevention
642	Deputy Fire Marshal	Ford	2023	Excellent	13,852	Prevention
643	Deputy Fire Marshal	Ford	2022	Excellent	25,892	Prevention
644	Deputy Fire Marshal	Ford	2022	Excellent	10,871	Prevention
645	Fire Inspector	Ford	2013	Fair	128,756	Prevention/Reserve
650	EMA Specialist	Ford	2018	Good	97,957	Admin/EMA
Support Services	Support Services	Ford	2006	Fair	106,200	Support Services

Apparatus Replacement Methodology

An apparatus replacement plan is a structured approach to systematically replacing aging apparatus in a fire department. Such a plan is necessary to ensure the fire department’s operations remain at peak efficiency, reduce apparatus downtime, and minimize the risk of equipment failure during emergency operations. Overall, an apparatus replacement plan should be an ongoing process to ensure that equipment is maintained and replaced as needed to guarantee that lifesaving operations are not hindered.

Most fire departments in the United States classify apparatus as either frontline or reserve. Typically, frontline apparatus is more reliable and recently built for the organization. The frontline apparatus is the daily workhorse of the department. It is designed to respond to many emergencies and carry a wide array of equipment. Reserve apparatus is kept on the ready to allow for routine maintenance and repair of frontline apparatus. In some cases, reserve apparatus may be required to fill in for long periods when a frontline vehicle has experienced a significant accident or catastrophic equipment failure. Regardless of the reason for the reserve apparatus being placed in service, it must be capable of operating in the same scenarios as the vehicle it is replacing.

To help the leadership in the Smyrna Fire Department decide when to downgrade frontline apparatus, NPFA 1900, Standard for Aircraft Rescue and Firefighting Vehicles, Automotive Fire Apparatus, Wildland Fire Apparatus, and Automotive Ambulances (2024) Annex F recommends:

To maximize firefighter capabilities and minimize risk of injuries, it is important that a fire apparatus be equipped with the latest safety features and operating capabilities. In the last 10 to 15 years, much progress has been made in upgrading functional capabilities and improving the safety features of fire apparatus. Apparatus over 15 years old might include only a few of the safety upgrades required by recent editions of the NFPA fire department apparatus standards or the equivalent Underwriters Laboratories of Canada standards.

It is recommended that apparatus more than 15 years old that have been properly maintained and that are still in serviceable condition be placed in reserve status; be upgraded in accordance with NFPA 1910; and incorporate as many features as possible of the current fire apparatus standard.

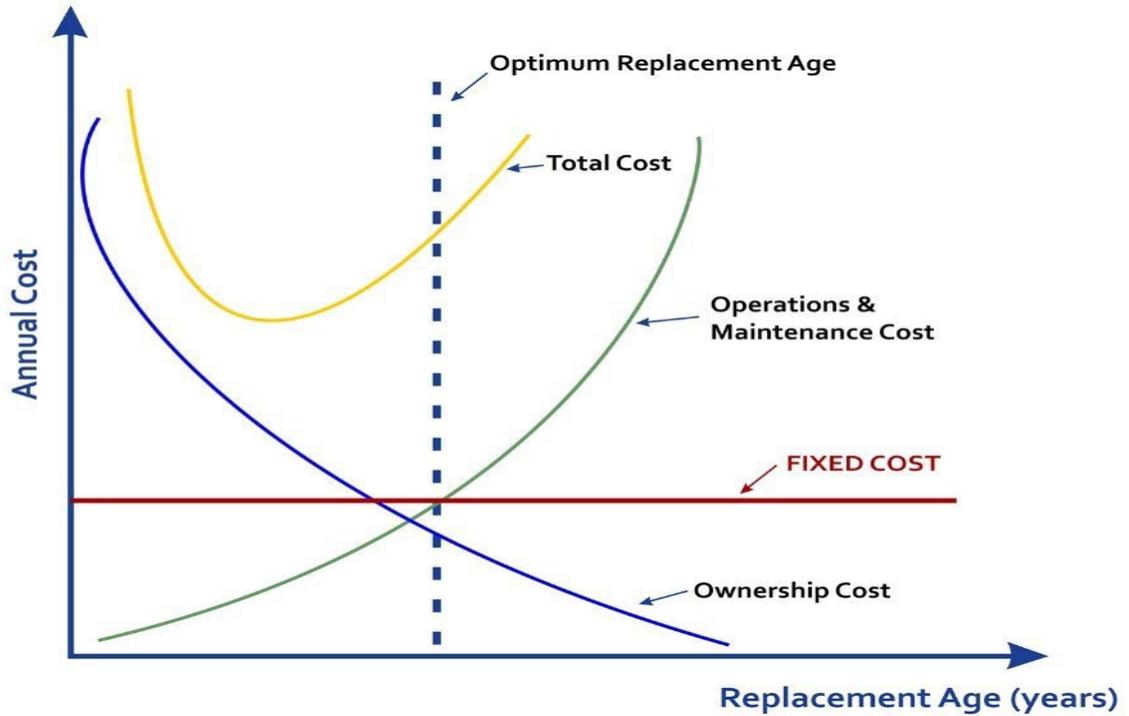
Apparatus that were not manufactured to the applicable NFPA fire apparatus standards or that are over 25 years old should be replaced.

This recommendation from the NFPA is general and suggests more criteria when evaluating the service life of fire apparatus. The service life considerations listed below are from NFPA 1900 (2024):

- Vehicle road mileage
- Engine operating hours
- Replacement parts availability and supply chain reliability
- Quality of work from the original manufacturer
- Design and dependability of the department's preventive maintenance program
- Value of components used during the apparatus build

A conceptual model available to fire service leadership to assist with presenting the need to plan for and purchase apparatus is called the Economic Theory of Vehicle Replacement. The theory demonstrates that as the apparatus ages, the cost of capital declines, and operating costs such as repair and downtime increase. The model can show the optimal time to purchase apparatus when operating costs exceed capital costs. This optimal time may not be a fixed point but a range over time.

Economic Theory of Vehicle Replacement



A second example of how a municipality such as Smyrna can determine when it is time to replace apparatus is the Points Assignment Criteria. This process uses a point system and examines mileage, service records, vehicle condition, and vehicle reliability. The Smyrna Fire Department can use the template below when planning for apparatus replacement.

Points Assignment Criteria

Evaluation Components	Points Assignment Criteria	
Age:	One point for every year of chronological age, based on in-service date.	
Miles/Hours:	One point for every 10,000 miles or 1,000 hours	
Service:	1, 3, or 5 points are assigned based on the service type received (e.g., a pumper would receive a 5 since it is classified as severe duty service).	
Condition:	This category considers body condition, rust interior condition, accident history, and anticipated repairs. The better the condition, the lower the assignment of points.	
Reliability:	Points are assigned as 1, 3, or 5, depending on the frequency a vehicle is in for repair (e.g., a vehicle in the shop two or more times per month on average would receive a 5, while a vehicle in the shop an average of once every three months or less would receive a 1.	
Point Ranges	Condition Rating	Condition Description
Under 18 points	Condition I	Excellent
18–22 points	Condition II	Good
23–27 points	Condition III	Consider Replacement
28 points or higher	Condition IV	Immediate Replacement

The Smyrna Fire Department public safety vehicle replacement schedule is listed on page 84 of the approved Smyrna Georgia, FY 2023 Budget Book. The replacement schedule for fire department vehicles has the Smyrna Fire Department well-postured for purchasing new fire administration and operational vehicles. FY 2023 has \$293,000 to replace six older vehicles as of this writing. FY 2024 and 2026 have funds totaling over \$2,000,000 identified to replace fire apparatus. Depending on when the estimates and timelines were created for replacing the Smyrna apparatus, the department may have to revisit the process as supply chain deficiencies have drastically increased vehicle build times and prices for new apparatus.

Dynamix Consulting Group strongly supports the scheduled replacement of the 1999 American LaFrance reserve apparatus and moving a more reliable apparatus into reserve status. Additionally, it is recommended that the City of Smyrna set aside funds for replacing apparatus as soon as it is placed in service. Additionally, the Smyrna Fire Department may consider the creation of a reserve fund for unforeseen major repairs or additional preventive maintenance to ensure the highest performance and greatest usable life for all apparatus.

Current Description of Levels of Service with Delivery Programs

Fire Suppression

Fire suppression requires proactive measures such as managing vehicles, residential or commercial buildings, and vegetation fires. Fire stations have the resources and staff to maintain fire suppression abilities and preparedness.

The Fire Suppression Rating Scale (FSRS) is utilized by the Insurance Standards Office (ISO) to evaluate a community's effectiveness in combating fires. The ratings range from 1-10 and are based on the National Fire Protection Association's (NFPA) standards, considering elements such as emergency communications, water supply (including fire hydrants), and the community's fire department(s).

In 2021, the Smyrna Fire Department received an ISO 2 PPC rating for fire suppression capabilities. Established agreements ensure the prompt dispatch of the nearest fire suppression units in response to emergencies throughout the City, following the National Fire Protection Association's standards.

The Smyrna Fire Department does not possess a significant wildland or Wildland Urban Interface (WUI) threat within the City and does not possess specialized equipment or training for these incident types.



Station 1

- Truck 1
- Rescue 1
- Battalion 1

Station 2

- Engine 2

Station 3

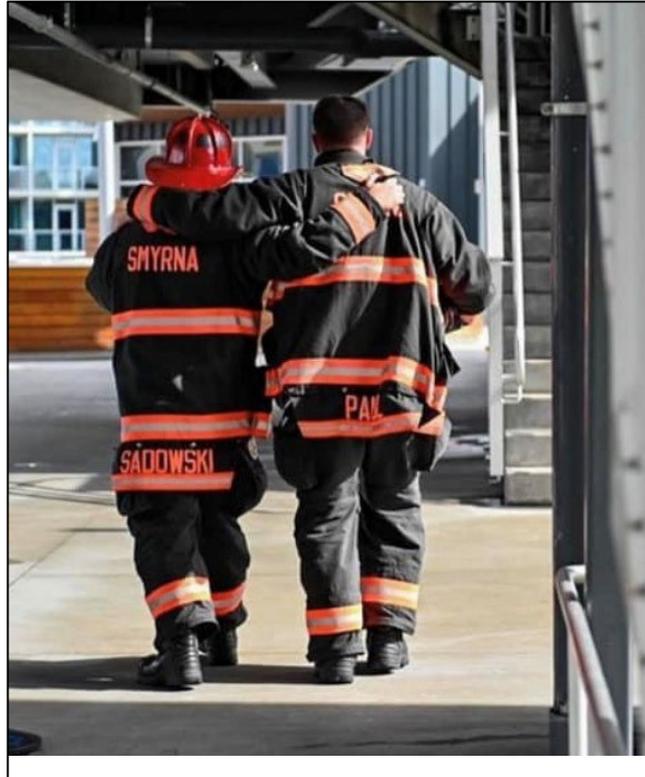
- Engine 3

Station 4

- Truck 4
- Rescue 4

Station 5

- Engine 5



Emergency Medical Services

When someone experiences a medical emergency outside of a hospital or medical facility, emergency medical services can provide timely interventions to help. It's important to note that these services are part of a larger continuum of care. The response times of the Smyrna Fire Department allow this care to begin before an ambulance arrives. Smyrna fire apparatus are staffed with Firefighters who have one of three levels of certification in emergency medical services: Emergency Medical Technicians – who provide Basic Life Support (BLS) and treatment without invasive interventions, and Advanced Emergency Medical Technicians or Paramedics who provide Advanced Life Support (ALS), including advanced treatment, invasive interventions, and drug administration. The City of Smyrna has seven ALS non-transport units staffed by highly qualified personnel. These seven units are supervised by a Battalion Chief who is also a paramedic. Within three years of being hired, all fire department personnel must be certified as an AEMT, while most are licensed as paramedics. The final phase of pre-hospital care is transport to an appropriate hospital. Metro Atlanta Ambulance Service is the primary transport agency for the City and its surrounding areas, and Puckett EMS is the secondary provider.

Station 1

- ALS Engine, ALS Rescue

Station 2

- ALS Engine

Station 3

- ALS Engine

Station 4

- ALS Aerial; ALS Rescue

Station 5

- ALS Engine

Technical Rescue

Technical rescue comprises multiple disciplines of specialized training that enable rescuers to perform operations outside the scope of typical fire rescue departments. Smyrna Fire Department possesses limited technical rescue capabilities and is supplemented with mutual aid resources. Typically, technical rescue comprises five to six specialties requiring 80 hours or more of specific training and competency demonstrations. The most common technical rescue specialties are:

High Angle Rescue

Completing this discipline allows rescuers to work high above the ground or at inclines exceeding 45 degrees to rescue victims and treat patients. Crews use ropes, harnesses, and other climbing equipment certified for life safety operations. Examples of high-angle rescue include saving window-washing crews on high-rise buildings or hikers falling down steep embankments or cliffsides.

Confined Space Rescue

A confined space is any space with a limited entry point that limits prolonged or continuous occupancy. Similar to high-angle rescue, rescuers use ropes, harnesses, and other climbing gear to rescue those trapped or incapacitated within a confined space and equipment to ventilate the area and test for dangerous or lethal gases. An example of a confined space rescue includes rescuing workers overcome by an unknown gas within underground utility corridors.

Vehicle and Machinery Rescue

Vehicle and machinery rescue (VMR) involves powering down and locking out various types of machinery, mainly industrial or heavy equipment, locking out the power, and then disassembling the equipment to detangle the victim while providing patient care. This specialty can also apply to intense Motor vehicle Collisions (MVC) involving large vehicles such as buses or tractor-trailers.

Trench Rescue

A trench rescue occurs when the earth, mud, or other objects collapse or partially collapse onto victims. The immediate emergency in these situations is the crushing effect of the material on the victim and their inability to breathe or circulate blood adequately. Using specialized equipment, trench rescue teams stabilize the immediate area, remove the material to access the patient, and finally remove and treat the patient.

Swift Water or Surface Water Rescue

Both swift water and surface water rescue involve rescuing injured or trapped victims in the water. While swift water rescue, as its name implies, involves moving water such as rivers or fast-moving flood waters, surface water rescue often involves victims of boating accidents or other traumatic injuries that prevent them from rescuing themselves.

Structural Collapse Rescue

Structural collapse is typically the final technical rescue course as it requires the greatest number of hours to complete while representing the culmination of many skills developed in other training competencies. Examples of structural collapse rescue are the teams of rescuers after Hurricane Katrina in New Orleans who entered partially collapsed homes filled with flood waters searching for victims and the Surfside Condominium Collapse near Miami, Florida, which included the rescue of four victims from the rubble, 35 rescued from the remaining fragments of the tower, and 11 others injured, with a total of 98 fatalities.

Hazardous Materials

Hazardous materials refer to substances with some level of health or environmental risk, whether in liquid, solid, or gaseous form. These materials encompass a wide range of potentially harmful agents, including but not limited to radiological, biological, chemical, nuclear, and other toxic substances. Interestingly, many everyday household items contain hazardous materials and can exist in significant quantities within communities, highlighting the importance of proper handling and management to ensure the safety and well-being of individuals and the environment.

Irrespective of an agency's specialized training, responding to hazardous materials incidents is integral to emergency services. In the City of Smyrna, the Smyrna Fire Department is responsible for providing the primary response to hazardous materials incidents. Therefore, various measures are in place to ensure a prompt and effective response to this type of emergency.

The first response to hazardous materials is essential to all frontline suppression equipment. Each suppression apparatus has specialized equipment for proper detection, including four-gas monitors and thermal imaging cameras (TIC). These tools provide accurate and timely information, allowing firefighters to respond quickly and effectively to any situation. By utilizing these advanced technologies, first responders can help minimize the risks associated with hazardous materials and protect themselves and the public. Cobb County Fire & Emergency Services assists with hazardous materials incidents.

Community Risk Reduction

Organizations must take a comprehensive approach when evaluating risk, including individual property vulnerabilities and the broader community. The Smyrna Fire Department understands this and recognizes the importance of conducting all hazard risk assessments to ensure the community's safety.

To assess the risk to the community, it is essential to understand the current physical

and incident risks and the nature and magnitude of all hazards and risks within the jurisdiction. The department has considered this and reviewed the department's risk categorization and deployment impact. Fire prevention and operations consider various factors, such as cultural, economic, historical, environmental, and operational characteristics, to ensure a practical evaluation.

The community needs to be aware of hazards, which are causes of incidents that can be measured and identified. Smyrna Fire Department has classified these causes into four categories: human actions or experiences, hazardous materials, mechanical hazards or dangers, and natural hazards. The department regularly evaluates each category's potential threat, consequence, and event impact to develop strategies for reducing identified risks. This helps to ensure the safety of everyone in the community.



Fire Prevention

The Smyrna Fire Department is responsible for ensuring safety and compliance with fire and life safety regulations in Smyrna. They enforce the latest standards adopted by the Safety Fire Commissioner and published in the Georgia Fire Code, the Georgia Department of Community Affairs, or the City. Following these guidelines is vital to keep everyone safe and prevent accidents.

The Fire Prevention Division conducts nearly one thousand permit and fire-related inspections every year to ensure the safety of commercial and residential properties. Occupancies inspected are identified by risk, hazard, occupancy, frequency, and the associated state law and local code or ordinance (O.C.G.A. § 25-2-12; O.C.G.A. §25-2- 13; Ga. Comp. R. & Regs. r. 110-11-1-.29; Ga. Comp. R. & Regs. r. 120-3-3-.01 et seq.).

The following table shows the number of inspections Smyrna Fire Prevention Personnel completed during the last three years.

Inspection Type	2020	2021	2022	2023
Construction Inspections (all types)	967	837	1069	1047
Existing Business/Occupancy Inspections	185	168	432	473
Business License Inspections	229	234	249	248
Plans Review	95	7	376	466
Total Inspections	1476	1246	2126	2234

Smyrna Fire Prevention personnel work with the Smyrna Building Department to facilitate plan review. This process ensures accurate code compliance for all new construction and infrastructure in the City. Inspections and approvals are required on every commercial and fire suppression system permit issued in the City. Field inspectors verify details such as hydrant locations, access, and street widths.

Combining the efforts of the Fire Prevention Division with annual pre-planning allows the department to document and formally appraise at least annually to determine the impacts of the community risk reduction programs in place. The Smyrna Fire Department should produce a quarterly or annual report to assess the impacts and associated cost savings related to Community Risk Reduction efforts and establish loss performance goals to determine if performance gaps exist.

Fire Investigation Origin and Cause

The Smyrna Fire Department conducts fire investigations within its municipal boundaries. It has implemented a comprehensive policy for responding to such incidents. The Fire Chief, the ultimate authority in these matters, has tasked the Fire Marshal with managing and coordinating the initial investigation of any fire-related incident. This allows for a structured and efficient approach to gathering information and determining the cause of the fire, which is crucial for preventing future incidents and ensuring the community's safety.

Once the incident is stabilized, the first arriving company officer is responsible for conducting a preliminary origin and cause investigation. In the event that the cause of the fire is suspected to be suspicious, the Incident Commander will proceed to contact the on-call investigator for further investigation and analysis.

The Smyrna Fire Department should produce a quarterly or annual report to assess the impacts and associated cost savings related to Fire Investigation / Origin and Cause efforts and establish loss performance goals to determine if performance gaps exist.

Public Education



The Smyrna Fire Department provides emergency services and greatly emphasizes public education. The department conducts extensive training on cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) under the guidelines of the American Heart Association. The fire department has identified a significant elderly population in the City. Thus, they regularly organize and conduct CPR/AED courses for the community.

Each year, the Smyrna Fire Department takes the initiative to coordinate with daycares and schools to impart valuable fire safety education to children and young individuals in the community. These programs are designed to convey positive messages that promote safe practices, ensuring the well-being of the youth in the area.



The Smyrna Fire Department should produce a quarterly or annual report to assess the impacts and associated cost savings related to Public Fire Education efforts and tie performance goals to emergency response and performance to determine if performance gaps exist.

Emergency Management

The Smyrna Fire Department's Emergency Management Agency (SEMA) tirelessly strives to enhance the fundamental tenets of prevention, preparedness, mitigation, and recovery from natural and manmade disasters. SEMA collaborates closely with all city departments, employees, and bus services to ensure that emergency management protocols are efficiently implemented and executed. A unique detail regarding Smyrna's EMA is that it is one of only two cities in Georgia with an Emergency management Agency recognized by the Georgia Emergency Management Agency. All other EMAs in Georgia are run by the county.

SEMA is dedicated to promoting safety and minimizing risk for the community. One of its primary objectives is to help stakeholders identify and prevent potential hazards through education and support. In addition, SEMA provides comprehensive disaster response training for personnel, equipping them with the skills and knowledge necessary to respond effectively in emergencies. SEMA also ensures timely and informative alerts regarding any imminent hazardous events to keep the public informed and prepared. Furthermore, SEMA is responsible for planning and executing development initiatives and collecting and analyzing data to inform its decision-making processes. This information is used to facilitate programs such as Smyrna Safe Business and conduct event planning for events such as Smyrna's 150th Birthday celebration.

Community Emergency Response Teams

The Federal Emergency Management Agency started Community Emergency Response Teams (CERT) to help promote and teach disaster preparedness to citizens. The Smyrna Fire Department organizes the CERT Team in the City of Smyrna. CERT Members participate in four-week classes to learn first aid, triage, fire safety, and disaster organization.



Severe Weather Outdoor Warning Signals/Sirens

The Smyrna Emergency Management Division oversees the city’s Severe Weather Outdoor Warning Signals / Sirens. The system has 10 strategically located sirens to be heard anywhere in the city. It is monitored and activated through the county-wide digital radio system. Reasons for activating the system include but are not limited to, tornado and severe thunderstorm watches or warnings.

Drone Program

The Emergency Management Division coordinates the Smyrna Fire Department Drone Program. Deploying unmanned aerial vehicles (drones) can yield many benefits for emergency responders. For example, as units arrive onscene, drones can provide a comprehensive picture of the initial incident. This information helps commanders determine the size of the incident, its severity, what initial resources are needed, and the overall response objectives.



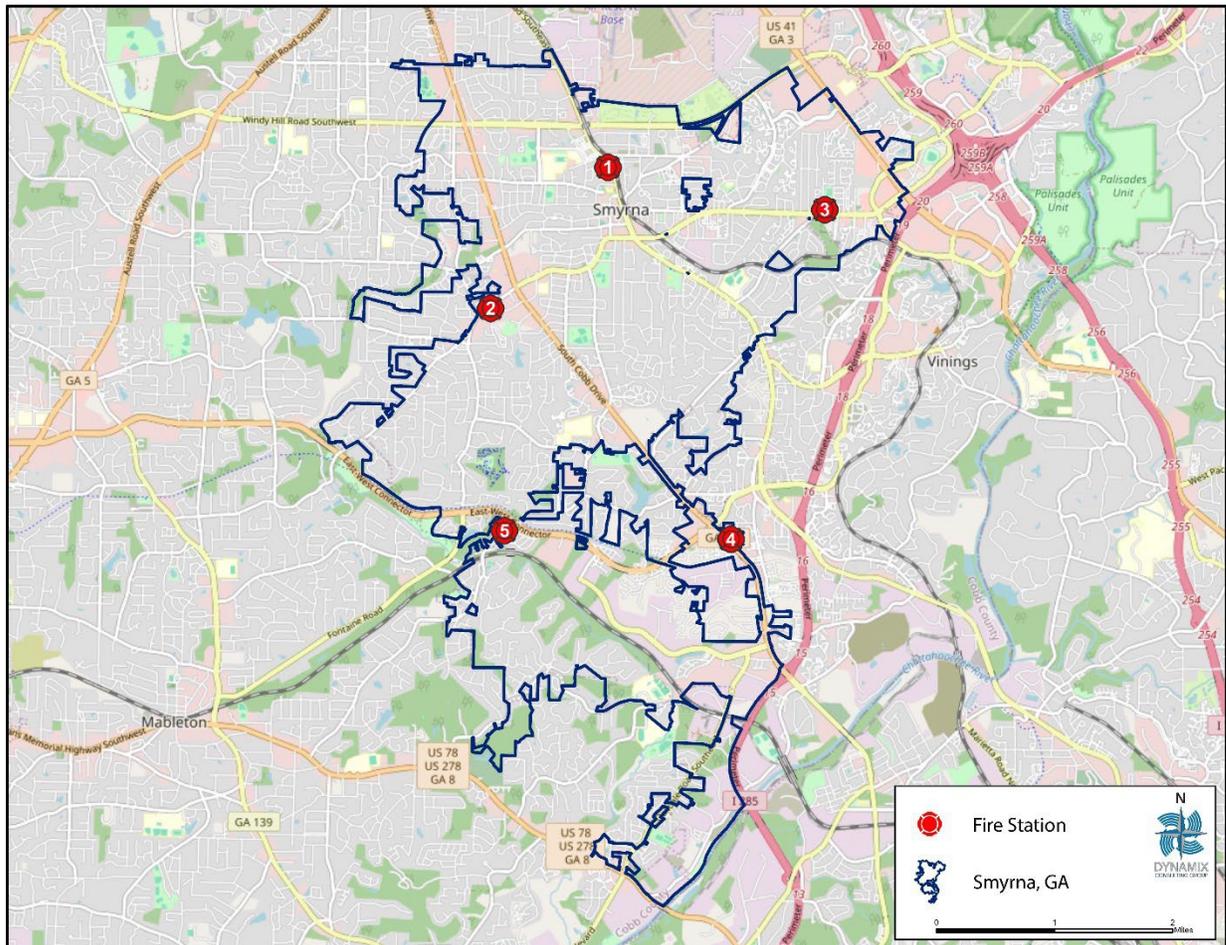
Current Deployment and Coverage Areas

Points of Service Delivery

The City of Smyrna provides fire suppression, emergency medical, and rescue response within a 16 square mile area from the following five fire stations:

Fire Station
Station 1 2620 Atlanta Rd.
Station 2 642 Concord Rd.
Station 3 2825 Park Rd.
Station 4 4595 South Cobb
Station 5 750 Cooper Lake

The fire stations are distributed throughout the city as follows:
Smyrna Fire Department Station Locations



Minimum Deployment Resources

The Smyrna Fire Department staffs employees with 72 operational personnel supervised by the Division Chief of Operations with a Battalion Chief leading each shift. Each of the 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 with three total), one station captain (three total), four lieutenants (12 total), six engineers (apparatus driver/operators, 18 total), and 12 firefighters (36 total). The total daily staffing is 24 firefighters on duty with a minimum staffing of 20 firefighters to accommodate sick and leave time without incurring overtime when possible. Each non-transport medical unit is staffed with two personnel, and each fire apparatus (engine or aerial) is staffed with at least three personnel. To meet operational needs, the following minimum staffing guidelines should be followed:



- Engine companies should be comprised of a minimum of one Company Officer, one qualified driver, and one firefighter. A minimum of one Paramedic per engine is required.
- Trucks or aerial units should be comprised of a minimum of one Company Officer, one qualified driver, and one firefighter. A minimum of one Paramedic per truck is required.
- Rescues should be staffed with two firefighters. A minimum of one Advanced EMT per rescue is required.
- Each station will have a minimum of one paramedic assigned to it each 24-hour shift.

Station 1

The assigned apparatus/vehicles at Station 1 include Truck 1, with a minimum staffing requirement of 3 personnel, Rescue 1, with a minimum staffing requirement of 2 personnel; and Battalion 1, with a minimum staffing requirement of 1 personnel. The total minimum station staffing is six personnel.

Station 2

The assigned apparatus at Station 2 is Engine 2, with a minimum staffing requirement of three personnel. The total minimum station staffing is three personnel.

Station 3

The assigned apparatus at Station 3 is Engine 3, with a minimum staffing requirement of three personnel. The total minimum station staffing is three personnel.

Station 4

The assigned apparatus/vehicles at Station 4 include Truck 4, with a minimum staffing requirement of 3 personnel, and Rescue 4, with a minimum staffing requirement of 2 personnel. The total minimum station staffing is five personnel.

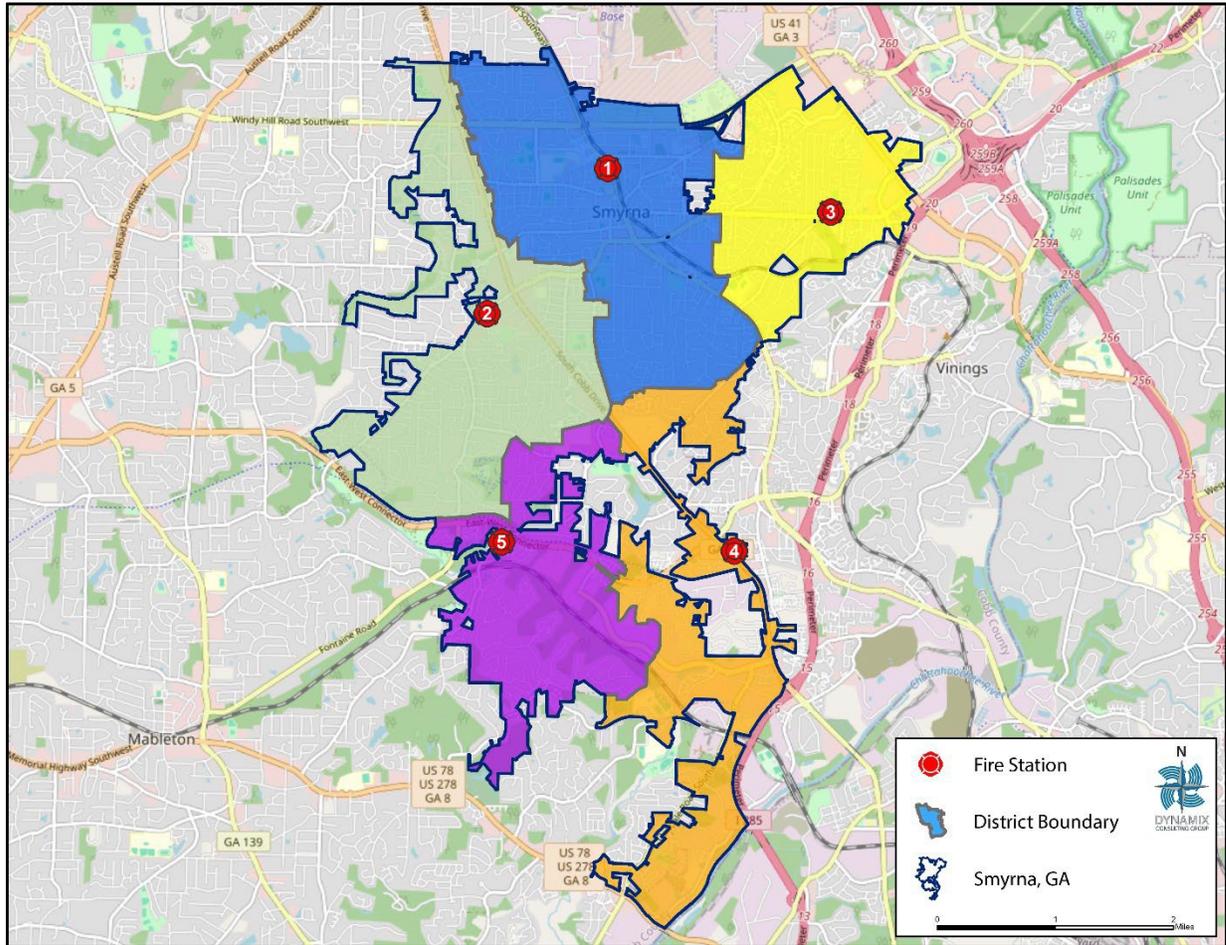
Station 5

The assigned apparatus at Station 5 includes Engine 5, with a minimum staffing requirement of three personnel. The minimum station staffing is three personnel.

Response Areas

Fire station response areas were developed to provide a closest unit response to all areas of the City of Smyrna. As Smyrna continues to develop and densify, these response zones should be reviewed to ensure that a closest unit response is still achievable to all areas of the City.

Station Response Zones

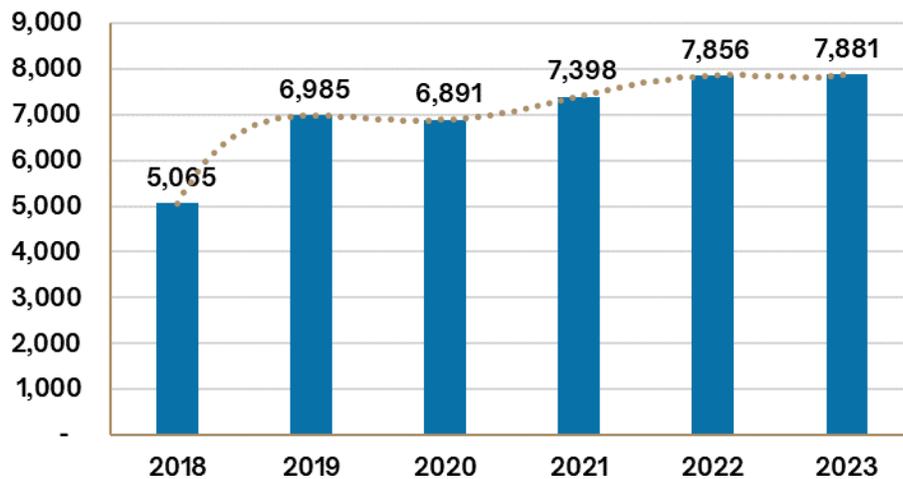


Summary of Community Response History

Calls for service to Smyrna Fire Department have increased annually since 2020 by 14.0% from 2020 through 2022 and an average of 6.8% per year; however, call volume remained steady from 2022 through 2023. Rescue calls represented 63.1% of the total annual call volume, fire represented 1.5%, and all other call types totaled 35.8%.

Response by Incident Type 2023	
Fire	114
Rescue	4,957
Miscellaneous	2,085
False Alarm	725
Total	7,881

Annual Incident Totals



Community Priorities, Expectations, and Performance Goals

Purpose Statement

The purpose statement for the Smyrna Fire Department is as follows:

We are an “all hazards” organization with a focus on community risk reduction and an exceptional readiness to respond to emergencies. We save lives. We protect property. We improve the quality of life in our community.

Vision

The vision statement for the Smyrna Fire Department is as follows:

To be recognized as a leader in community risk reduction, excel at developing our people, and build enduring partnerships.

Values

The Smyrna Fire Department Values are as follows:

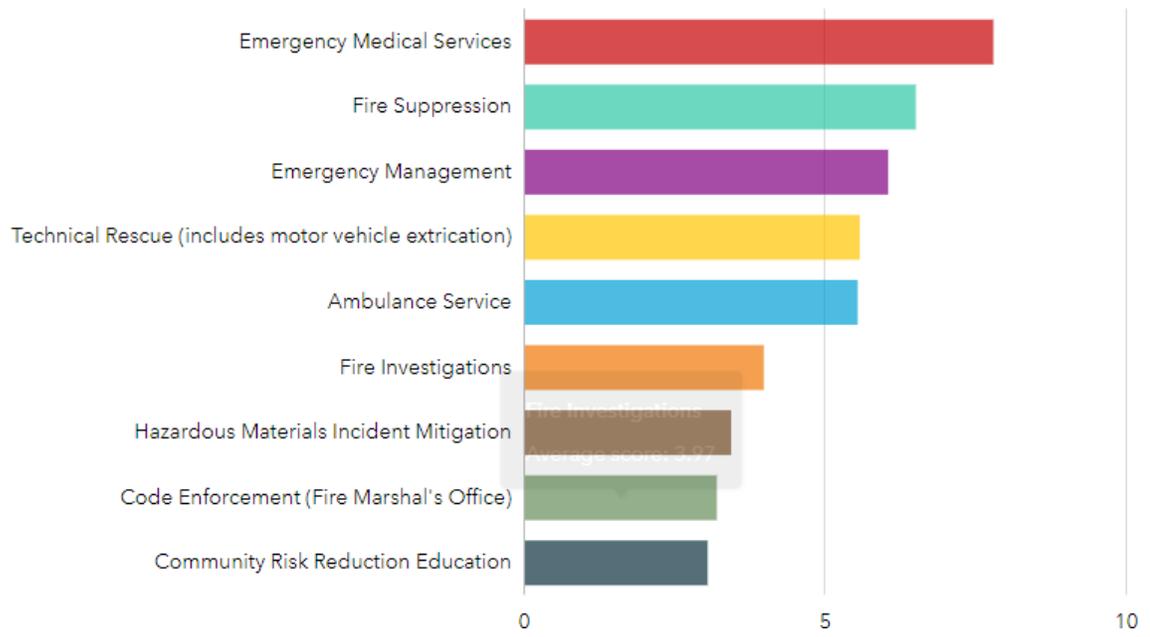
- *Integrity*
- *Service*
- *Accountability*
- *Community*
- *Commitment*

Stakeholder Priorities

Community members and Fire Department employees were surveyed online between May and July 2023. Information from both surveys was used to establish priorities and develop recommendations for the future delivery of Fire and Emergency Services by the Smyrna Fire Department.

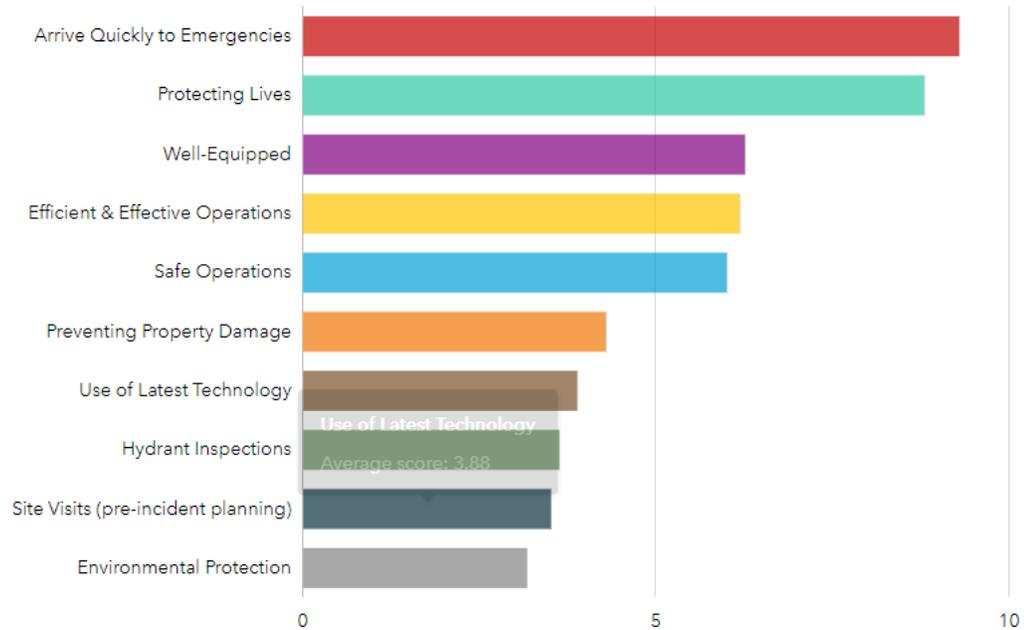
Community Member Priorities

Community members were asked to prioritize nine fire department programs from most to least important. Emergency Medical Service was the top priority (7.78), followed by Fire Suppression (6.49). The community members rated Code Enforcement (3.19) and Community Risk Education (3.03) as the lowest priorities.



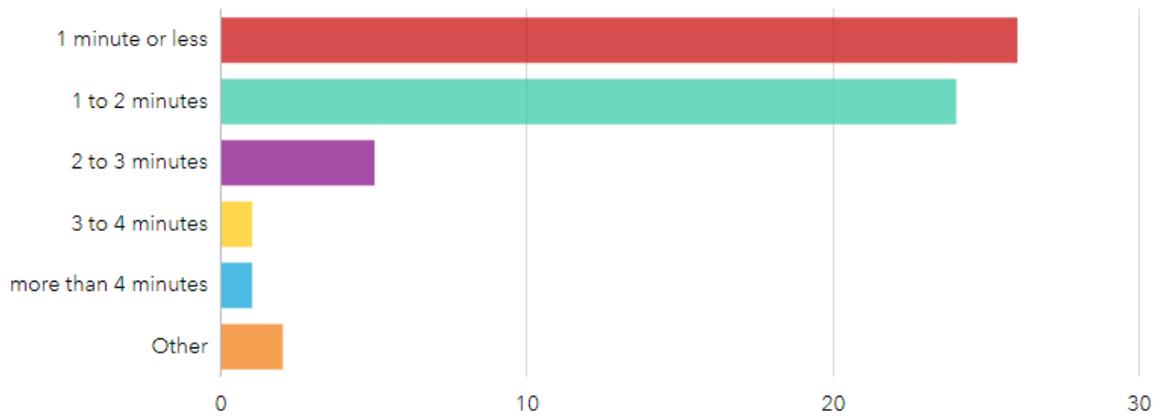
Rank	Answers	1	2	3	4	5	6	7	Average score
1	Emergency Medical Services	40.68% 24	25.42% 15	25.42% 15	0% 0	1.69% 1	3.39% 2	1.69% 1	7.78
2	Fire Suppression	23.73% 14	13.56% 8	10.17% 6	25.42% 15	11.86% 7	6.78% 4	1.69% 1	6.49
3	Emergency Management	18.64% 11	10.17% 6	18.64% 11	11.86% 7	13.56% 8	13.56% 8	6.78% 4	6.03
4	Technical Rescue (includes motor vehicle extrication)	3.39% 2	20.34% 12	16.95% 10	18.64% 11	11.86% 7	5.08% 3	10.17% 6	5.56
5	Ambulance Service	6.78% 4	20.34% 12	16.95% 10	15.25% 9	15.25% 9	1.69% 1	3.39% 2	5.53
6	Fire Investigations	0% 0	6.78% 4	5.08% 3	3.39% 2	15.25% 9	30.51% 18	16.95% 10	3.97
7	Hazardous Materials Incident Mitigation	0% 0	0% 0	3.39% 2	10.17% 6	13.56% 8	22.03% 13	16.95% 10	3.42
8	Code Enforcement (Fire Marshal's Office)	3.39% 2	3.39% 2	1.69% 1	6.78% 4	3.39% 2	13.56% 8	23.73% 14	3.19
9	Community Risk Reduction Education	3.39% 2	0% 0	1.69% 1	8.47% 5	13.56% 8	3.39% 2	18.64% 11	3.03

Clearly comprehending community expectations of their fire and rescue service organization is paramount in establishing a comprehensive and forward-thinking approach. With this knowledge, adjusting or reinforcing internal priorities may be necessary to meet the community's needs. Listed below are the primary expectations of the community stakeholders. Their top two primary expectations were that the fire department arrive quickly to emergencies (9.29) and protect lives (8.80). The community members rated site visits / pre-incident planning (3.51) and environmental protection (3.17) as the lowest priorities.



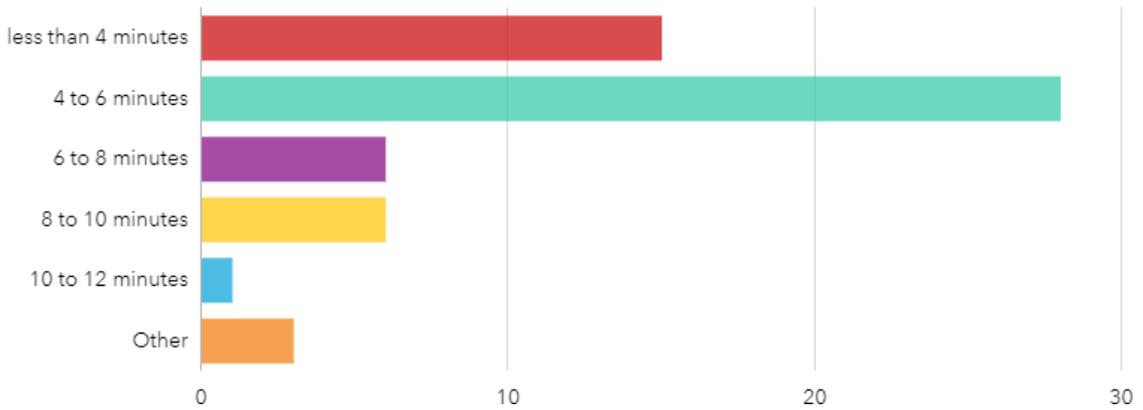
Rank	Answers	1	2	3	4	5	6	7	Average score
1	Arrive Quickly to Emergencies	54.24% 32	35.59% 21	5.08% 3	1.69% 1	1.69% 1	0% 0	0% 0	9.29
2	Protecting Lives	35.59% 21	37.29% 22	13.56% 8	3.39% 2	8.47% 5	0% 0	0% 0	8.80
3	Well-Equipped	5.08% 3	6.78% 4	13.56% 8	30.51% 18	10.17% 6	16.95% 10	6.78% 4	6.25
4	Efficient & Effective Operations	1.69% 1	10.17% 6	23.73% 14	20.34% 12	11.86% 7	10.17% 6	1.69% 1	6.19
5	Safe Operations	0% 0	5.08% 3	25.42% 15	16.95% 10	18.64% 11	10.17% 6	10.17% 6	6.00
6	Preventing Property Damage	1.69% 1	0% 0	8.47% 5	8.47% 5	16.95% 10	11.86% 7	11.86% 7	4.29
7	Use of Latest Technology	1.69% 1	0% 0	6.78% 4	6.78% 4	6.78% 4	13.56% 8	22.03% 13	3.88
8	Hydrant Inspections	0% 0	0% 0	0% 0	6.78% 4	3.39% 2	18.64% 11	23.73% 14	3.63
9	Site Visits (pre-incident planning)	0% 0	5.08% 3	3.39% 2	3.39% 2	6.78% 4	10.17% 6	15.25% 9	3.51
10	Environmental Protection	0% 0	0% 0	0% 0	1.69% 1	15.25% 9	8.47% 5	8.47% 5	3.17

When members of the community were asked, “If you dial 911, how long should it take to gather information to dispatch help?”, to two most common answers were selected “1 minute or less” (44.07%) and “1 to 2 minutes” (40.68%).



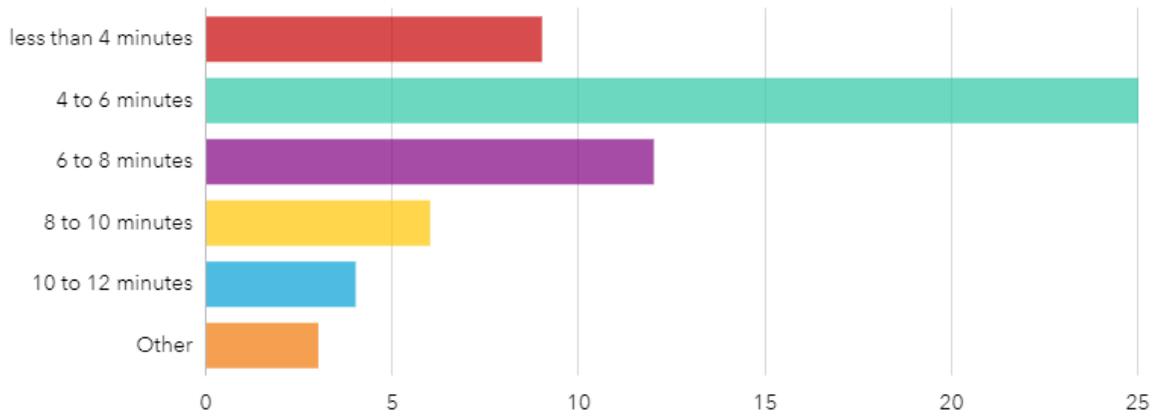
Answers	Count	Percentage
1 minute or less	26	44.07%
1 to 2 minutes	24	40.68%
2 to 3 minutes	5	8.47%
3 to 4 minutes	1	1.69%
more than 4 minutes	1	1.69%
Other	2	3.39%

When asked, “After a unit is dispatched, how long should it take for it to arrive?” the two most common answers were “4 to 6 minutes” (47.46%) and “less than 4 minutes” (25.42%).



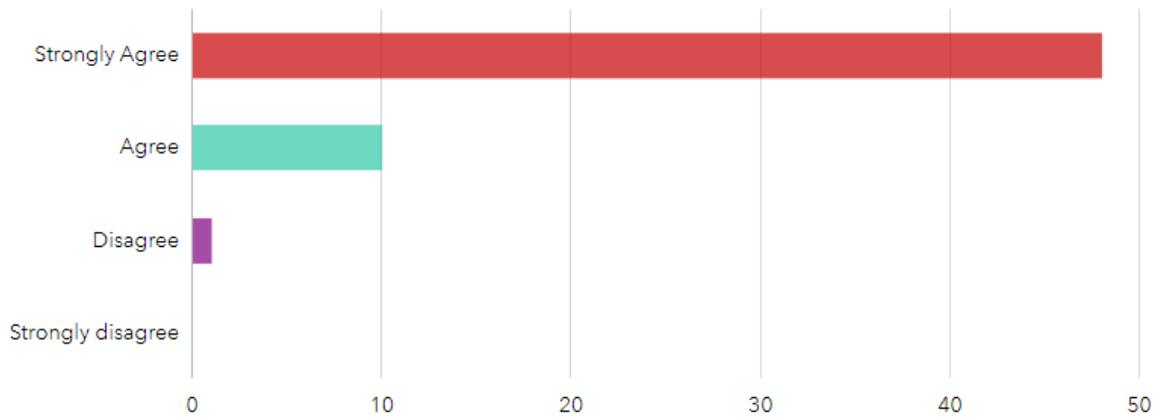
Answers	Count	Percentage
less than 4 minutes	15	25.42%
4 to 6 minutes	28	47.46%
6 to 8 minutes	6	10.17%
8 to 10 minutes	6	10.17%
10 to 12 minutes	1	1.69%
Other	3	5.08%

When asked, “If you need transportation to the hospital, how long should it take for an ambulance to arrive onscene after you dial 911?” the two most common answers were “4 to 6 minutes” (42.37%) and “6 to 8 minutes” (20.34%).



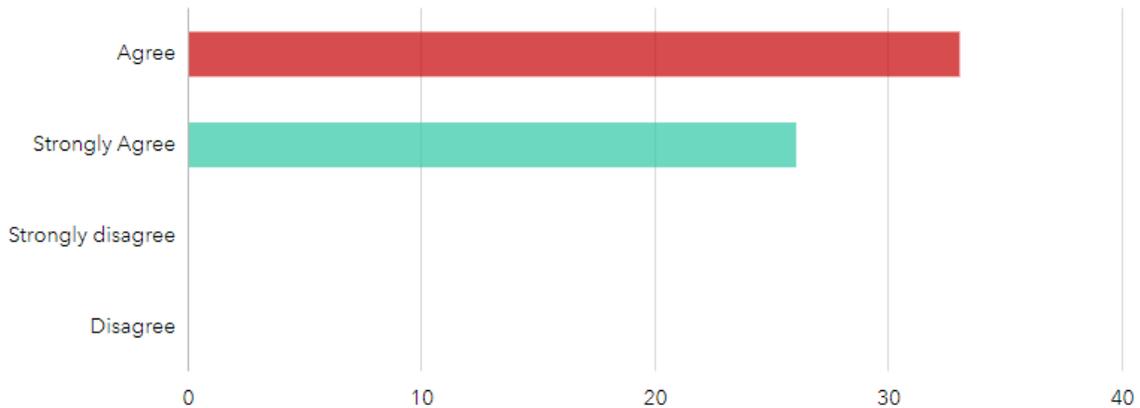
Answers	Count	Percentage
less than 4 minutes	9	15.25%
4 to 6 minutes	25	42.37%
6 to 8 minutes	12	20.34%
8 to 10 minutes	6	10.17%
10 to 12 minutes	4	6.78%
Other	3	5.08%

When asked if “The proximity of a fire station to my home or work is appropriate for my needs,” 81.36% of the community members who participated in this survey strongly agreed with the statement. An additional 16.95% agreed with the statement.



Answers	Count	Percentage
Strongly Agree	48	81.36%
Agree	10	16.95%
Disagree	1	1.69%
Strongly disagree	0	0%

When asked if “The Smyrna Fire Department responds to all emergency calls in a timely manner,” 55.93% of survey participants agreed with this statement, and an additional 44.07% strongly agreed with the statement.



Answers	Count	Percentage
Agree	33	55.93%
Strongly Agree	26	44.07%
Strongly disagree	0	0%
Disagree	0	0%

The Community Survey established performance benchmarks later in this report based on community service needs and expectations. The complete Community Survey is included in this report as Appendix A.

Fire Department Employee Survey

The results of the Fire Department Staff Survey were used to identify priorities related to working conditions and service delivery and to develop recommendations for the future delivery of fire and emergency services by the Smyrna Fire Department later in this report.

The complete Fire Department Employee Survey is included in Appendix B.

Historical Performance Goals

The Smyrna Fire Department still needs to set specific goals for its emergency response performance. This study aims to establish clear and measurable performance goals and objectives for the department. The ultimate objective is to continuously monitor and improve the department's emergency response performance to provide the best possible service to the community.

Community Risk Assessment and Risk Levels

Risk Assessment Methodology

FEMA defines target hazards as “facilities in either the public or private sector that provide essential products and services to the general public, are otherwise necessary to preserve the welfare and quality of life in the community, or fulfill important public safety, emergency response, and/or disaster recovery functions.” The NFPA further breaks these down into three risk categories for occupancies.

- High-Risk Occupancy: An occupancy that has a history of a high frequency of fires, high potential for loss of life or economic loss, or that has a low or moderate history of fires or loss of life, but the occupants have a high dependency on the built-in fire protection features or staff to assist in evacuation during a fire or other emergency.
- Moderate-Risk Occupancy: An occupancy that has a history of a moderate frequency of fires or moderate potential for the loss of life or economic loss.
- Low-Risk Occupancy: An occupancy that has a history of a low frequency of fires and minimal potential for life or economic loss.

To provide a visual illustration of the areas of critical need in the Smyrna Fire Department response area, Dynamix Consulting Group produced Risk Assessment Maps by Ward and also by Fire Station First Due District. These maps attribute a risk classification of low, medium, high, and special risk to each parcel within individual ward and station response areas. Acknowledging that the risk classification represents a combination of risk to both the community and deployment methodologies by the department, these classifications were developed using a combination of structural attributes from the most recent Cobb County parcel data layer available and by identifying trigger points that would cause the Smyrna Fire Department to modify their response and aid requests based upon the characteristics of the structure using a modified OVAP method.

Community risks were determined using the following criteria:

- Commercial buildings were classified as moderate.
- Structures three stories or greater, or 30 feet, were classified as moderate risk.
- Structures >8,000 square feet were classified as moderate risk.
- Structures with known access issues were classified as moderate.
- Residential structures >15,000 square feet were classified as high risk.

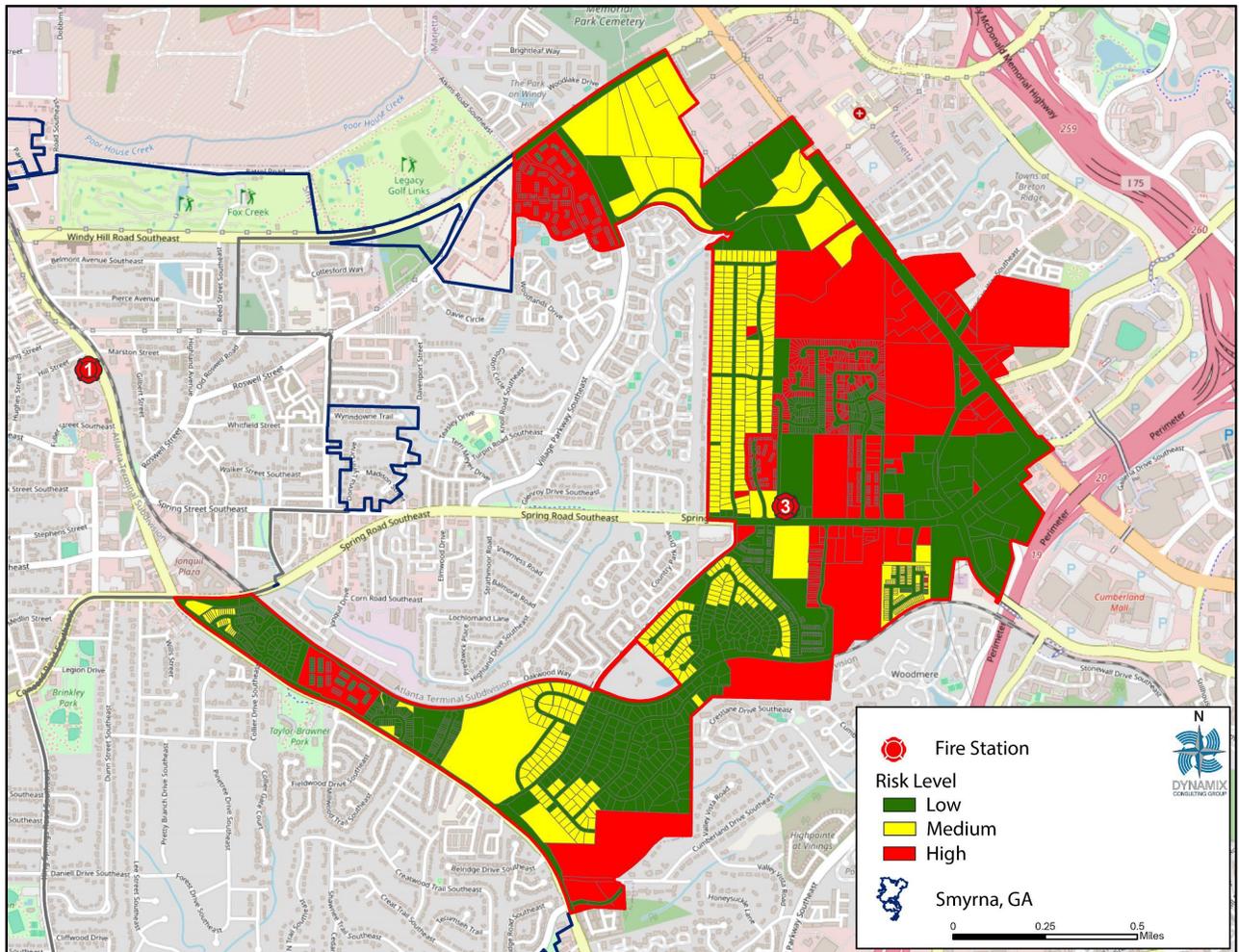
- Structures six stories or greater were classified as high risk.
- Structures inaccessible by fire department apparatus were classified as special risk.

Community risks were estimated for each of three different classes of structures in a community, including low, medium, and high hazard structures as categorized by the NFPA.



Smyrna Fire Department

Risk Assessment: Ward 1

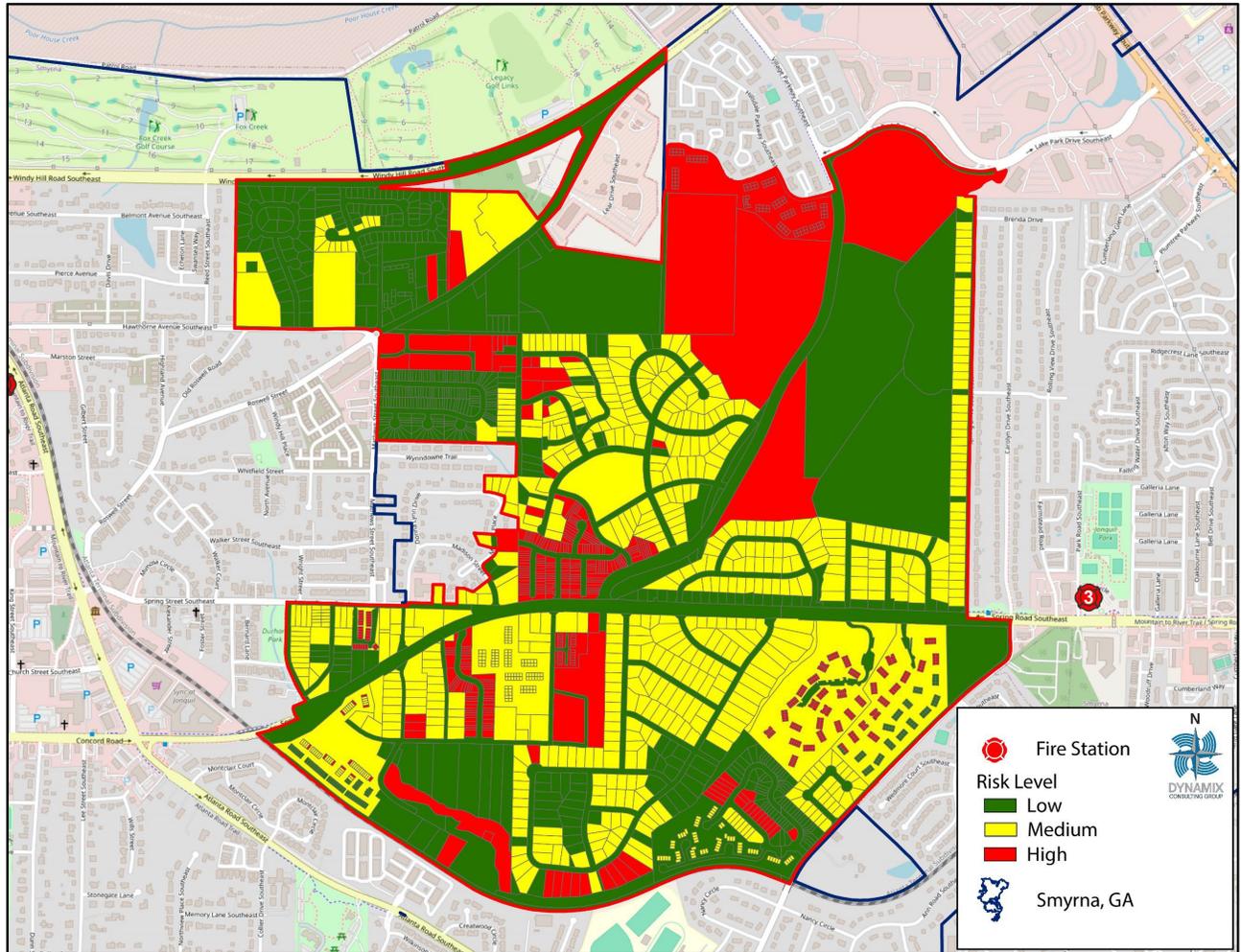


Name	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
Ward 1	8347	5223.4	4249	342



Smyrna Fire Department

Risk Assessment: Ward 2

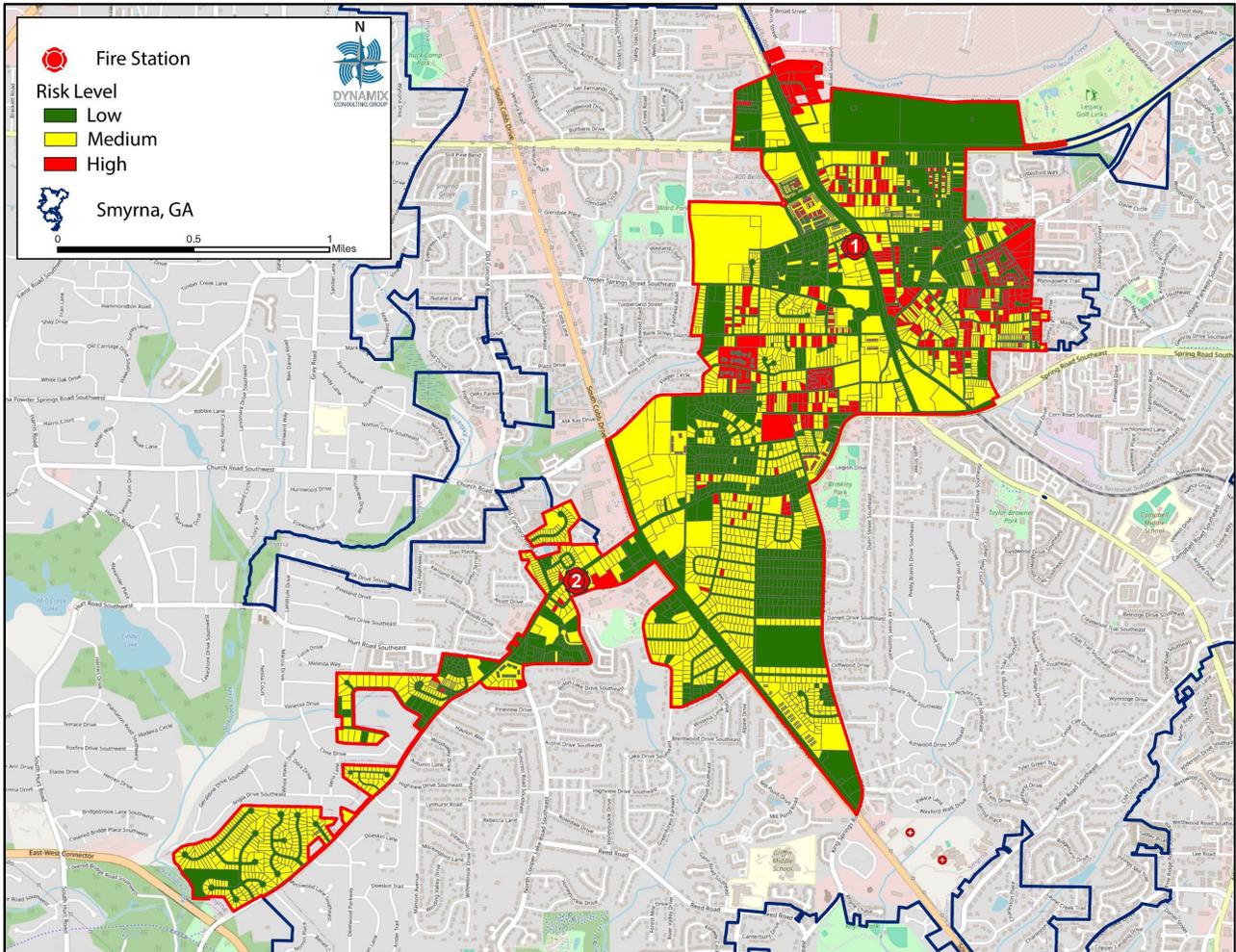


Name	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
Ward 2	8411	6573.4	5148	141



Smyrna Fire Department

Risk Assessment: Ward 3

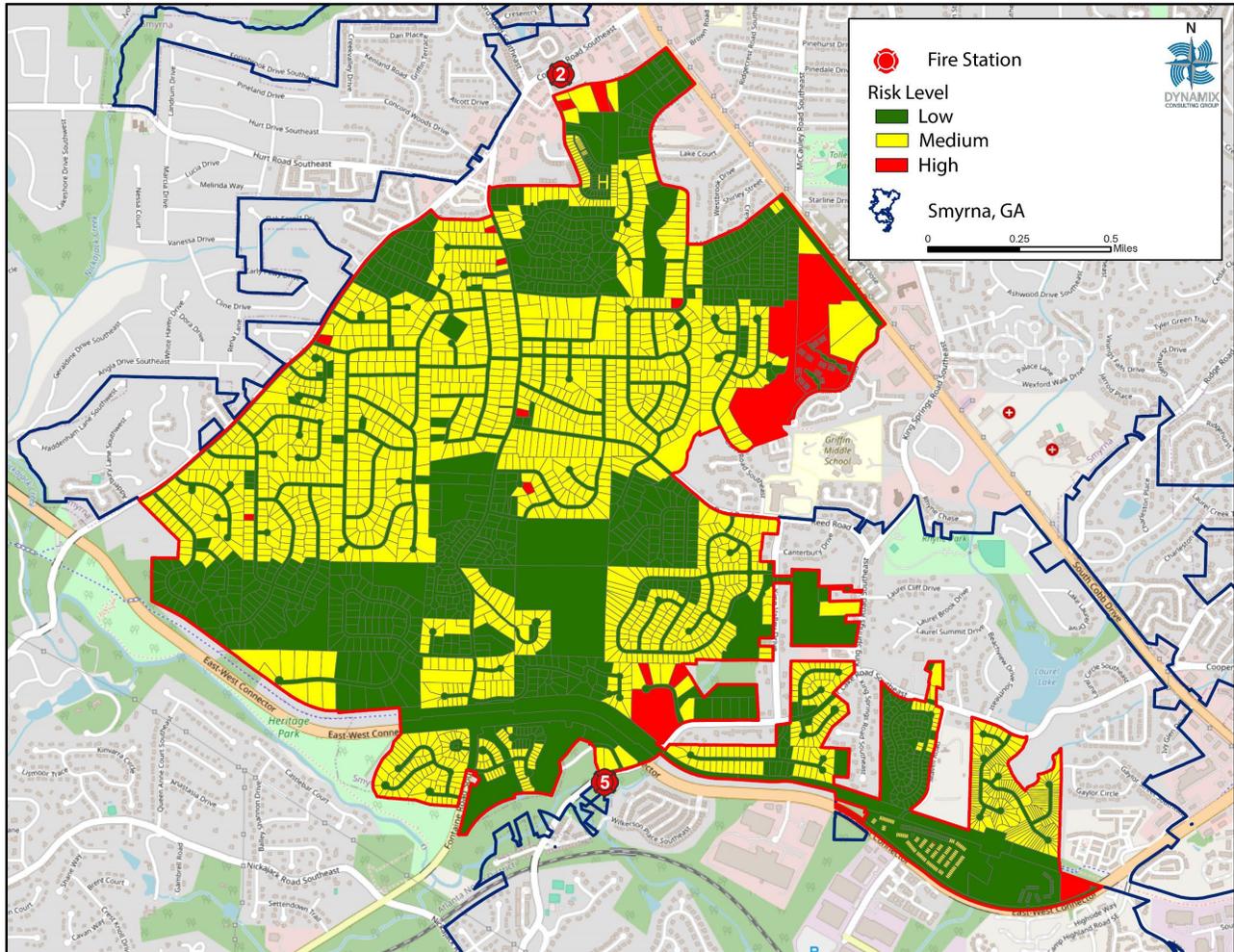


Name	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
Ward 3	7788	3180.2	3670	418



Smyrna Fire Department

Risk Assessment: Ward 4

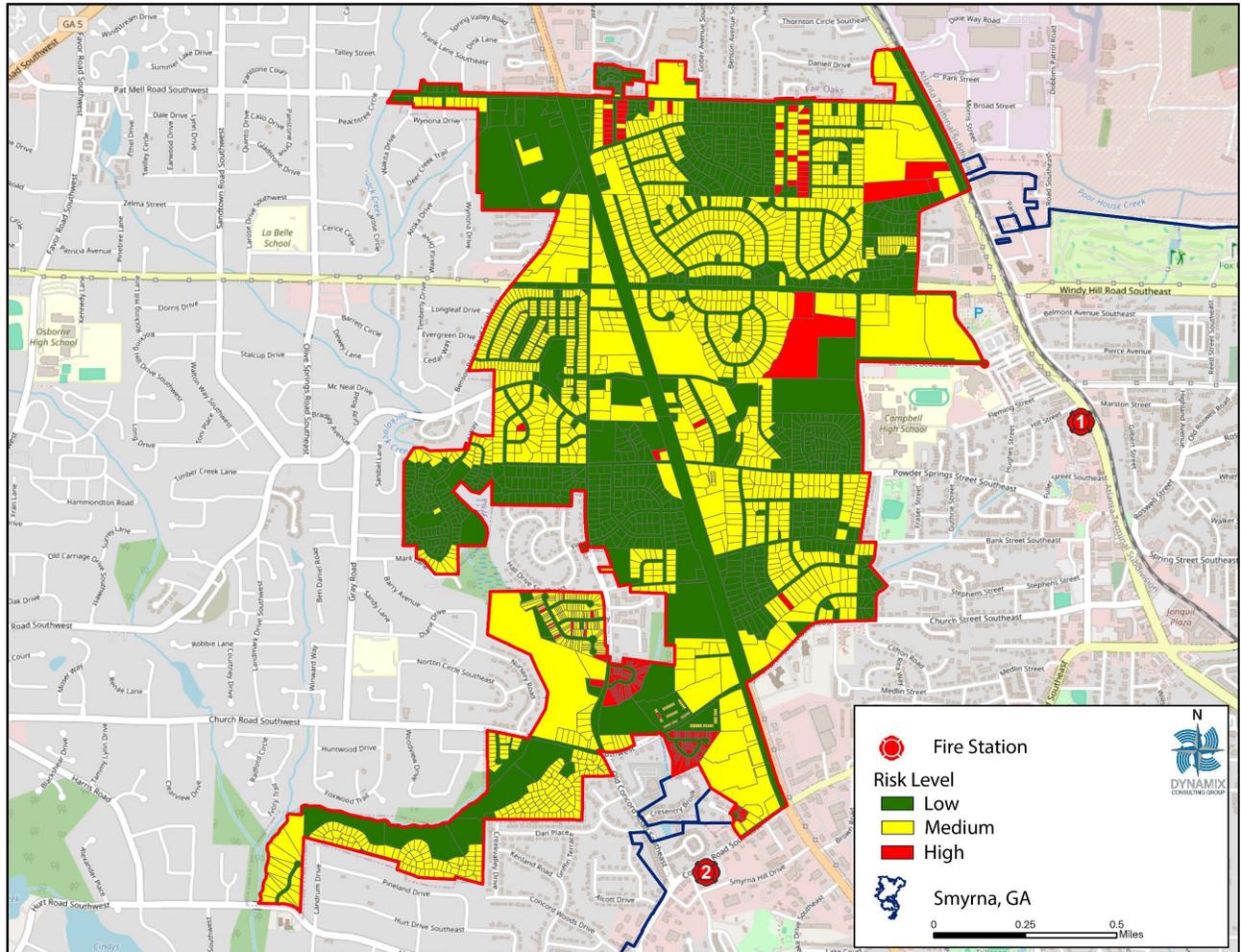


Name	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
Ward 4	8126	3155.5	3318	69



Smyrna Fire Department

Risk Assessment: Ward 5

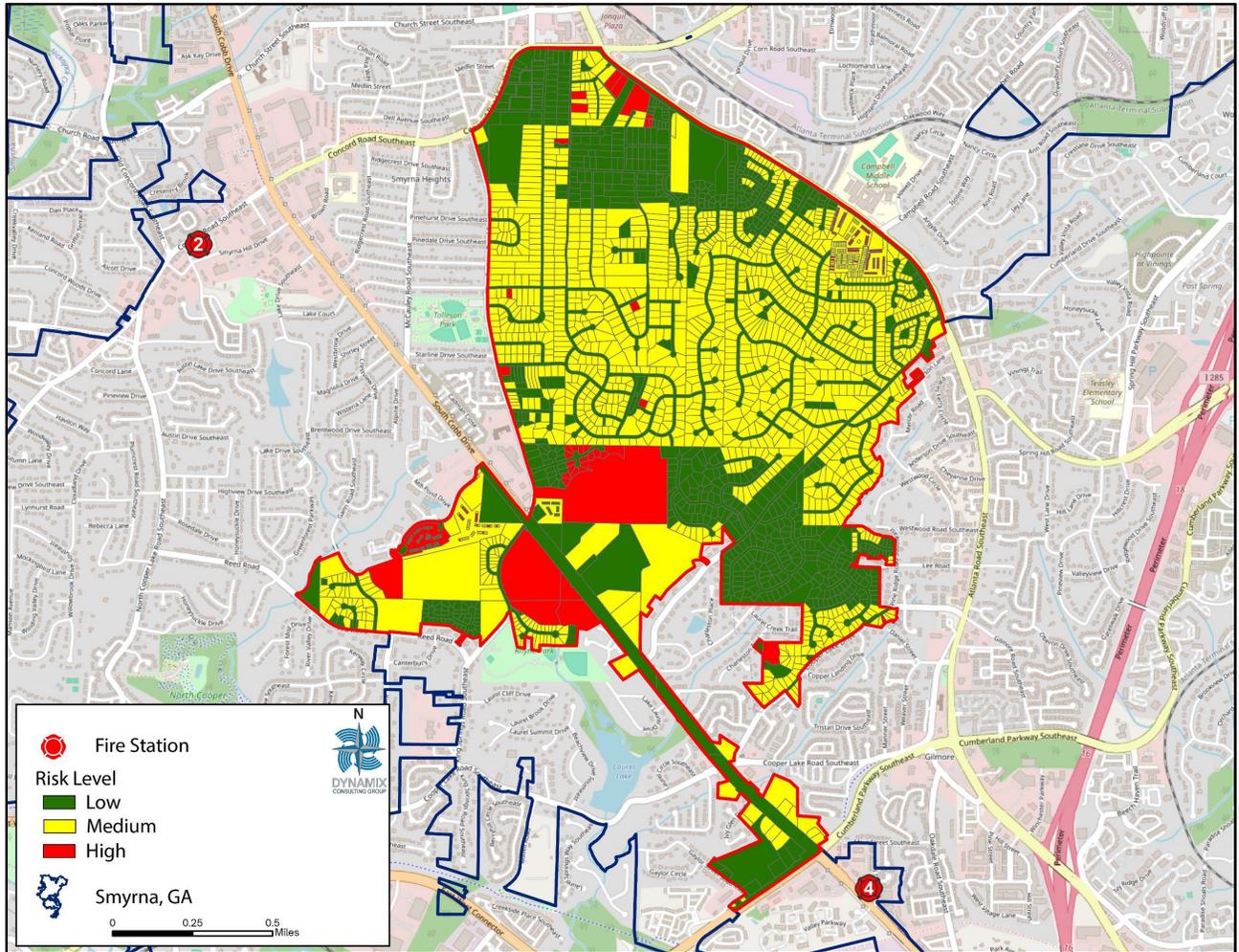


Name	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
Ward 5	8170	4034.1	3502	277



Smyrna Fire Department

Risk Assessment: Ward 6

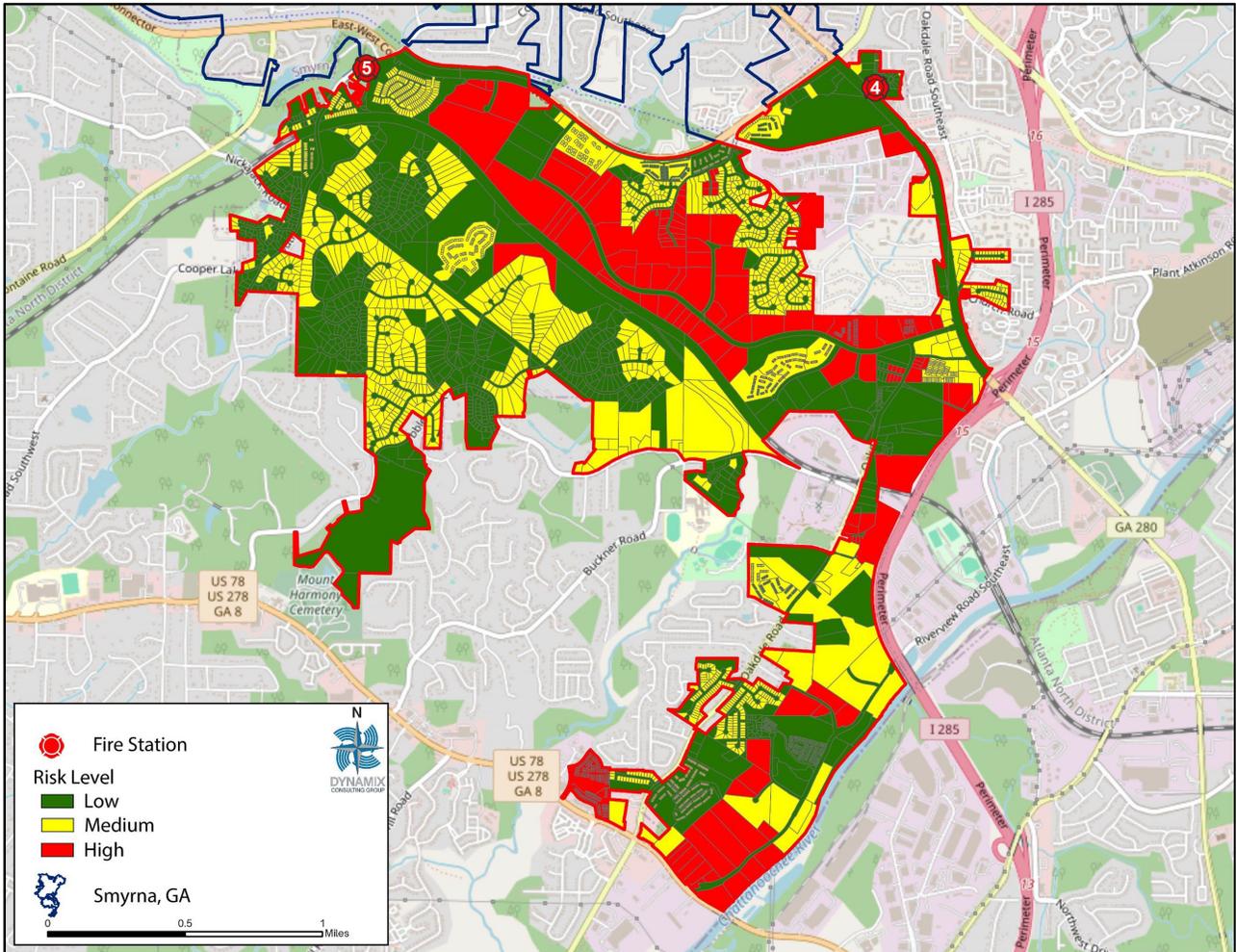


Name	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
Ward 6	8001	3577.4	3484	271



Smyrna Fire Department

Risk Assessment: Ward 7

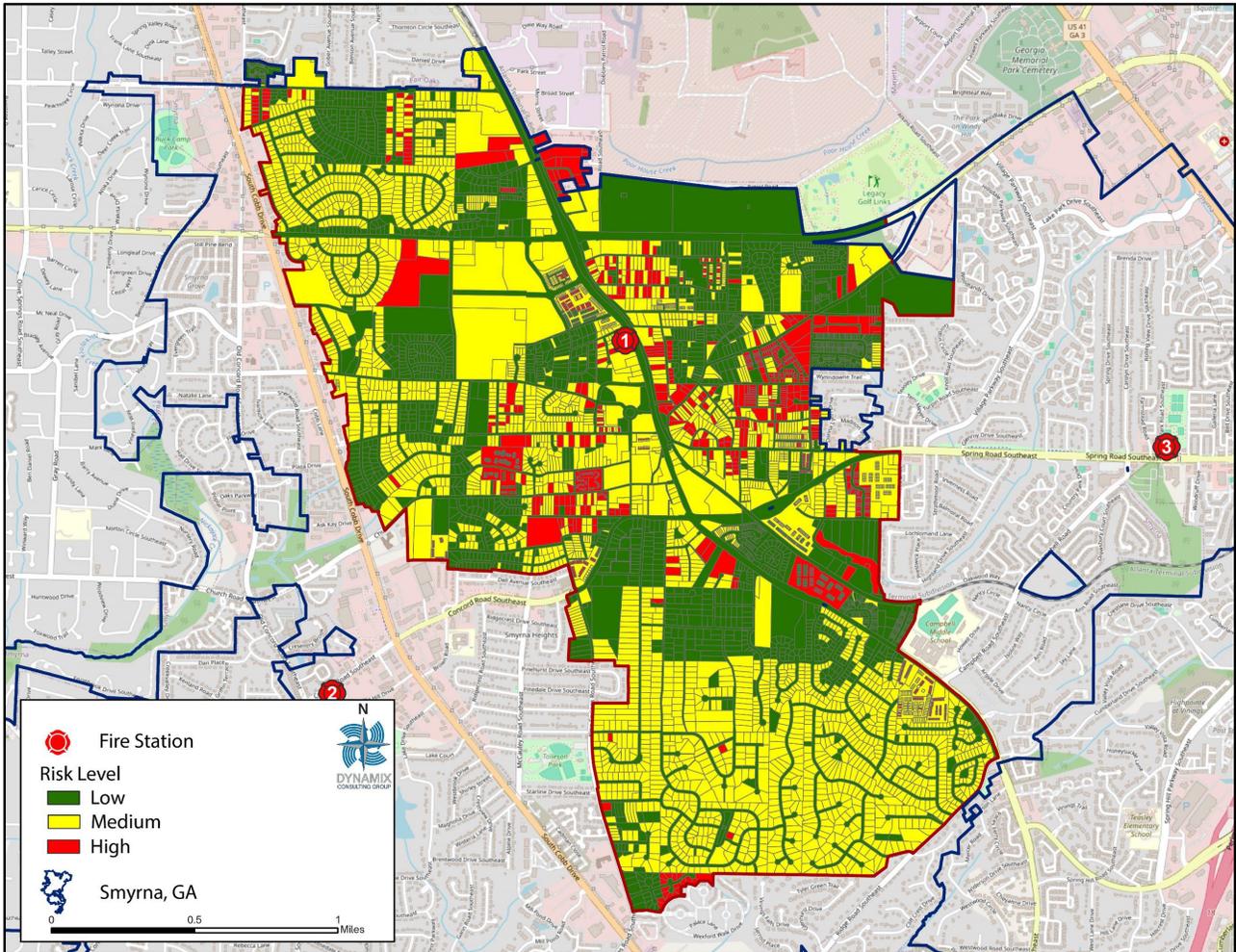


Name	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
Ward 7	10124	2635.4	4471	393



Smyrna Fire Department

Risk Assessment: Station 1

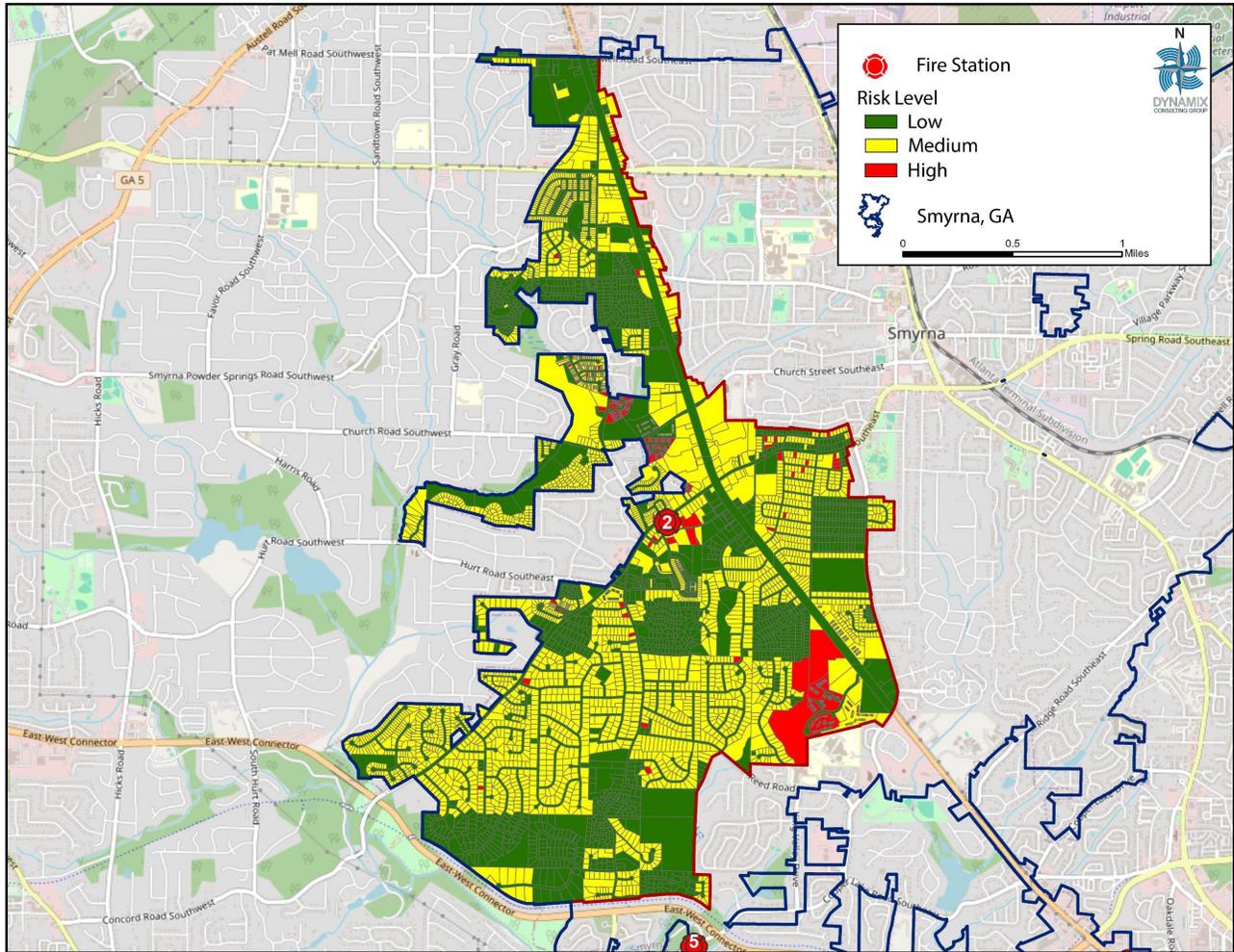


Station	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
1	16367	3894.4	7566	487



Smyrna Fire Department

Risk Assessment: Station 2

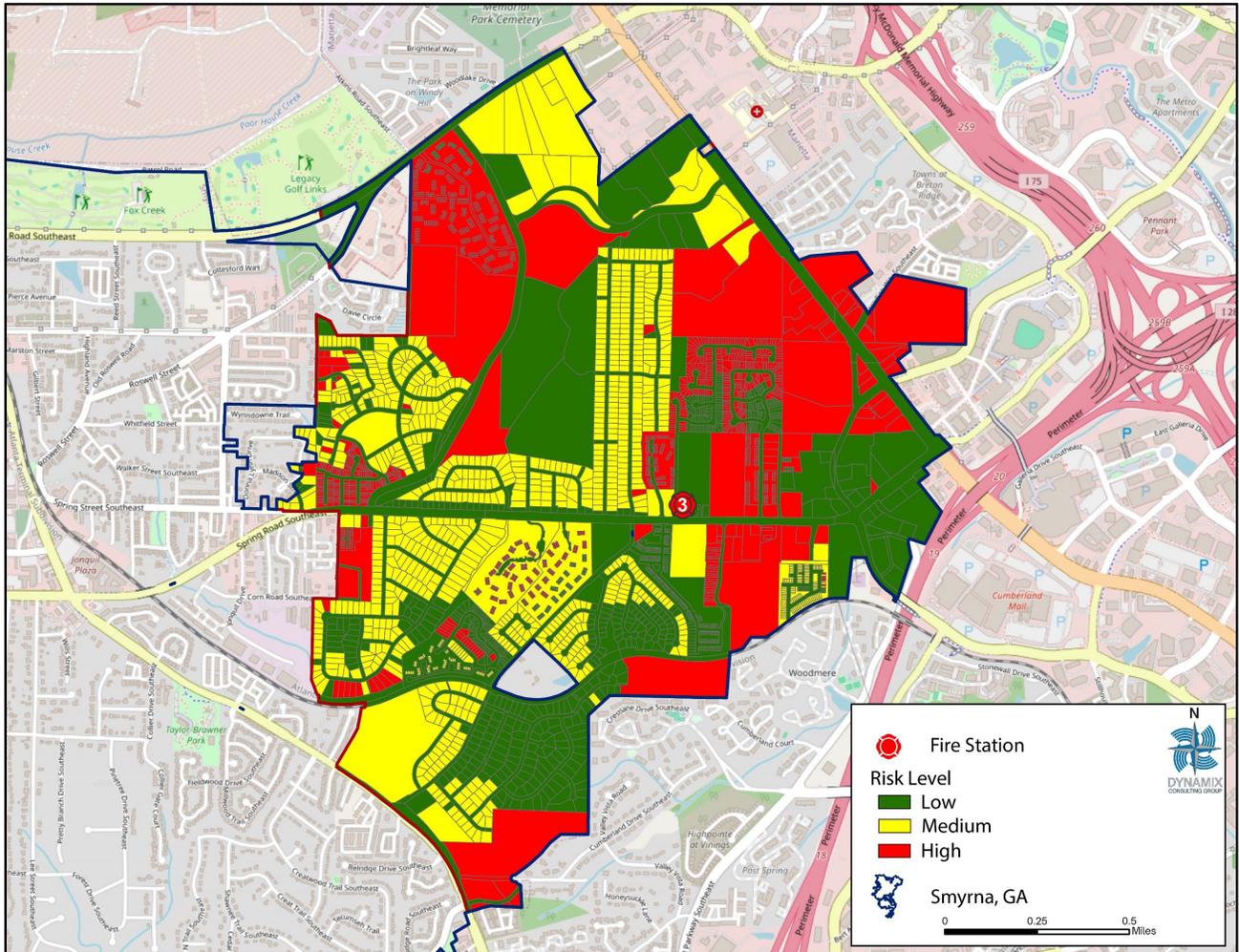


Station	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
2	14583	6105.6	8225	412



Smyrna Fire Department

Risk Assessment: Station 3

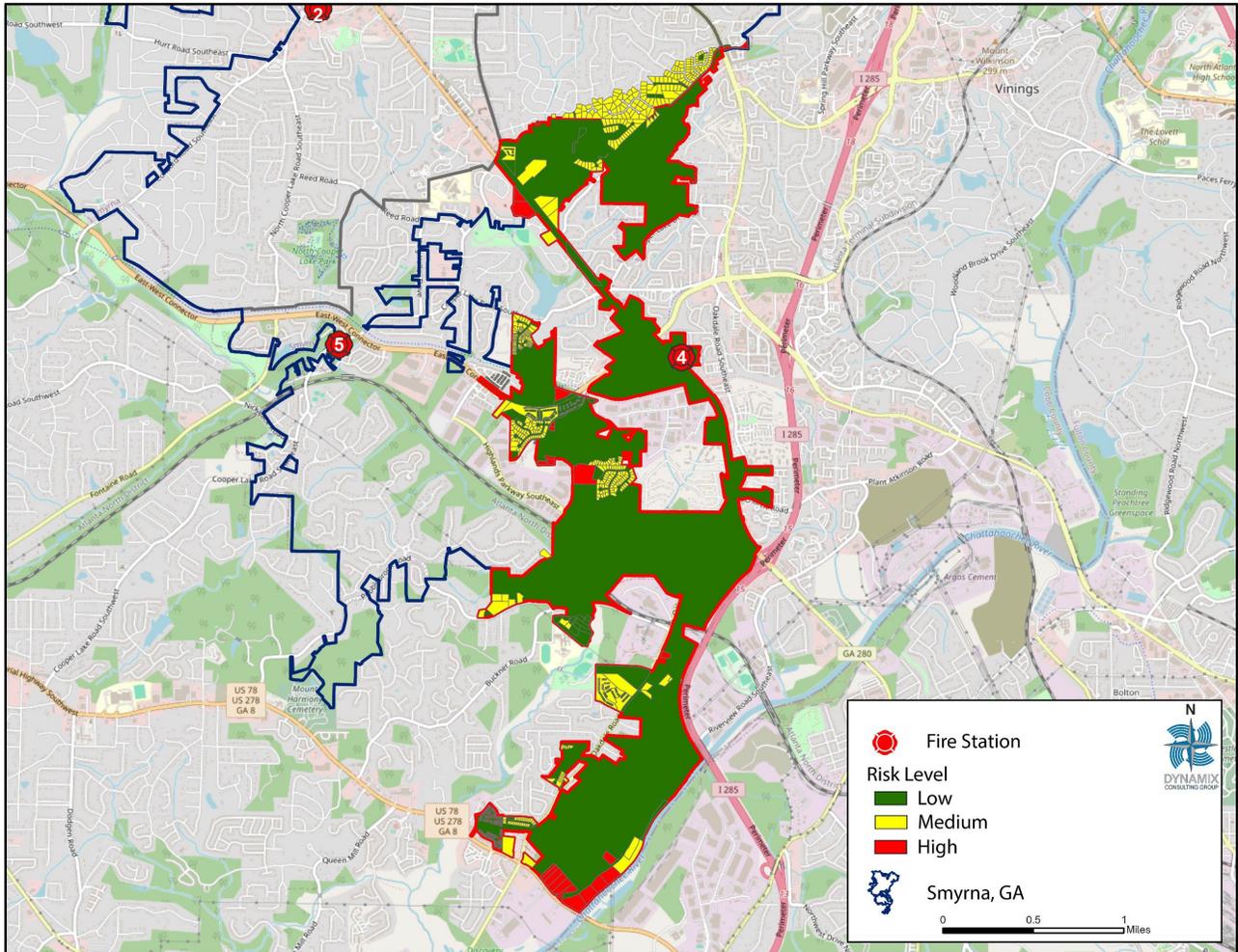


Station	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
3	8631	3248.3	4228	470



Smyrna Fire Department

Risk Assessment: Station 4

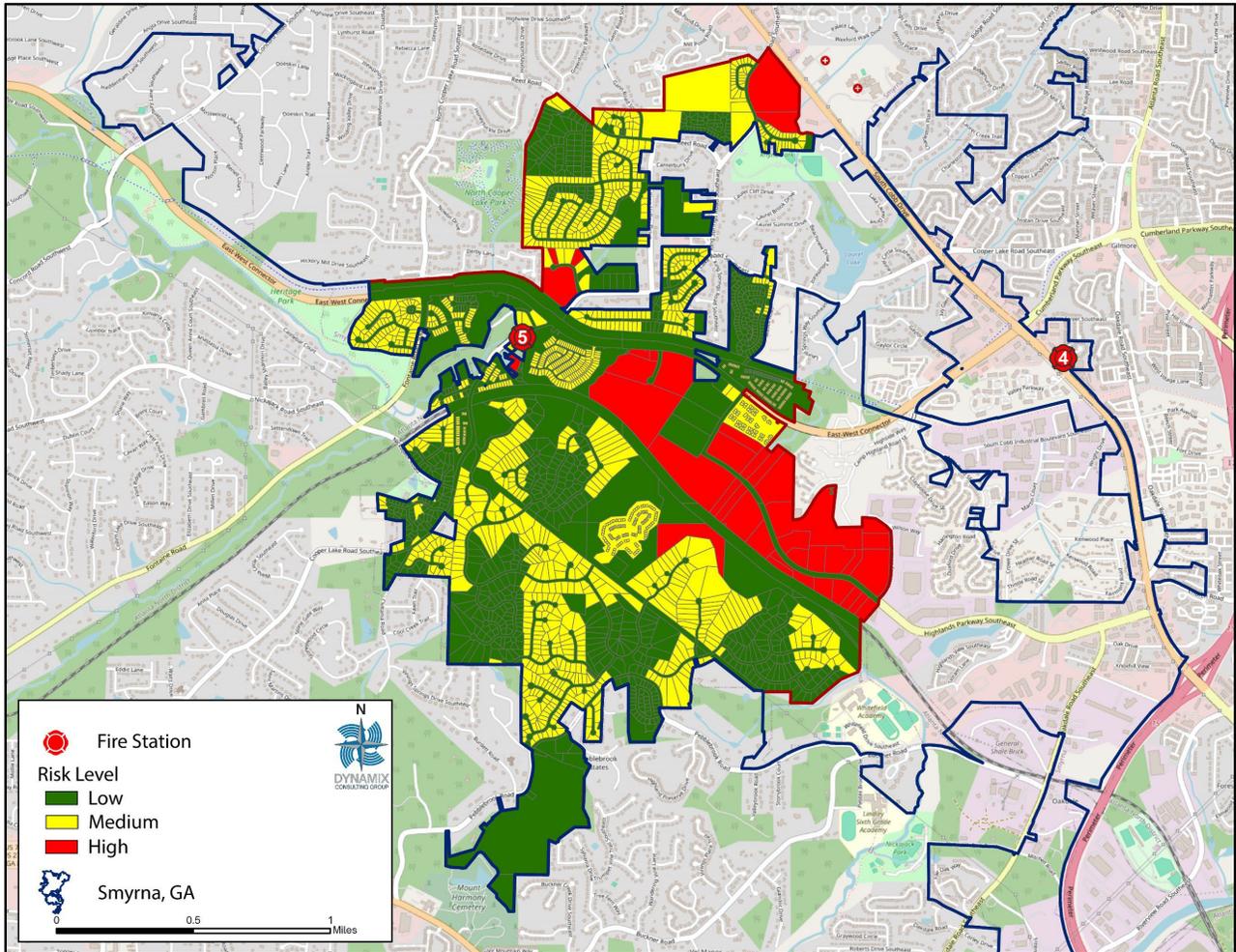


Station	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
4	12110	3027.3	5052	445



Smyrna Fire Department

Risk Assessment: Station 5



Station	2023 Total Population	2023 Population Density	2023 Total Housing Units	2023 Total Businesses (SIC)
5	7276	2638.7	2771	97

Critical Task Analysis

A task analysis enables the department 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 mitigating tasks.

Fire Suppression

This section provides an overview of the Smyrna Fire Department’s initial evaluation and risk assessment methodology for future improvement. Several limiting factors were present at the time of this evaluation including limited or no data regarding the presence or activation of fire detection or suppression systems during actual events. The Smyrna Fire Department should regularly collect, validate, analyze, and evaluate the impact of fire detection and suppression systems within the City.

Low-Risk Fire Suppression

The department 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 department offers the following general task guidelines:

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 department responds to moderate-risk fire suppression incidents with an ERF of three engines, one ladder, and one chief officer for 17 response personnel. For moderate-risk fire suppression incidents, the department offers the following general task guidelines:

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

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

EMS

Low-Risk EMS

Depending on the incident location, the department responds to low-risk emergency medical requests for assistance in conjunction with Metro Atlanta Ambulance with a two- person ALS rescue unit or a three to four-person ALS engine or truck. This response provides for an ERF of four. Metro Atlanta Ambulance Service is responsible for patient transport to a hospital facility as needed.

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

Low-Risk EMS	
Critical Task	Minimum Personnel
Patient Assessment / Treatment / Airway / IV / Medication	1
Equipment Handling / Treatment / Transport	1
Total ERF	2

Moderate-Risk EMS

Moderate-risk EMS incidents are considered incidents that will present a more significant workload and require more resources. For moderate-risk EMS incidents, Metro Atlanta Ambulance dispatches an additional ambulance.

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

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 department responds two fire engines, four EMS ambulances, one chief officer, and 1 EMS command officer for an ERF of 16 and offers the following general task guidelines:

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

Technical Rescue

Low-Risk Technical Rescue

The department 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 department offers the following general task guidelines:

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

Moderate-Risk Technical Rescue

The department 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 department offers the following general task guidelines:

Moderate-Risk Technical Rescue	
Critical Task	Minimum Personnel
Command / Safety	1
Water Supply	1
Protection Line	1
Extrication	4
Total ERF	7

High-Risk Technical Rescue

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

High-Risk Technical 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

Hazardous Materials

Low-Risk HazMat

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

Low-Risk Hazardous Materials	
Critical Task	Minimum Personnel
Command / Safety	1
Investigate / Identify	1
Containment	2
Total ERF	4

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

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 department responds to high-risk hazardous materials incidents with two engines or trucks, one chief officer, and six hazmat team personnel 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 Smyrna Fire Department personnel. For high-risk hazardous materials incidents, the department offers the following general task guidelines:

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

Risk Classification and Categories

Fire 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 low risk.

Risk: Fire In a Dumpster	
Probability of occurrence	2
Consequence to community	2
Impact on the 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 the 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 the 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.

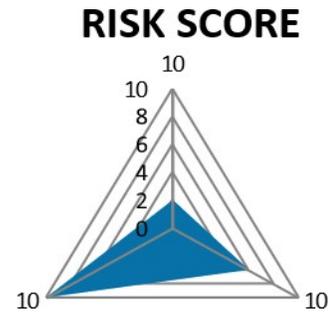
Risk: Mobile Home Fire	
Probability of occurrence	2
Consequence to community	4
Impact on the fire department	8
SCORE	25.92296



High-Risk Fire Suppression

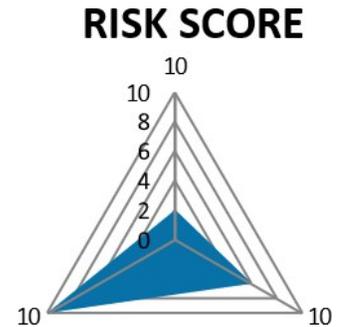
Below is an example of the risk scoring for a fire at a high-rise building. The score of 59.4 categorizes this fire as high-risk.

Risk: High Rise Fire	
Probability of occurrence	2
Consequence to community	8
Impact on the 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 the fire department	10
SCORE	45.51923



EMS Risk Classification and Categories

EMS Risk Level Categories
Low = <21
Moderate = 21-30
High = > 30

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 the fire department	2
SCORE	20.19901



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

Risk: BLS Medical (1 Patient)	
Probability of occurrence	10
Consequence to community	2
Impact on the 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 the fire department	4
SCORE	25.92296



High-Risk Emergency Medical Services

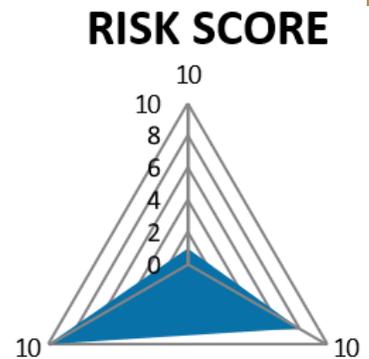
Below is an example of a response to a call for multiple patients (5 - 10). The score of 34.66 categorizes this as high-risk.

Risk: MCI (5-10 Patients)	
Probability of occurrence	1
Consequence to community	6
Impact on the 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 the fire department	10
SCORE	57.28874



Technical Rescue Risk Classification and Categories

Technical Risk Level Categories
Low = <21
Moderate = 21-30
High = >30

Low-Risk Technical Rescue

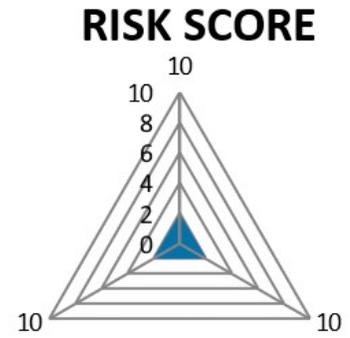
Below is an example of a response to a minor vehicle accident with no injuries. The score of 12.3 categorizes this as low-risk.

Risk: Vehicle Accident No Injuries	
Probability of occurrence	6
Consequence to community	2
Impact on the 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 the fire department	2
SCORE	4.898979



Moderate-Risk Technical Rescue

Below is an example of a vehicle accident with entrapment and 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 the 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.

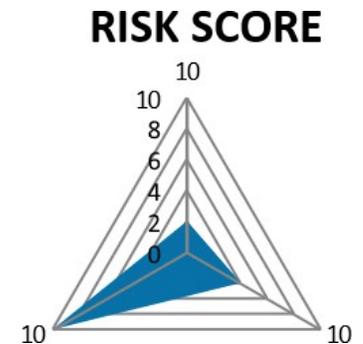
High-Risk Technical Rescue

Risk: Building Collapse with Entrapment and Injury (3 patients)	
Probability of occurrence	2
Consequence to community	4
Impact on the fire department	8
SCORE	25.92296



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 the fire department	10
SCORE	32.12476



Below is the scoring for a vehicle accident involving a school bus, 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 the fire department	10
SCORE	45.51923



Hazardous Materials Risk Classification and Categories

Hazardous Materials 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.

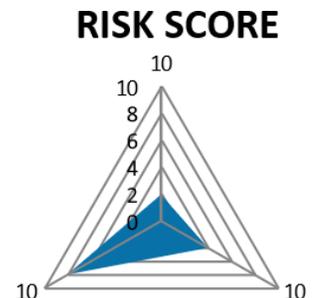
Risk: Gas Leak/Odor	
Probability of occurrence	6
Consequence to community	2
Impact on the fire department	2
SCORE	12.32883



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 Patients	
Probability of occurrence	2
Consequence to community	4
Impact on the 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 the fire department	8
SCORE	36.76955



Historical Perspective and Summary of System Performance

The demand for services drives the Smyrna Fire Department’s mission to provide the City of Smyrna with superior customer service and integrated emergency response to any situation threatening the life, safety, and well-being of people and property. The ways in which Smyrna deploys assets, the types of services provided, and the way training is accomplished should be reflective of the types of incidents to which the department responds, the level of risk associated with those incidents, and the relative frequency of occurrence of these incident types.

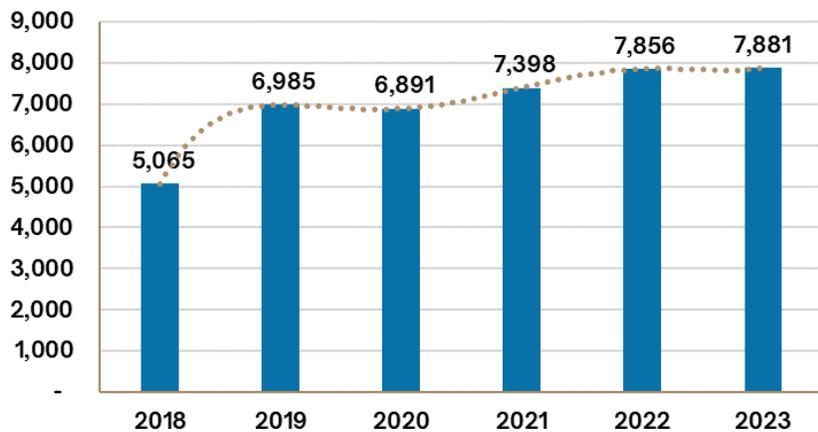
Trends in the data provided can provide insights into how service demand may change year to year and the major categories of incident types. Knowing when high-demand periods occur will assist the Smyrna Fire Department in determining whether staffing levels are sufficient for that demand and in scheduling additional duties such as training, fire safety inspections, and vehicle maintenance.

Service Demand

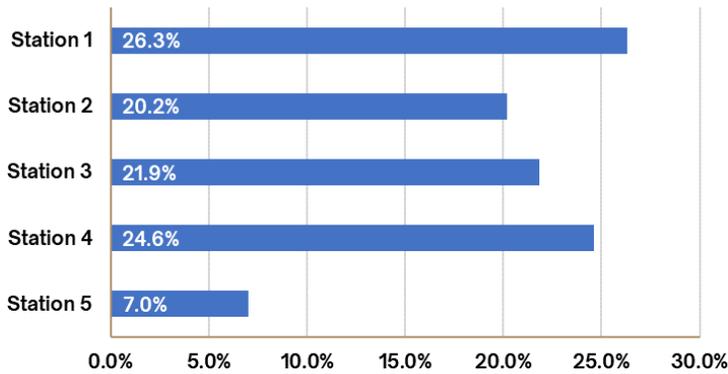
The average annual increase in incident volume for the four-year study period is 4.5%. The reduction in call volume from 2019 to 2020 was 10% but rose sharply with a 17.4% increase from 2020 to 2021. The Covid-19 Global Pandemic likely impacted the 2020 call volume. The increase from 2021 to 2022 was

2.5%. Next, service demand by station is discussed to provide an overview of where demand for services is occurring relative to each fire station.

Annual Incident Totals



Overall Demand by Fire Station 2018-2022



During the four years from January 1, 2019, through December 31, 2022, the busiest stations were Station 1 (26.3%) and Station 4 (24.6%). Stations 7, 2, and 5 trailed Station 10 between 1% and 2%.

While annual incident totals can provide perspective on how community dependence upon the fire and emergency medical

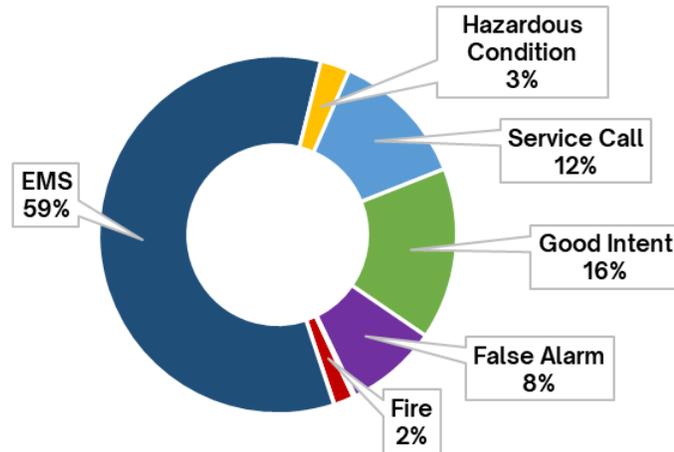
services fluctuates year over year, understanding the types of incidents and their relative frequency is equally important to the deployment model and associated services offered by the fire department.

All incidents are documented by the responding unit within the Smyrna Fire Department’s Record Management System (RMS). Fire, EMS, and all other call types are classified and incidents are documented within their respective module. These records are stored electronically and, in the case of EMS responses, information such as provider impression, patient history, data regarding treatment rendered, and the patient disposition are recorded in a secure database to protect patient information. Fires and other incidents also have specific information collected such as property value, fire loss, casualties, and contents value.

Categories used in this analysis are based on the National Fire Incident Reporting System (NFIRS) guidelines for grouping incident types. Within the NFIRS classifications, the following incident types are grouped within the corresponding series:

- 100 Fire
- 200 Overheat/Overpressure
- 300 EMS
- 400 Hazardous Conditions
- 500 Service Call
- 600 Good Intent
- 700 False Alarms
- 800 Severe Weather
- 900 Special Incident

Service Demand by Call Frequency

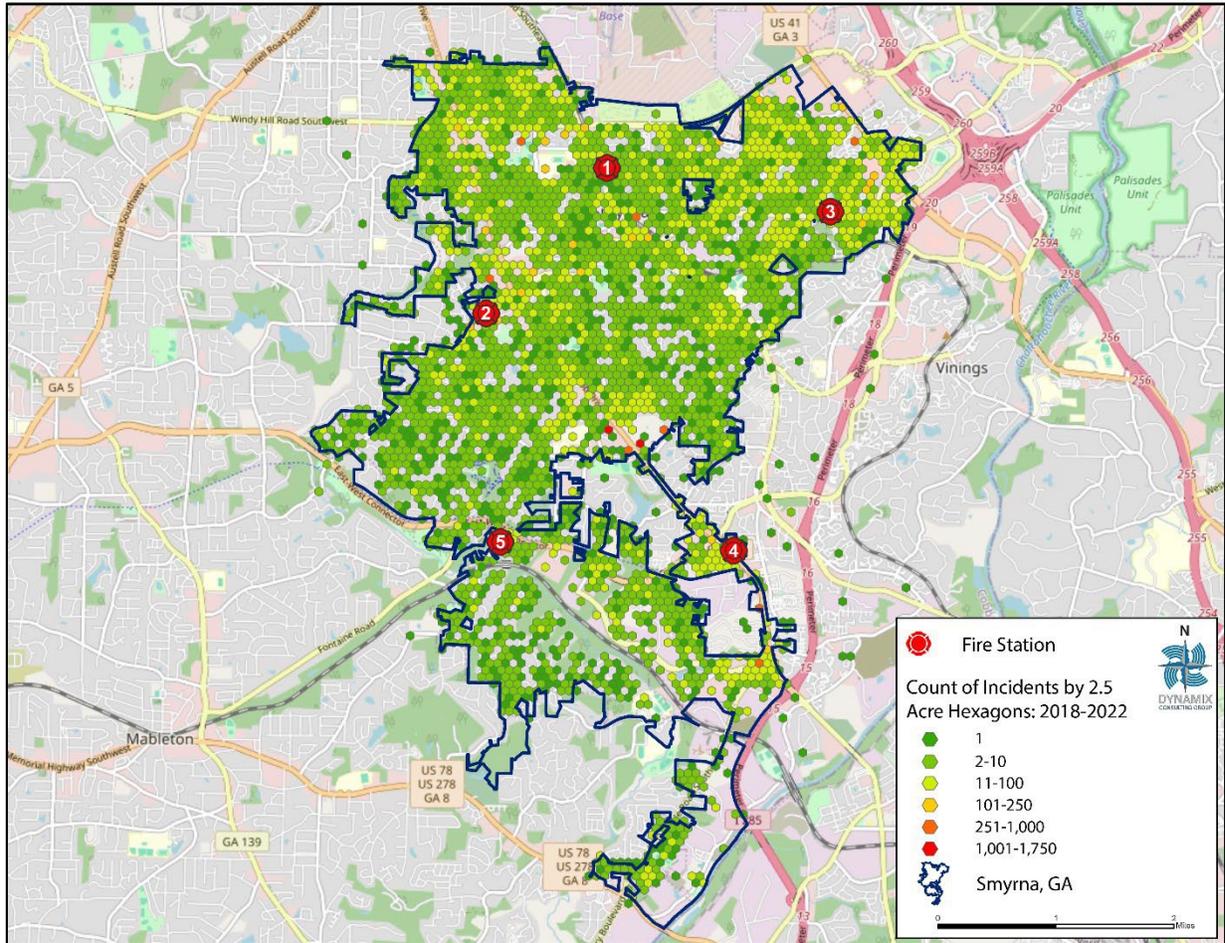


Like many other fire departments across the country, the majority of responses by the Smyrna Fire Department are EMS in nature at 78.3%. False Alarms (alarms transmitted via the public telephone network using the local emergency reporting number) represented 7.2% of demand, with Good Intent calls at 6.7% (a condition mistaken as an emergency) and Service Calls at 5.3%, rounding out the next grouping of most frequent call types.

Hazardous Conditions 1.2% (chemical spills or noxious gases, for example) and Fires 1.2% round out the remainder of the categories. In addition to these categories, Overpressure/Overheated equipment, Severe Weather, and Special Incidents (such as standbys) are also included; however, they accounted for less than 0.1% each of call frequency for Smyrna.

The following map includes actual incident locations aggregated into 2.5-acre hexagons using GIS software. The map excludes hexagons that do not contain an incident. This information provides a visual image of patterns of incident volume and distribution.

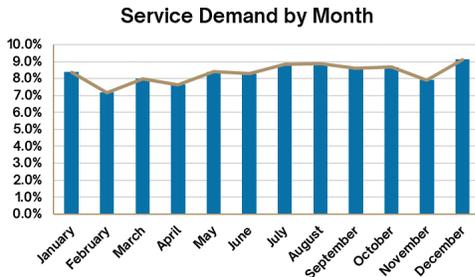
Incident Totals by 2.5 Acre Hexagons 2018-2022



The greatest incident volume is generally around Station 1 and reflects its total call volume. Additionally, Station 1 can be viewed as sitting at the center of a hub and will respond as second or third due when the stations around it require additional assistance.

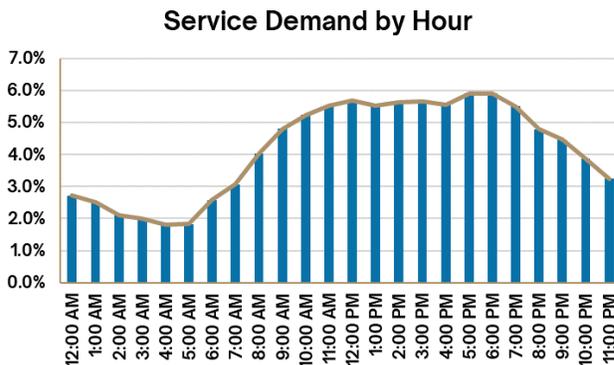
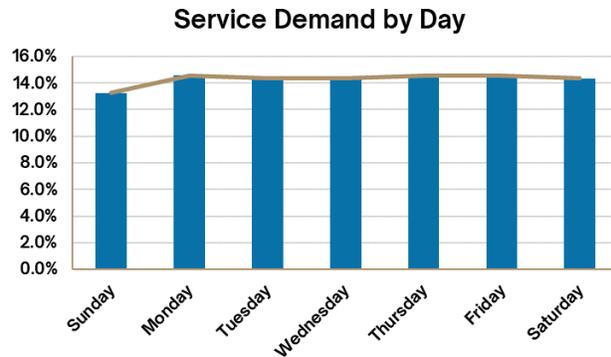
Temporal Variation

Understanding when increases or decreases in service demand are most likely to occur will provide the Smyrna Fire Department with insights into when to anticipate higher or lower levels of service demand and to staff accordingly. By examining demand patterns by month, day, and hour, temporal patterns emerge as to when the greatest demand levels occur. First, temporal variation by month is illustrated.



Demand for service by month illustrates a reasonably consistent pattern that varies by less than two percent. The decreases occur during late winter, early spring, and fall.

Demand by day of the week displays a typical pattern of service demand increasing during the work week and decreasing on the weekends.



Finally, demand by the hour of day also follows the typical pattern of demand increasing at the beginning of the day, reaching its peak during the midday and early afternoon, then decreasing throughout the night, with 2 a.m. to 5 a.m. being the hours of lowest demand.

Distribution Factors

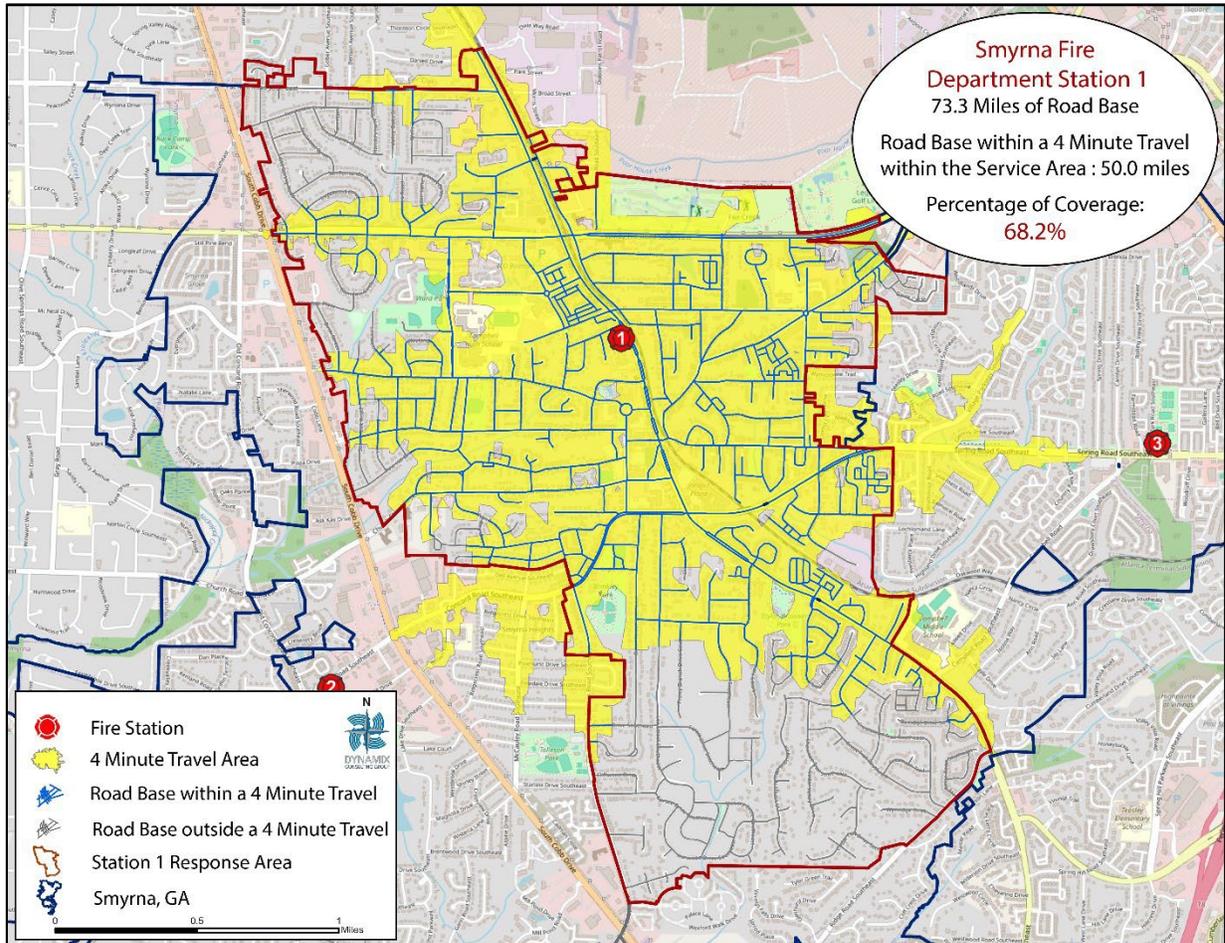
In fire and emergency medical response, the term distribution pertains to the location of resources and the expediency with which the initial emergency unit arrives at an incident. It is important to note that resources may be reassigned to different locations depending on the situation. In typical response scenarios, the resources stationed in a particular area are deemed the closest to the first-due location.

Various factors can influence the response times of emergency units, such as the placement of fire stations within a planning area. Moreover, the time of day, traffic conditions, and the size of the first-due response area all contribute to the pace at which emergency units can reach the site of an incident. By considering these factors, emergency management professionals can optimize their response times and guarantee the safety of those involved in an emergency.

Station 1

Station 1’s service area covers approximately 4.2 square miles. The area has approximately 73.3 road miles, providing access to various locations. The figure below provides the predicted travel capability within a four-minute drive time to approximate coverage area during an emergency. With Station 1 in its current position, Truck 1 can reach 50.0 miles of road base, which is 68.2% or 2.5 square miles of the Station 1 coverage area, within four minutes of emergency travel.

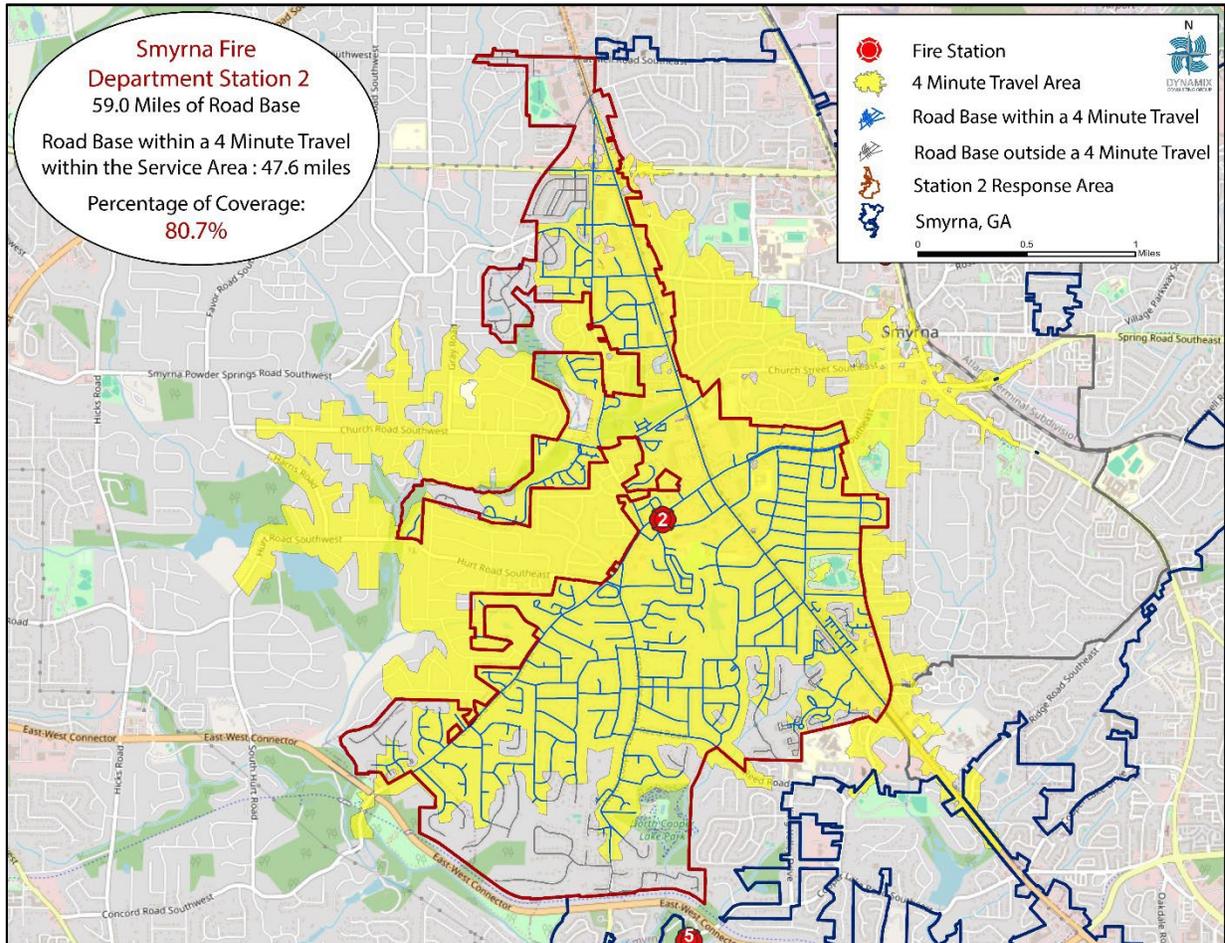
Station 1 Service Area



Station 2

Station 2’s service area covers approximately 4.0 square miles. The area has approximately 59.0 road miles, providing access to various locations. The figure below provides the predicted travel capability within a four-minute drive time to approximate coverage area during an emergency. With Station 2 in its current position, Engine 2 can reach 47.6 miles of road base, which is 80.7% or 2.7 square miles of the Station 2 coverage area, within four minutes of emergency travel.

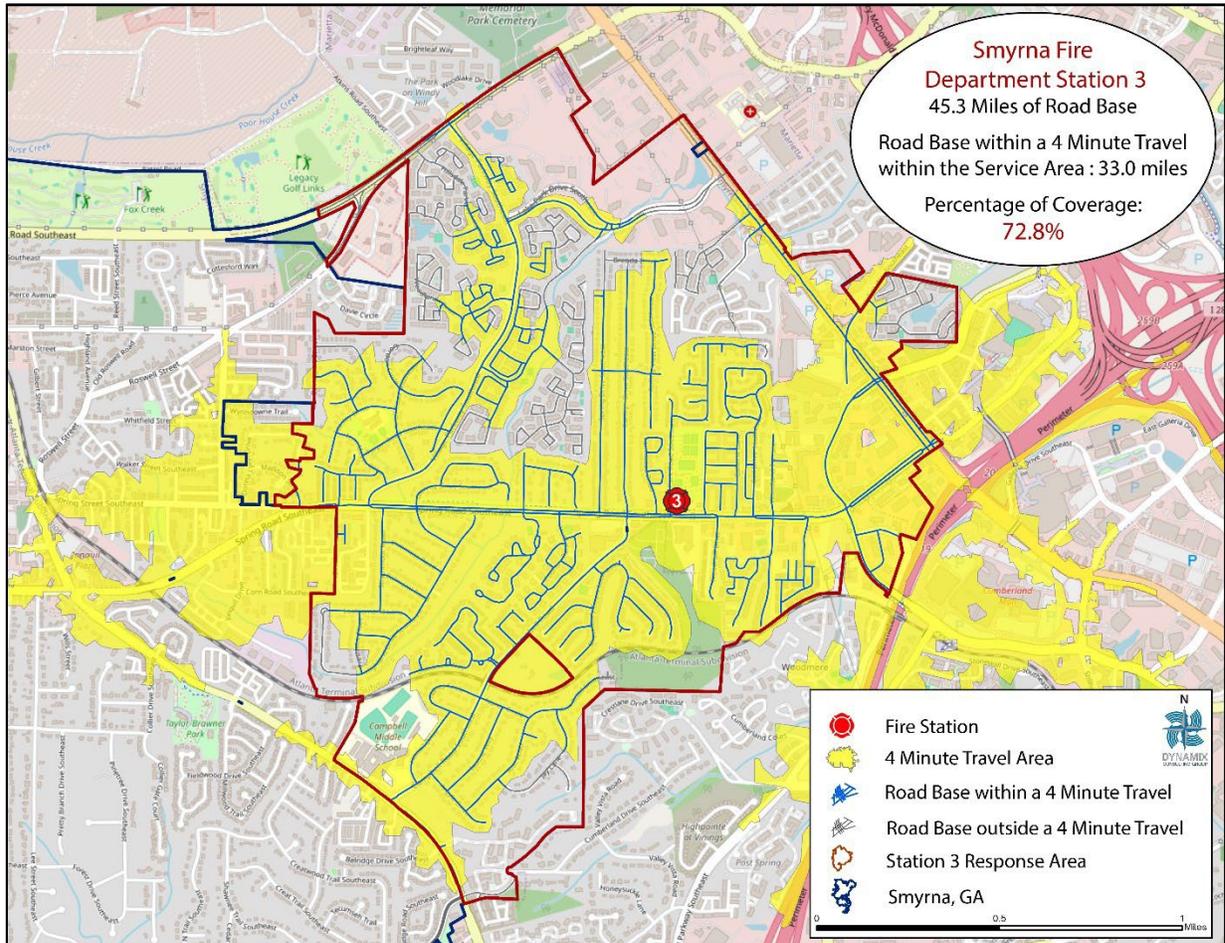
Station 2 Service Area



Station 3

Station 3’s service area covers approximately 2.4 square miles. The area has approximately 45.3 road miles, providing access to various locations. The figure below provides the predicted travel capability within a four-minute drive time to approximate coverage area during an emergency. With Station 3 in its current position, Engine 3 can reach 33.0 miles of road base, which is 72.8% or 1.6 square miles of the Station 3 coverage area, within four minutes of emergency travel.

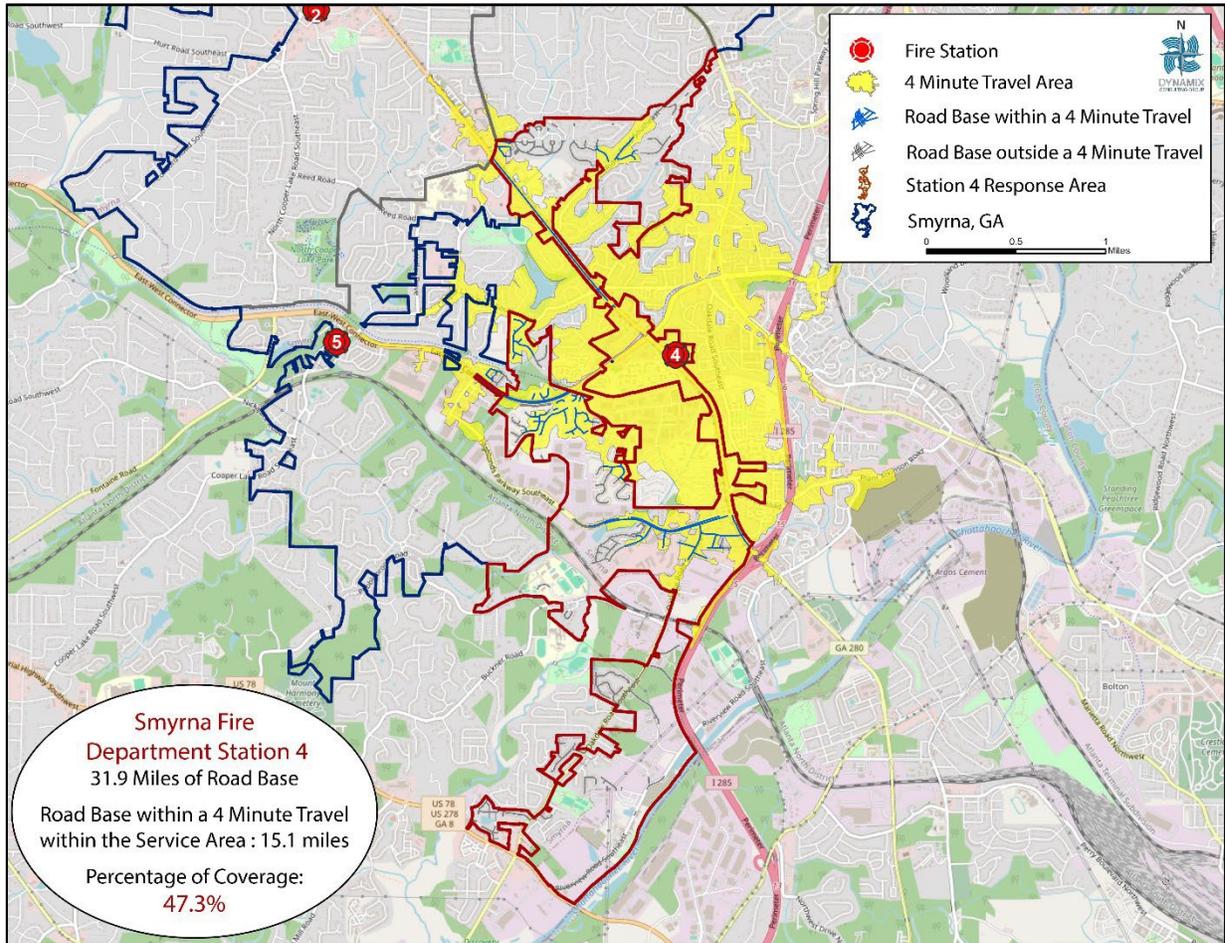
Station 3 Service Area



Station 4

Station 4's service area covers approximately 2.7 square miles. The area has approximately 31.9 road miles, providing access to various locations. The figure below provides the predicted travel capability within a four-minute drive time to approximate coverage area during an emergency. With Station 4 in its current position, Truck 4 can reach 15.1 miles of road base, which is 47.3% or 0.9 square miles of the Station 4 coverage area, within four minutes of emergency travel.

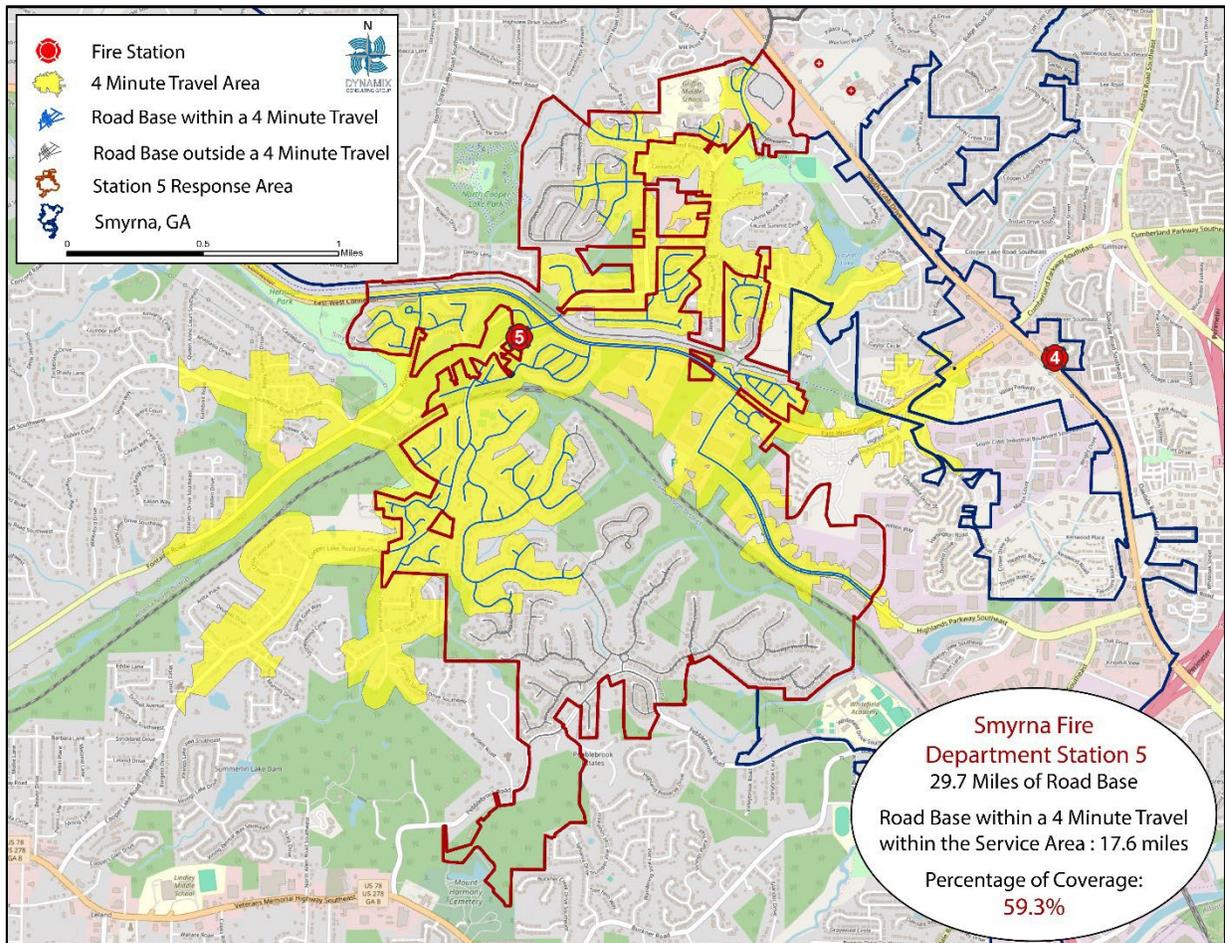
Station 4 Service Area



Station 5

Station 5’s service area covers approximately 2.8 square miles. The area has approximately 29.7 road miles, providing access to various locations. The figure below provides the predicted travel capability within a four-minute drive time to approximate coverage area during an emergency. With Station 5 in its current position, Engine 5 can reach 17.6 miles of road base, which is 59.3% or 1.7 square miles of the Station 5 coverage area, within four minutes of emergency travel.

Station 5 Service Area



Concentration Factors

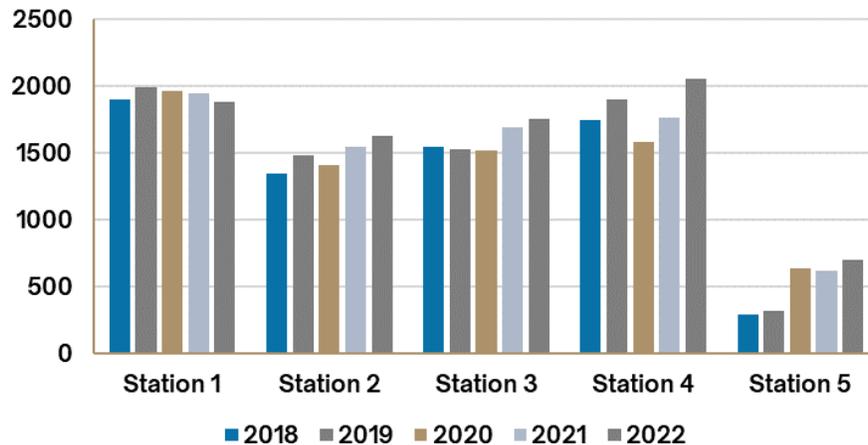
It is imperative to consider both the expeditious arrival of the initial emergency unit and the capacity of the service area to furnish adequate equipment and personnel during an emergency. Many factors may impinge upon the service area’s ability to provide suitable equipment and personnel, including staffing. Notably, the Department maintains a maximum staffing level of 24, stationed across five locations, with a minimum staffing requirement of 20 for each shift.

Unit Staffing by Station

Station	Units	Min. Staffing
	1 ALS Truck / 1 ALS Rescue	4 / 3
1	1 ALS Engine	3
2	2 ALS Engine	3
3	3 ALS Engine	3
4	1 ALS Truck / 1 ALS Rescue	4 / 3
5	5 ALS Engine	3

Ensuring a prompt and efficient response to emergency calls is of utmost importance. To achieve this, the Smyrna Fire Department has implemented several mutual aid agreements, where additional resources may be requested as needed from other fire /EMS departments. Moreover, a continuous officer presence is present on each engine, squad, or truck by qualifying all personnel to work “out of classification.” The fire department credentialing program requires personnel to hold the same certifications as required for the position they are working in. The number of incidents responded to in each response zone as shown below serves as a general indicator of call densities in each first-due area. It’s worth noting that more active stations may experience concurrent calls, which could necessitate a response from the next nearest unit, potentially impacting the arrival time of an effective response force.

Service Demand by Station



Traffic can also be a factor, particularly during the winter months when there is an influx of seasonal residents and heavier traffic.

Reliability Factors

To determine the reliability factor of a unit, the Smyrna Fire Department employs multiple metrics to determine the workload for the crews assigned to each unit. The first metric used is Unit Hour Utilization (UHU). UHU is defined as the number of hours a unit’s crew is committed to calls throughout a period of time, typically displayed as a percentage of the timeframe measured. UHU is used by many fire and emergency medical service (EMS) organizations to determine the workload and reliability of units and the crews assigned to them. While no industry standard is defined, it is commonplace within public fire and EMS agencies to maintain UHU rates at or below 25 to 30 percent, as UHU rates above this level directly impact crew reliability, response performance, a crew’s ability to complete other functions, and burnout and fatigue.

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 its service area
- Out of service area calls requiring multiple units.

Call Concurrency

The first evaluation is call concurrency. Call concurrency is a comparison of how often multiple calls occur and place additional demand on resources. In the next figure, a concurrent call is when a second unit is dispatched to a separate incident prior to the first unit clearing the scene and becoming available. When two incidents occur simultaneously and a third separate incident emerges, three concurrent calls are present, and so on.

Call Concurrency 2018 - 2022

Call Concurrency					
	2018	2019	2020	2021	2022
Single Incident	73.2%	73.5%	73.3%	70.9%	66.1%
2	22.5%	22.0%	21.7%	24.3%	25.4%
3	3.7%	4.0%	3.8%	4.2%	6.0%
4 or more	0.6%	0.5%	1.3%	0.6%	2.4%

Call Concurrency rates for single incidents have declined since 2019, while multiple incidents occurring in all other areas have risen. This is indicative of a system with increased demand that has not added additional units as demand has grown. The Smyrna Fire Department should monitor call concurrency as it affects multiple performance factors such as response times, reliability rates, unit hour utilization, and effective response force.

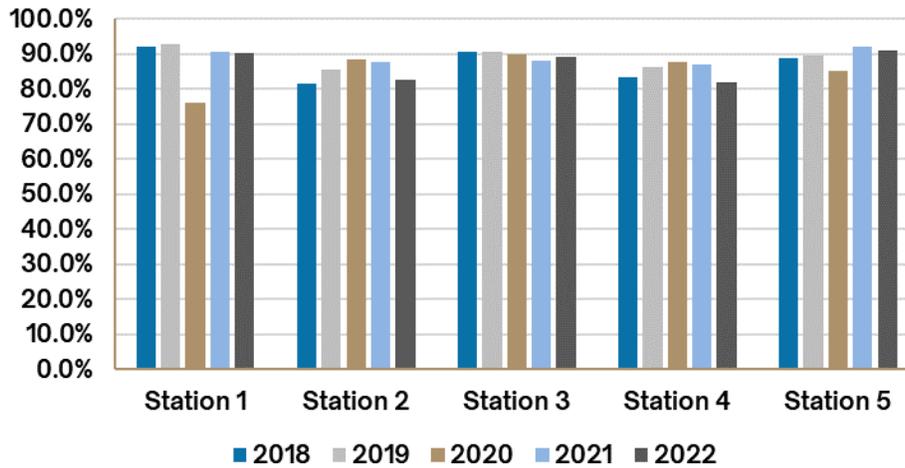
Station Reliability Rates

Station reliability rates measure how often the first due unit was available to respond to an incident within its zone. While this metric has fluctuated year over year when examining each station, a general observation can be reached. Stations 1, 3, and 5 have remained at or near a 90% reliability rate while stations 2 and 4 have experienced rates nearing 80%. Since performance is measured at the 90th percentile, anytime reliability rates decline below 90%, travel and response performance will be affected as units from other stations must travel from their zone to respond to these incidents. This increases travel and response times and leaves additional areas empty with at times, no units available to respond within either zone.

Reliability Rates 2018 - 2022

Reliability Rate of First Due					
	2018	2019	2020	2021	2022
Station 1	92.2%	92.9%	76.1%	90.7%	90.3%
Station 2	81.5%	85.7%	88.3%	87.8%	82.8%
Station 3	90.7%	90.8%	90.0%	88.2%	89.2%
Station 4	83.2%	86.3%	87.6%	87.1%	82.0%
Station 5	88.8%	89.5%	85.1%	92.0%	90.8%

Reliability Rate of First Due



Unit Hour Utilization

Another component considered when evaluating resource reliability is Unit Hour Utilization (UHU). UHU provides an expression of the workload placed on the crew assigned to that unit and describes the amount of time that a unit is not available for response because it is already committed to another incident. The larger the percentage, the greater its utilization, and the less available it is for assignment to subsequent calls for service, training, and ancillary duties. Expressed as a percentage, UHU rates represent the percentage of the total hours of use in a year.

An important factor regarding UHU and response performance is the relationship between how often a unit is available to respond to calls versus the performance metric used to evaluate performance. The next section assesses performance using NFPA 1710 criteria at the 90th percentile. If a unit is unavailable greater than 10% of the time, some portion of the 90th percentile fractile performance will be negatively affected as units from other stations must leave their respective response district and travel into that zone where the unit is unavailable. This degrades response performance, increases wait times on scene, and results in another zone where the first due unit is available and out of position.

Prior to this study, the Smyrna Fire Department used Engine 14 to cover vacancies of out of service engine and truck companies throughout the City. When a crew was using Engine 14, these crews were assigned as the Engine 14 unit and not as their typical primary unit from their station. Because of this, a true calculation of the crews' UHU rates was difficult as the unit moved from one station to another and created holes within the data that subsequently were backfilled with use dates for Engine 14. In the future, the Smyrna Fire Department may consider maintaining the crews with their primary apparatus using that vehicle's Mobile Data Terminal (MDT) so that an accurate UHU rate may be calculated for each crew.

Displayed below are the UHU rates for front line units. It is important to understand that UHU is seeking to measure how busy a crew is and not how many hours a particular apparatus accrues over the course of the year. When too few crews are available for response and UHU levels exceed performance thresholds, the ability of that crew to complete required training, additional duties, and have time for meals or recovery diminishes.

Unit Hour Utilization 2018 - 2022

Unit	# of Incidents	Sum	UHU
E2	7590	2511:36:11	5.7%
E3	7721	2348:53:16	5.4%
R1	6639	2090:28:04	4.8%
TK1	4396	1564:03:11	3.6%
TK4	3285	1519:09:56	3.5%
R4	4254	1321:37:12	3.0%
E5	3628	1314:07:41	3.0%
E14	1838	619:42:50	1.4%
BAT1	867	439:13:39	1.0%

Evaluation of Service Delivery

Response Performance Summary

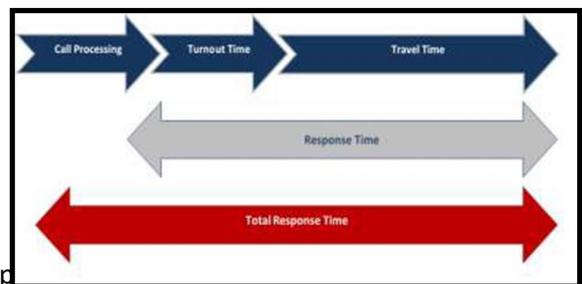
The most visible element of a fire department is its response performance. How quickly units arrive onscene and the efficiency with which they resolve an emergency are typically the only interactions most residents will have with the fire department. NFPA 1710 is the applicable standard for career fire departments to evaluate the Smyrna Fire Department's system performance.

Response time performance is comprised of the following components:

- **Call-Processing Time:** The amount of time between answering a call by the 911 Primary Public Safety Answering Point, or dispatch center, and dispatching resources.
- **Turnout Time:** The interval between response unit notification of the incident and apparatus response.
- **Travel Time:** The amount of time the responding unit spends on the road traveling to the incident until arrival at the scene. This is a function of speed and distance.
- **Response Time:** This time calculation is from dispatching the fire department to the arrival of the first apparatus. Response Time equals the sum of "Turnout Time" and "Travel Time."
- **Total Response Time:** This is the most apparent time to the caller requesting emergency services. Total response time is the time that occurs from when the caller places an emergency call until when the first arriving units are onscene.

Tracking the individual components of response time will enable Smyrna to identify deficiencies and areas for improvement. Once understood, the current performance for Call Processing, Turnout Time, and Travel Time develops response goals and standards that are both relevant and achievable. Fire service best practices recommend fire service organizations monitor and report the components of Total Response Time.

The Time Continuum comprises the abovementioned elements: Call Processing, Turnout Time, and Travel Time. Response Time is a combination of Turnout and Travel Time, and Total Response Time is the sum of all the times starting with the Call- Processing Time, Turnout Time, and Travel Time. The following section includes a more detailed discussion of the components of the Response Time Continuum analyses where possible.



Historically, fire rescue service providers used the performance measurement of average response time to describe the performance levels. The average is a commonly used descriptive statistic, also called the mean of a data set. Averages may not accurately reflect the performance of the entire data set because data outliers can significantly skew averages, especially in small data sets. One extremely good or bad value can skew the “average” for the entire data set. Percentile measurements are a better measure of performance since they show that most of the data set has achieved a particular level of performance. The 90th percentile means that 90% of responses were equal to or better than the performance identified. The other 10% are data outliers, inaccurate data, or situations outside normal operations that delay performance. This compares to the desired performance objective to determine the degree of success in achieving the goal.

When evaluating fractile performance, an important consideration is that each category's results are not additive, meaning that the sum of two or more constituent metrics cannot be simply added together to find the sum. This is because each dataset is discrete and requires individual evaluation, particularly when data quality is an issue. If a metric, such as response time possesses most of its data points, while turnout time is not accurately documented. In that case, a significant difference can exist between the response time calculated using the fractile descriptive and the sum of turnout time and travel.

Evaluating the various response time components using the fractile analysis method requires each component to be evaluated separately, as the available data and the data quality may vary significantly.

Providing an analysis of performance for emergency calls within the Department required removing the following incidents:

- Non-emergency incident types
- Mutual and auto aid given
- Other aid given
- NFIRS call types within the 500, 600, 800, and 900 series
- Cells containing zeros or no value

Quality Improvement / Quality Assurance (QI/QA)

At the time of this report, the Smyrna Fire Department had not established a formal Quality Improvement / Quality Assurance (QI/QA) process for the review of all incident reports, although an informal process is currently in place. The Smyrna Fire Department should establish a formal process that ensures all incident reports are reviewed by an on-duty supervisor and a methodology established for identifying those reports requiring further review and a process for initiating commendation or corrective action when necessary.

Performance Objectives – Baselines

To effectively monitor performance, it is essential to establish parameters for data inclusion. To ensure the analysis is limited to Smyrna responses, the department excluded all outgoing mutual/automatic aid responses and non-emergent calls such as false alarms, service, and good intent calls.

Baseline Performance Tables

All Incidents Baseline Performance 2018-2022				
Call Processing	Turn Out	Travel	Response	Total Response
01:52	02:23	07:51	09:27	10:44

Data was initially captured via ImageTrend, a Records Management System (RMS), and Computer Aided Dispatch (CAD) using Central Square data.

Fire Suppression

The baseline statements of Smyrna Fire Department accurately demonstrate the department’s performance from January 2018 through December 2022. To ensure its Emergency Response Force (ERF) has adequate personnel, the Smyrna Fire Department relies on neighboring fire departments and their use of mutual aid. Smyrna Fire Department’s actual baseline service level performance is as follows:

Fire Baseline Performance 2018-2022					
	Call Processing	Turn Out	Travel	Response	Total Response
Low	01:51	02:28	07:16	09:03	10:35
Moderate	01:53	02:34	05:55	07:39	08:45

Emergency Medical Services

The baseline statements of Smyrna Fire Department accurately demonstrate the department’s performance from January 2018 through December 2022. To ensure its Emergency Response Force (ERF) has adequate personnel, the Smyrna Fire Department relies on neighboring fire departments and their use of mutual aid. Smyrna Fire Department’s actual baseline service level performance is as follows:

If a third-party EMS provider arrives at the scene before the first-due unit, they initiate care, and the staff from the initial fire department company assist as needed. The Smyrna Fire Department relies on Metro Atlanta Ambulance to complete its EMS program’s Emergency Response Facility (ERF) component. A limiting factor with this arrangement is that the Smyrna Fire Department is currently unable to track or document Metro Atlanta Ambulance’s performance metrics in several cases due to how both agencies are dispatched.

EMS Baseline Performance 2018-2022					
	Call Processing	Turn Out	Travel	Response	Total Response
Low	01:45	02:24	07:27	09:02	10:13
Medium	01:30	02:20	06:53	08:27	09:33
High	01:17	02:19	07:20	09:04	09:46

The Smyrna Fire Department is committed to ensuring that all EMS responses are handled professionally, and efficiently.

Technical Rescue

The baseline statements of Smyrna Fire Department accurately demonstrate the department’s performance from April 2020 through March 2023. To ensure its Emergency Response Force (ERF) has adequate personnel, the Smyrna Fire Department relies on neighboring fire departments and their use of mutual aid. Smyrna Fire Department’s actual baseline service level performance is as follows:

The response time and staffing requirements for low-risk technical rescue incidents for the Smyrna Fire Department are well established. The first-due unit, consisting of at least two firefighters and one officer, is expected to arrive within 9 minutes and 30 seconds. Upon arrival, they are responsible for establishing command, assessing the situation, requesting additional resources, and providing necessary medical assistance.

Technical Rescue Baseline Performance 2018-2022					
	Call Processing	Turn Out	Travel	Response	Total Response
Low	02:16	02:50	08:36	09:49	11:04
Medium	01:16	02:04	06:24	08:26	10:30

The Emergency Response Force (ERF) is dispatched for moderate-risk incidents and arrives within 11 minutes and 30 seconds. The ERF consists of 7 firefighters and officers who bring with them technical expertise, first responder medical support, and other resources as required.

While we have established response times and staffing requirements for low- and moderate-risk incidents, we do not have baseline data for high-risk incidents in our department. This is an area of concern for us, and we are actively working to gather the necessary information to better prepare our response teams for these situations.

Hazardous Materials

The baseline statements of Smyrna Fire Department accurately demonstrate the department’s performance from April 2020 through March 2023. To ensure its Emergency Response Force (ERF) has adequate personnel, the Smyrna Fire Department relies on neighboring fire departments and their use of mutual aid. Smyrna Fire Department’s actual baseline service level performance is as follows:

In 90 percent of hazardous materials response incidents deemed low-risk, the first-due unit, which is staffed by at least two firefighters and one officer, arrives within 9 minutes and 30 seconds of the call. This quick response time ensures public safety and minimizes hazardous materials' impact. In cases with moderate-risk hazmat, the first-due unit typically takes around 11 minutes and 30 seconds to arrive. This unit is staffed by at least two firefighters and one officer to ensure a safe and efficient response. When the first- due unit arrives on the scene, they are equipped to take charge and evaluate the situation. They can quickly determine whether additional resources are needed, assess the potential risks, and establish a hot, warm, and cold zone. The department has had very few high-risk hazardous material incidents that require an initial response or ERF, so no baseline data is available for these types of emergencies. However, the first-due unit is well-prepared to handle any situation that arises.

Hazardous Materials Baseline Performance 2018-2022					
	Call Processing	Turn Out	Travel	Response	Total Response
Low	01:59	01:59	09:12	10:33	11:28

Performance Objectives – Benchmarks

Dataset Qualification

Fire Suppression

To determine if the Smyrna Fire Department provides effective and timely responses to fire suppression incidents, performance benchmarks were established using NFPA 1710 standards. The Smyrna Fire Department has set specific standards for their response time based on the level of fire risk. For low-risk fires, the first-due unit, staffed with two firefighters and one officer, should arrive within 8 minutes for 90 percent of all incidents. For moderate-risk fires, an effective response force (ERF) of 17 firefighters and officers should arrive within 10 minutes 30 seconds of initial notification; data for identifying high- risk fires was not available as the department has not had enough high-risk fires to establish baseline data for these types of responses, but data regarding this type of response will be included in subsequent analyses. The first-due unit is equipped to handle various tasks, including providing water and pumping capacity, initiating command, requesting additional resources, and rescuing at-risk victims. These firefighters must be able to complete various tasks, including searching and rescuing at-risk victims and controlling utilities, all while adhering to departmental standard operating procedures and ensuring the safety of responders and the general public.

Finally, the Smyrna Fire Department should establish a plan to regularly collect, analyze, and review data pertaining to property, life, injury, environmental, and other associated losses, for the last three to five years.

Fire Benchmark Performance	
	Response
Low	08:00
Moderate	10:30

Emergency Medical Services

NFPA 1710 standards established emergency medical services response benchmarks. Emergency Medical Services (EMS) response time is critical to life-saving operations. As part of its EMS program, the Smyrna Fire Department ensures that its first-due unit, comprising a minimum of two firefighter/paramedic/EMT, reaches the low-risk situations within 8 minutes. For moderate-risk incidents, four firefighter/paramedics and a supervisor will arrive within 10 minutes, and for high-risk situations, 15 firefighter/paramedics and a supervisor will arrive within 12 minutes and 30 seconds in 90

percent of all cases. The first-due unit has all the required tools and equipment to assess the situation, conduct an initial patient examination, provide medical assistance, and support transport personnel.

EMS Benchmark Performance	
	Response
Low	08:00
Moderate	10:00
High	12:30

Technical Rescue

It is worth noting that while the NFPA 1710 standard does not specify response benchmarks for technical rescue situations, the Smyrna Fire Department has implemented fire suppression benchmarks for such scenarios. Specifically, for 90% of technical rescue incidents, two units, each staffed with a minimum of two firefighters and one officer, will respond with the first unit arriving at the scene within 8 minutes and 30 seconds. This unit should then be able to establish command, evaluate the situation, request additional resources as needed, and provide advanced life support to any victim without endangering response personnel.

For moderate-risk incidents, the Emergency Response Force (ERF) - consisting of 6 firefighters and officers - should arrive within 10 minutes and 30 seconds. Insufficient data was available to calculate the response time to high-risk special operations incidents. The ERF should appoint a site safety officer and ensure patient contact, staging, and apparatus set-up, while also providing technical expertise and skills during rescue operations and offering first responder medical support.

The Smyrna Fire Department has set response benchmarks aligned with industry standards and designed to ensure the safety and well-being of all involved parties. We remain committed to upholding these benchmarks and continually improving our response capabilities to serve the community better.

Technical Rescue Benchmark Performance	
	Response
Low	08:30
Moderate	10:30
High	12:30

Hazardous Materials

NFPA 1710 does not identify response benchmarks for hazardous materials; however, the Department has adopted 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 three firefighters and one officer, shall be 9 minutes and 30 seconds. The first-due unit shall be capable of establishing command; sizing up and assessing the situation to determine the presence of a potentially hazardous material or explosive device; determining the need for additional resources; estimating the potential harm without intervention; and 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 six firefighters and an officer, shall be 10 minutes and 30 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 including officers, shall be 12 minutes and 30 seconds. The ERF shall be capable of providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident following department policy.

Hazardous Materials Benchmark Performance	
	Response
Low	09:30
Moderate	10:30
High	12:30

Performance Gaps – Baseline to Benchmark Time Gap

Fire Suppression

Low-Risk Fire

Fire Baseline vs Benchmark Performance			
	Response		
	Baseline - 1st Arriving	Benchmark	ERF
Low	09:03	08:00	4

Moderate-Risk Fire

Fire Baseline vs Benchmark Performance			
Moderate	Response		
	Baseline - 1st Arriving	Benchmark	ERF
	07:39	10:30	17

Emergency Medical Services

Low-Risk EMS

EMS Baseline vs Benchmark Performance			
Low	Response		
	Baseline - 1st Arriving	Benchmark	ERF
	09:02	08:00	4

Moderate-Risk EMS

EMS Baseline vs Benchmark Performance			
Moderate	Response		
	Baseline - 1st Arriving	Benchmark	ERF
	08:27	10:00	5

High-Risk EMS

EMS Baseline vs Benchmark Performance			
High	Response		
	Baseline - 1st Arriving	Benchmark	ERF
	09:04	12:30	15

Technical Rescue

Low-Risk Rescue

Technical Rescue Baseline vs Benchmark Performance			
Low	Response		
	Baseline - 1st Arriving	Benchmark	ERF
	09:49	08:30	4

Moderate-Risk Rescue

Technical Rescue Baseline vs Benchmark Performance			
Moderate	Response		
	Baseline - 1st Arriving	Benchmark	ERF
	08:26	10:30	6

Hazardous Materials

Low-Risk Hazardous Materials

Hazardous Materials Baseline vs Benchmark Performance			
Low	Response		
	Baseline - 1st Arriving	Benchmark	ERF
	10:33	08:00	4

Community Areas for Program Delivery and Coverage Improvement

A review of historical response data assists in identifying areas needing improvement. One area that could be improved is turnout times, specifically for fire responses. The gaps between baseline and benchmark performance for total response times are approximately one minute. However, aggregate turnout times remain over 2 minutes at the 90th percentile.

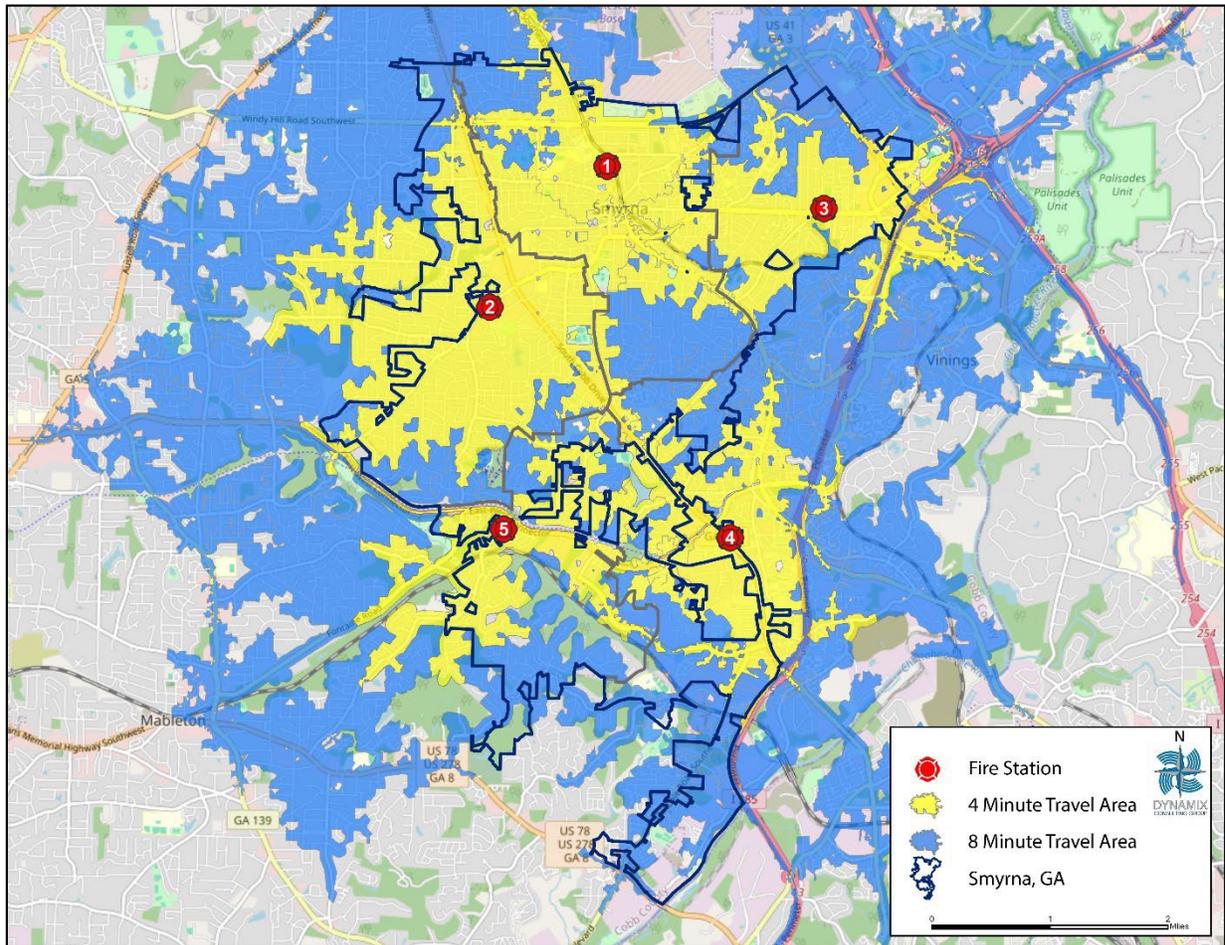
Another area for potential improvement is in alarm handling for moderate-risk technical rescue calls. A comparison between alarm handling of low-risk and moderate-risk technical rescue calls and alarm handling across all risk levels and categories should be noted. The low-risk technical rescue has a more extensive data set. It shows 2 minutes and 50 seconds alarm handling times at the 90th percentile. Moderate-risk technical rescue calls show an alarm handling time of 2 minutes and 4 seconds at the 90th percentile. This could be explained partially by the smaller data set of 44 moderate-risk

technical rescue calls over the three years compared to 882 low-risk calls over the same period.

Response Coverage

As a rule of thumb, theoretical emergency response times are calculated using Esri's Living Atlas road network. The following map shows the department area 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 department's historical data shows a longer response time average at the 90th percentile.

Four-Minute Response Area



Recommendations for Improved Effectiveness in Deployment and Coverage

1. **Alarm Handling:** The fire department does not provide dispatch services; that task is outsourced to Smyrna Police Communications. Due to this arrangement, there are certain limitations to the department's control over alarm handling performance. However, they strive to maintain a collaborative and cooperative work environment to ensure the safety and security of the community.
2. **Geographic Coverage:** The department will thoroughly analyze the growth trends to determine the workforce's current and future requirements and the optimal locations for their stations.
3. Using the information contained within this initial CRA: SOC report, a program should be established to formally determine the impacts of CRR efforts within the community based on the information contained within this CRA: SOC document, as well as benchmark adopted goals against performance.
4. The Smyrna Fire Department should set specific, targeted, and achievable goals based on performance and conduct a formal and documented review at least annually.
5. Using this document, the Smyrna Fire Department should identify specific risks and behaviors within the community, and the demographics of those groups, and develop programs specific to the risks and behaviors present within the community.
6. Once program goals and objectives are established, the department should evaluate staffing levels within the program to ensure adequate staffing. As part of the formal annual review and reporting process, the impacts of the public education program should be evaluated and compared against CRR efforts to include facilities with large loss potential and high risk audiences, identifying current and future potential partnerships with those organizations serving at risk groups.
7. It is recommended that a daily quality assurance program be implemented to ensure the accuracy and validity of future data. Data fields should be included to indicate that each report was reviewed, whether the response was emergent, the risk category of that incident, and if the response encountered unusual issues and not be reported in the final performance evaluation.
8. Smyrna Fire Department should establish response priorities for nonemergency service requests from healthcare facilities as the department's mission is emergency response. Many communities have struggled with increased

nonemergency service demand and workload when the nature of the relationship between such facilities and emergency services is not well defined.

9. All homes in the Smyrna Fire Department response district should be encouraged to install fire detection devices properly. In many areas across the United States, the Assistance to Firefighters Grant has helped departments with funding for purchasing, installing, or replacing smoke alarms in residential structures. This type of federal funding usually comes with a small cost-share payment and offers many benefits to a community.
 10. The Smyrna Fire Department should produce a quarterly or annual report to assess the impacts and associated cost savings related to Community Risk Reduction efforts and establish loss performance goals to determine if performance gaps exist.
 11. The Smyrna Fire Department should produce a quarterly or annual report to assess the impacts and associated cost savings related to Fire Investigation / Origin and Cause efforts and establish loss performance goals to determine if performance gaps exist.
 12. The Smyrna Fire Department should produce a quarterly or annual report to assess the impacts and associated cost savings related to Public Fire Education efforts and tie performance goals to emergency response and performance to determine if performance gaps exist.
 13. The Smyrna Fire Department should regularly collect, validate, analyze, and evaluate the impact of fire detection and suppression systems within the City.
 14. The Smyrna Fire Department should monitor call concurrency as it affects multiple performance factors such as response times, reliability rates, unit hour utilization, and effective response force.
 15. The Smyrna Fire Department should establish a plan to regularly collect, analyze, and review data pertaining to property, life, injury, environmental, and other associated losses, for the last three to five years.
 16. The Smyrna Fire Department should consider facilitating a Strategic Plan to prioritize the work plan in the future based on the findings of this CRA: SOC.
 17. The Smyrna Fire Department may consider the creation of a reserve fund for unforeseen major repairs or additional preventive maintenance to ensure the highest performance and greatest usable life for all apparatus.
 18. the Smyrna Fire Department may consider maintaining the crews with their primary apparatus using that vehicle's Mobile Data Terminal (MDT) so that an accurate UHU rate may be calculated for each crew.
-

Performance Maintenance and Improvement Plans

Compliance Team / Responsibility

The department must consistently track and analyze service level baselines to ensure optimal performance and customer satisfaction. To achieve this objective, the compliance team, consisting of the Accreditation Manager, Deputy Chief, and Fire Marshal, must work in tandem and implement effective monitoring strategies. By doing so, the department can maintain high levels of service quality and meet the needs of its stakeholders.

Performance Evaluation and Compliance Strategy

Regularly keeping track of service level baselines is crucial for the department to achieve its current service level objectives. To achieve this objective, the compliance team consisting of the Accreditation Manager, command staff, and Fire Marshal must work together effectively.

The Deputy Chief will quarterly summarize the service level objectives and compare current results to previous baseline performance. This allows the fire department to evaluate the difference in outcomes between periods. The Deputy Chief will also consider response demands and identify risks within each zone to determine if any changes impact the established service level objectives or the Standards of Cover document.

The Fire Prevention Division and crews will ensure pre-plans are current and evaluate the accuracy of the department's risk profile matrix for the assigned pre-fire plan. If any recommendations for adjustments are necessary, they will be submitted to the Fire Marshal.

Finally, the Fire Marshal will review new construction permits and development orders every quarter to identify emerging growth trends that could impact service delivery. This ensures that the fire department is always prepared to respond effectively to any situation.

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

The Deputy Chief will provide a summary report of service level objectives, including comparing performance to benchmark performance goals and gap analysis. The report will be presented in the data tables format, with a narrative summary that includes a breakdown of response performance and an explanation for inconsistencies and negative trends. The Accreditation Manager will review the quarterly report with the Deputy Chief to discuss performance gaps 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

Every six months, the Fire Marshal will provide a written summary report of new construction and development orders and a summary report of pre-fire planning and risk assessment 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 Smyrna City Council after final approval from the fire chief.

Annually

The annual report will comprise 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 and 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 toward achieving targets. The final report will be presented for final approval to the fire chief.

Constant Improvement Strategy

Keeping track of performance and comparing it to benchmarks is crucial for identifying areas that need improvement. Performance evaluations and compliance meetings must be conducted regularly to develop effective progress strategies. The Standards of Cover must be integrated into the strategic planning process, and performance measurements should be reported to the Smyrna City Council annually. This is essential to ensure that all necessary components are included in the annual budgeting process and to work towards achieving continual improvement.

Correlation of the CRA: SOC to CFAI Accreditation Model

CFAI FESSAM 9th Edition - Performance Indicator/ Core Competency			CRA: SOC Page(s)
Category I - Governance and Administration			
	1A.4	The governing body of the agency periodically reviews and approves services and programs.	10
	1A.7	The governing body or designated authority approves the organizational structure that carries out the agency's mission.	10
	1A.9	A communication process is in place between the governing body and the administrative structure of the agency	10
	1B.2	Financial, equipment, and personnel resource allocation reflects the agency's mission, goals, and objectives.	10
Category II Assessment and Planning			
	2A.1	Service area boundaries for the agency are identified, documented, and legally adopted by the authority having jurisdiction.	15
	2A.2	Boundaries for other service responsibility areas, such as automatic aid, mutual aid, and contract areas, are identified, documented, and appropriately approved by the authority having jurisdiction.	142

CFAI FESSAM 9th Edition - Performance Indicator/ Core Competency			CRA: SOC Page(s)
CC	2A.3	The agency has a documented and adopted methodology for organizing the response area(s) into geographical planning zones.	16
CC	2A.4	The agency assesses the community by planning zone and considers the population density within planning zones and population areas, as applicable, for the purpose of developing total response time standards.	119
	2A.5	Data that includes property, life, injury, environmental, and other associated losses, as well as the human and physical assets preserved and or saved, are recorded for a minimum of three (initial accreditation agencies) to five (currently accredited agencies) immediately previous years.	131
	2A.6	The agency utilizes its adopted planning zone methodology to identify response area characteristics such as population, transportation systems, area land use, topography, geography, geology, physiography, climate, hazards and risks, and service provision capability demands.	119
	2A.7	Significant socio-economic and demographic characteristics for the response area are identified, such as key employment types and centers, assessed values, blighted areas, and population earning characteristics.	49
	2A.8	The agency identifies and documents all safety and remediation programs, such as fire prevention, public education, injury prevention, public health, and other similar programs, currently active within the response area.	84
	2A.9	The agency identifies critical infrastructure within the planning zones.	19
CC	2B.1	The agency has a documented and adopted methodology for identifying, assessing, categorizing, and classifying risks throughout the community or area of responsibility.	105
	2B.2	The historical emergency and non-emergency service demand frequency for a minimum of three immediately previous years and the future probability of emergency and non-emergency service demands, by service type, have been identified and documented by planning zone.	131

CFAI FESSAM 9th Edition - Performance Indicator/ Core Competency			CRA: SOC Page(s)
	2B.3	Event consequence loss and save data that includes property, life, injury, environmental, and other losses, and saves are assessed for three (initial accreditation agencies) to five (currently accredited agencies) immediately previous years.	151
CC	2B.4	The agency's risk identification, analysis, categorization, and classification methodology has been utilized to determine and document the different categories and classes of risks within each planning zone.	105
CC	2B.5	Fire protection and detection systems are incorporated into the risk analysis.	105
	2B.6	The agency assesses critical infrastructure within the planning zones for capabilities and capacities to meet the demands posed by the risks.	19
	2C.1	Given the levels of risks, area of responsibility, demographics, and socio-economic factors, the agency has determined, documented, and adopted a methodology for the consistent provision of service levels in all service program areas through response coverage strategies.	79
	2C.2	The agency has a documented and adopted methodology for monitoring its quality of emergency response performance for each service type within each planning zone and total response area.	146
	2C.3	Fire protection systems and detection systems are identified and considered in the development of appropriate response strategies.	105
	2C.4	A critical task analysis of each risk category and risk class has been conducted to determine the first due and effective response force capabilities, and a process is in place to validate and document the results.	119
CC	2C.5	The agency has identified the total response time components for delivery of services in each service program area and found those services consistent and reliable within the entire response area.	148
	2C.6	The agency has identified the total response time components for delivery of services in each service program area and assessed those services in each planning zone.	148

CFAI FESSAM 9th Edition - Performance Indicator/ Core Competency			CRA: SOC Page(s)
	2C.7	The agency has identified efforts to maintain and improve its performance in the delivery of its emergency services for the past three (initial accreditation agencies) to five (currently accredited agencies) immediately previous years.	151
	2C.8	The agency’s resiliency has been assessed through its deployment policies, procedures, and practices.	143
CC	2D.1	The agency has documented and adopted methodology for assessing performance adequacies, consistencies, reliabilities, resiliencies, and opportunities for improvement for the total response area.	131
	2D.2	The agency continuously monitors, assesses, and internally reports, at least quarterly, on the ability of the existing delivery system to meet expected outcomes and identifies the remedial actions most in need of attention.	160
CC	2D.3	The performance monitoring methodology identifies, at least annually, future external influences, altering conditions, growth, and development trends, and new or changing risks, for purposes of analyzing the balance of service capabilities with new conditions or demands.	161
	2D.4	The performance monitoring methodology supports the annual assessment of the efficiency and effectiveness of each service program at least annually in relation to industry research.	161
	2D.5	Impacts of incident mitigation program efforts, (such as community risk reduction, public education, and community service programs), are considered and assessed in the monitoring process.	84
CC	2D.6	Performance gaps for the total response area, such as inadequacies, inconsistencies, and negative trends, are determined at least annually.	160

CFAI FESSAM 9th Edition - Performance Indicator/ Core Competency			CRA: SOC Page(s)
CC	2D.7	The agency has systematically developed a continuous improvement plan that details actions to be taken within an identified timeframe to address existing gaps and variations.	161
	2D.8	On at least an annual basis, the agency formally notifies the authority having jurisdiction (AHJ) of any gaps in the operational capabilities and capacity of its current delivery system to mitigate the identified risks within its service area, as identified in its standards of cover.	161
	2D.9	On at least an annual basis, the agency formally notifies the authority having jurisdiction (AHJ) of any gaps in the operational capabilities and capacity of its current delivery system to mitigate the identified risks within its service area, as identified in its standards of cover.	161
	4A.5	The annual budget, short and long-range financial planning, and capital expenditures are consistent with agency priorities and support achievement of the agency's strategic plan and goals and objectives.	12
CC	4C.1	Given current and anticipated revenues, the agency can maintain adopted levels of service.	12
	4C.5	The agency projects future asset maintenance costs are projected with related funding plans.	12
CC	5A.1	The agency conducts a formal and documented appraisal, at least annually, to determine the impacts of the community risk reduction program and its efforts in risk reduction based on the community risk assessment, standards of cover, and measures performance against adopted loss reduction goals.	84
	5A.7	The agency sets specific, targeted, and achievable annual loss reduction benchmarks for fire incidents and fire casualties based upon the community risk assessment and baseline performance.	84

CFAI FESSAM 9th Edition - Performance Indicator/ Core Competency			CRA: SOC Page(s)
CC	5B.1	The public education program (such as development and delivery) targets specific risks, behaviors, and audiences identified through incident, demographic, program data analysis, community risk assessment, and standards of cover.	86
CC	5B.3	The agency conducts a formal and documented appraisal, at least annually, to determine the impacts of the public education program and its efforts in risk reduction based on community assessment, standards of cover, and measures performance.	86
	5B.4	There are programs in place that identify large loss potential or high risk audiences such as low socio-economic status, age, cultural / ethnic differences where appropriate), forge partnerships with those who serve those constituencies, and enable specified pro- grams to mitigate fires and other emergency incidents (such as home safety visits, smoke alarm installations, free bicycle helmet programs, falls prevention programs, etc.).	86
CC	5C.5	The agency conducts a formal and documented appraisal, at least annually, to determine the impacts of the fire investigation, origin, and cause program and its efforts to reduce fires based on community assessment, standards of cover, and measures performance.	85
CC	5D.1	The agency publishes an all-hazards plan that defines roles and responsibilities of all participating departments and/or external agencies. The agency identifies and authorizes an appropriate multi-agency organizational structure to carry out the all-hazards plan predetermined functions and duties.	84
	5D.6	The agency conducts and documents a vulnerability assessment and has operational plans to protect the agency's specific critical infrastructure, including but not limited to materials, supplies, apparatus, facilities security, fuel, and information systems.	124
	5D.7	The agency has a documented Continuity of Operations Plan (COOP) that is reviewed and updated at least every 5 years, to ensure essential operations are maintained.	39
CC	5E.1	Given its standards of cover and emergency deployment objectives, the agency meets its staffing, response time, station(s), pumping capacity, apparatus, and equipment	119

CFAI FESSAM 9th Edition - Performance Indicator/ Core Competency			CRA: SOC Page(s)
		deployment objectives for each type and magnitude of fire suppression incident(s).	
CC	5E.3	The agency conducts a formal and documented appraisal, at least annually, to determine the effectiveness of the fire suppression program and its impact on meeting the agency's goals and objectives.	161
CC	5F.1	Given its standards of cover and emergency deployment objectives, the agency meets its staffing, response time, station(s), apparatus, and equipment deployment objectives for each type and magnitude of emergency medical incident(s).	148
CC	5F.4	The agency creates and maintains a patient care record, hard copy or electronic, for each patient encountered. This report contains provider impression, patient history, data regarding treatment rendered, and the patient disposition recorded. The agency must make reasonable efforts to protect reports from public access and maintain them as per local, state/provincial, and federal records retention requirements.	131
	5F.6	The agency has a quality improvement/quality assurance program (QI/QA) in place to improve system performance and patient outcomes.	146
CC	5F.7	The agency conducts a formal and documented appraisal, at least annually, to determine the effectiveness of the EMS program and its impact on meeting the agency's goals and objectives. This should include an evaluation of the agency's standard operating procedures, protocols, and equipment.	161
	5F.8	The agency has developed a plan or has already implemented a cardio-pulmonary resuscitation (CPR) and public access defibrillation program for the community.	86
CC	5G.1	Given the agency's standards of cover and emergency deployment objectives, the agency meets its staffing, response time, station(s), apparatus, and equipment deployment objectives for each type and level of risk of a technical rescue incident(s).	148

CFAI FESSAM 9th Edition - Performance Indicator/ Core Competency			CRA: SOC Page(s)
	5G.2	The agency establishes minimum training and operational standards, compliant with local, state/provincial, and national standards, and that all personnel who function in the technical rescue program meet training and operational standards.	82
CC	5G.3	The agency conducts a formal and documented appraisal, at least annually, to determine the effectiveness of the technical rescue program and its impact on meeting the agency's goals and objectives. This appraisal must include a full-scale evaluation of the response components, including mutual aid, when part of the deployment model.	161
CC	5H.1	Given the agency's standards of cover and emergency deployment objectives, the agency meets its staffing, response time, station(s), apparatus, and equipment deployment objectives for each type and magnitude of hazardous materials incident(s).	148
	5H.2	The agency maintains appropriate training, operations policies, and documentation that response personnel are compliant with all applicable hazardous materials regulations and laws.	83
CC	5H.3	The agency conducts a formal and documented appraisal, at least annually, to determine the effectiveness of the hazardous materials program and its impact on meeting the agency's goals and objectives. This appraisal must include a comprehensive evaluation of the response components, including mutual aid, when part of the deployment model.	148
CC	5K.1	Given its standards of cover and emergency deployment objectives, the agency meets its staffing, response time, station(s), apparatus, and equipment deployment objectives for each type and magnitude of wildland fire services incident.	161
CC	5K.2	The agency conducts a formal and documented appraisal, at least annually, to determine the effectiveness of the wildland fire services program, to include suppression, mitigation, educational activities, and its impact on meeting the agency's goals and objectives.	79

CFAI FESSAM 9th Edition - Performance Indicator/ Core Competency			CRA: SOC Page(s)
	5K.3	The agency has developed a wildland risk assessment including: a fuel management plan, fire adaptive communities plan, and an inspection and code enforcement program.	79
CC	5K.4	The agency conducts or participates in a wildland fire training and certification/qualification program that meets wildland fire services operational needs and complies with local, state/provincial, and national/international standards.	79

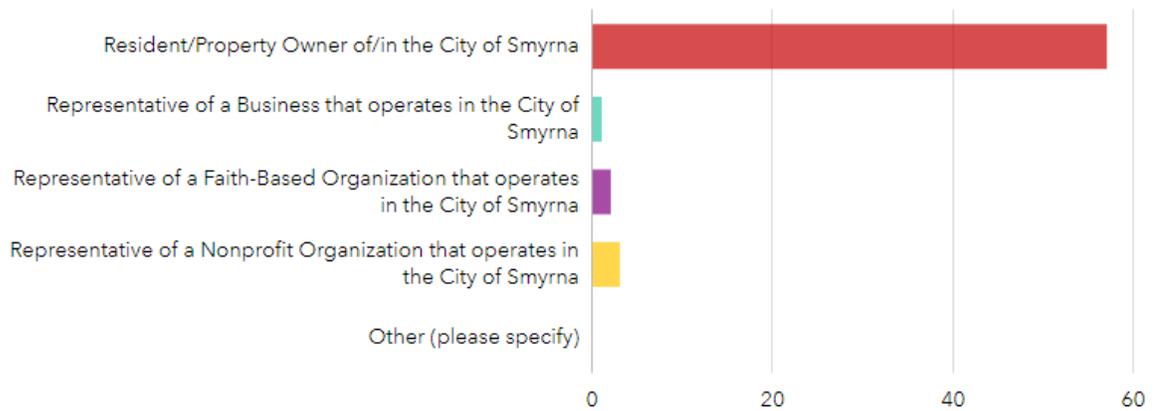
Conclusion

Dynamix Consulting Group sincerely hopes the information in this report serves to its fullest extent and that the emergency services that the Smyrna Fire Department provides to the community will improve by its implementation.

Appendix A. Community Survey

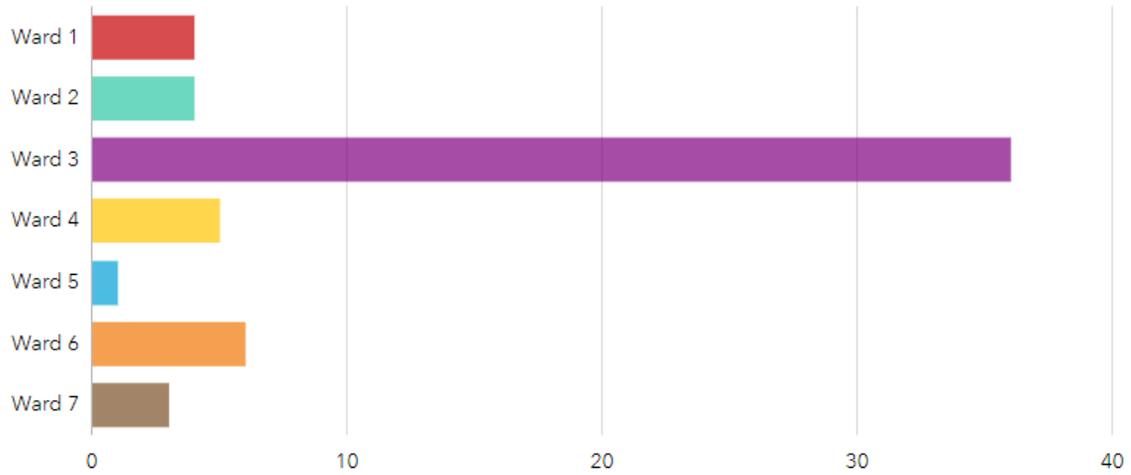
The Smyrna Fire Department Community Survey was open for participation from June 1, 2023, through July 19, 2023. A total of 59 community members participated in the survey. The survey questions and answers are as follows:

I am a:



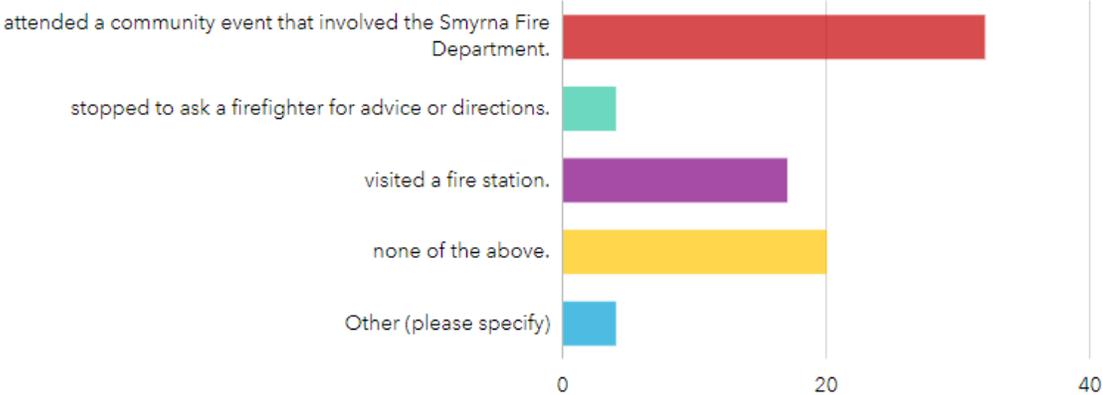
Answers	Count	Percentage
Resident/Property Owner of/in the City of Smyrna	57	96.61%
Representative of a Business that operates in the City of Smyrna	1	1.69%
Representative of a Faith-Based Organization that operates in the City of Smyrna	2	3.39%
Representative of a Nonprofit Organization that operates in the City of Smyrna	3	5.08%
Other (please specify)	0	0%

Please select the corresponding council ward based on your previous response:



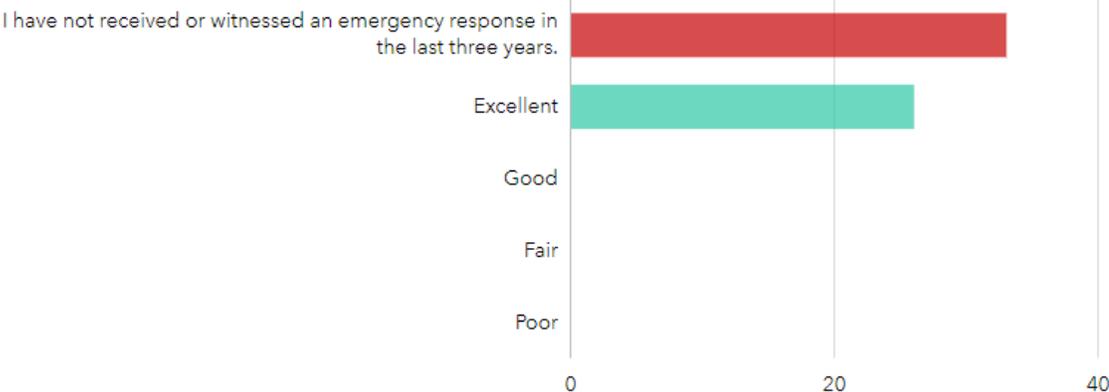
Answers	Count	Percentage
Ward 1	4	6.78%
Ward 2	4	6.78%
Ward 3	36	61.02%
Ward 4	5	8.47%
Ward 5	1	1.69%
Ward 6	6	10.17%
Ward 7	3	5.08%

In the last five years, I have...



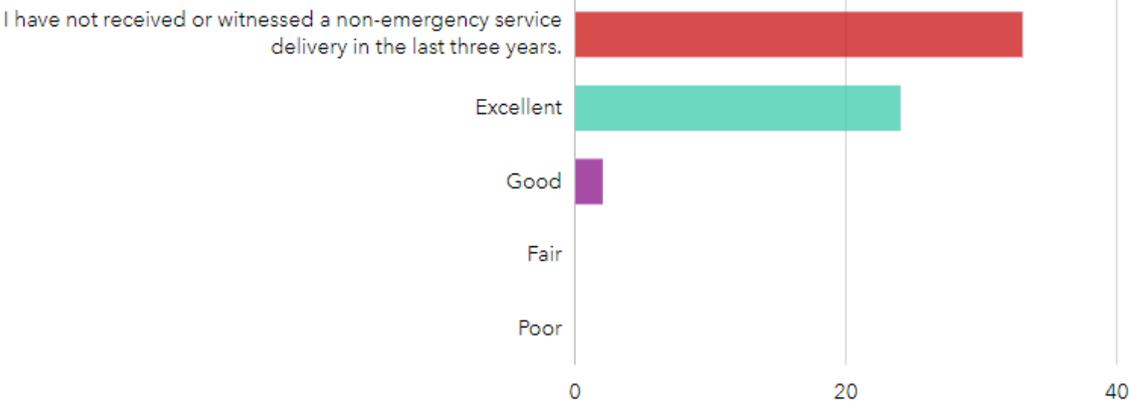
Answers	Count	Percentage
attended a community event that involved the Smyrna Fire Department.	32	54.24%
stopped to ask a firefighter for advice or directions.	4	6.78%
visited a fire station.	17	28.81%
none of the above.	20	33.9%
Other (please specify)	4	6.78%

Emergency Response



Answers	Count	Percentage
I have not received or witnessed an emergency response in the last three years.	33	55.93%
Excellent	26	44.07%
Good	0	0%
Fair	0	0%
Poor	0	0%

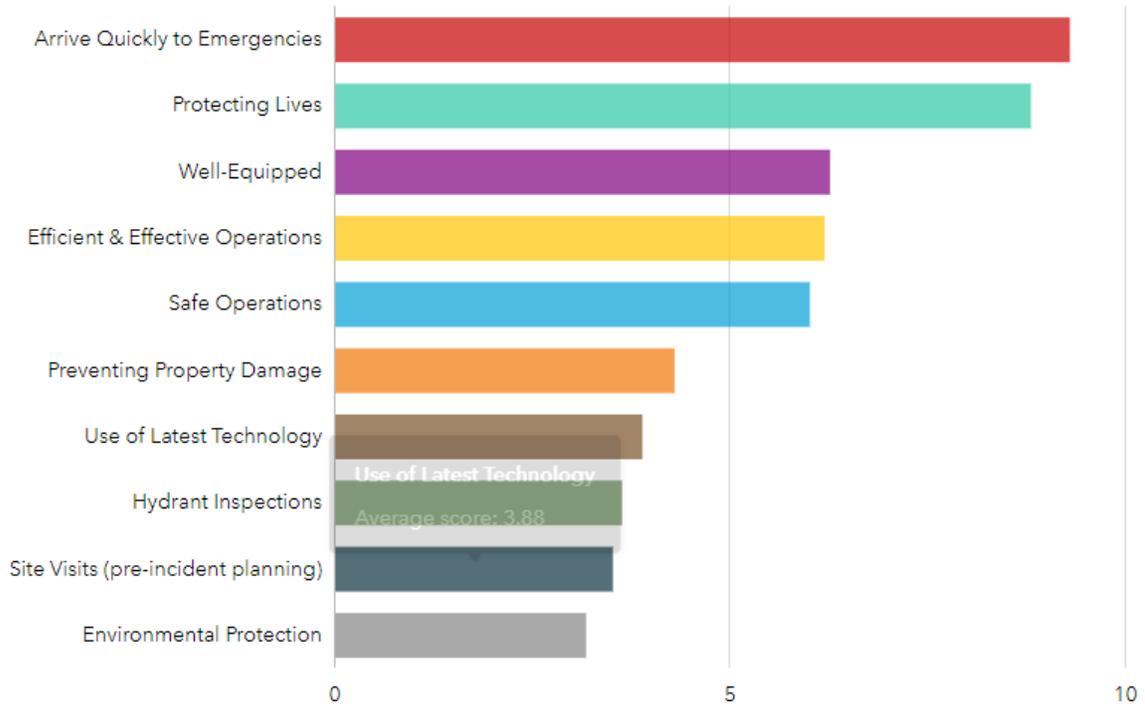
Non-Emergency Response



Answers	Count	Percentage
I have not received or witnessed a non-emergency service delivery in the last three years.	33	55.93%
Excellent	24	40.68%
Good	2	3.39%
Fair	0	0%
Poor	0	0%

Expectations - Field Operations

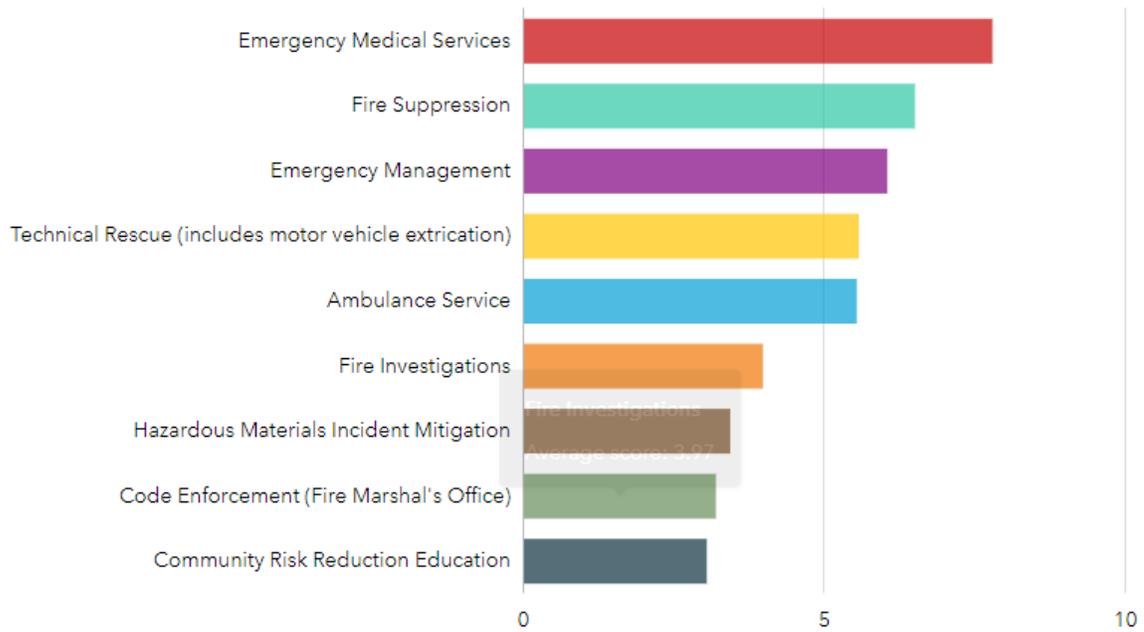
Please rank the following in order from most to least important.



Rank	Answers	1	2	3	4	5	6	7	Average score
1	Arrive Quickly to Emergencies	54.24% 32	35.59% 21	5.08% 3	1.69% 1	1.69% 1	0% 0	0% 0	9.29
2	Protecting Lives	35.59% 21	37.29% 22	13.56% 8	3.39% 2	8.47% 5	0% 0	0% 0	8.80
3	Well-Equipped	5.08% 3	6.78% 4	13.56% 8	30.51% 18	10.17% 6	16.95% 10	6.78% 4	6.25
4	Efficient & Effective Operations	1.69% 1	10.17% 6	23.73% 14	20.34% 12	11.86% 7	10.17% 6	1.69% 1	6.19
5	Safe Operations	0% 0	5.08% 3	25.42% 15	16.95% 10	18.64% 11	10.17% 6	10.17% 6	6.00
6	Preventing Property Damage	1.69% 1	0% 0	8.47% 5	8.47% 5	16.95% 10	11.86% 7	11.86% 7	4.29
7	Use of Latest Technology	1.69% 1	0% 0	6.78% 4	6.78% 4	6.78% 4	13.56% 8	22.03% 13	3.88
8	Hydrant Inspections	0% 0	0% 0	0% 0	6.78% 4	3.39% 2	18.64% 11	23.73% 14	3.63
9	Site Visits (pre-incident planning)	0% 0	5.08% 3	3.39% 2	3.39% 2	6.78% 4	10.17% 6	15.25% 9	3.51
10	Environmental Protection	0% 0	0% 0	0% 0	1.69% 1	15.25% 9	8.47% 5	8.47% 5	3.17

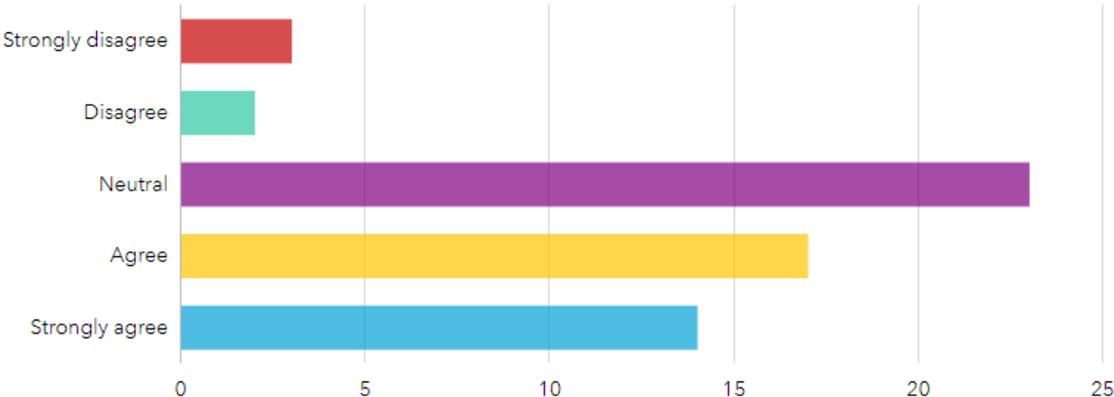
Program Priority

Please rank the programs in order from most to least important.



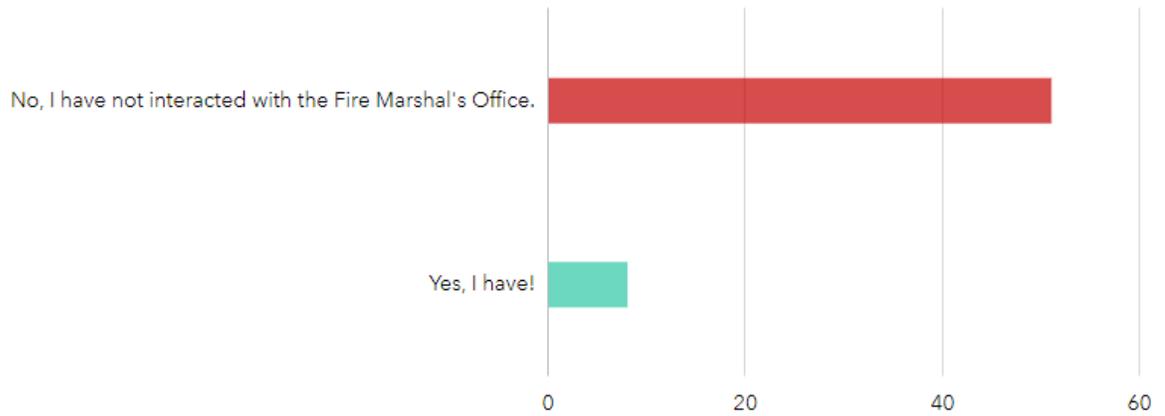
Rank	Answers	1	2	3	4	5	6	7	Average score
1	Emergency Medical Services	40.68% 24	25.42% 15	25.42% 15	0% 0	1.69% 1	3.39% 2	1.69% 1	7.78
2	Fire Suppression	23.73% 14	13.56% 8	10.17% 6	25.42% 15	11.86% 7	6.78% 4	1.69% 1	6.49
3	Emergency Management	18.64% 11	10.17% 6	18.64% 11	11.86% 7	13.56% 8	13.56% 8	6.78% 4	6.03
4	Technical Rescue (includes motor vehicle extrication)	3.39% 2	20.34% 12	16.95% 10	18.64% 11	11.86% 7	5.08% 3	10.17% 6	5.56
5	Ambulance Service	6.78% 4	20.34% 12	16.95% 10	15.25% 9	15.25% 9	1.69% 1	3.39% 2	5.53
6	Fire Investigations	0% 0	6.78% 4	5.08% 3	3.39% 2	15.25% 9	30.51% 18	16.95% 10	3.97
7	Hazardous Materials Incident Mitigation	0% 0	0% 0	3.39% 2	10.17% 6	13.56% 8	22.03% 13	16.95% 10	3.42
8	Code Enforcement (Fire Marshal's Office)	3.39% 2	3.39% 2	1.69% 1	6.78% 4	3.39% 2	13.56% 8	23.73% 14	3.19
9	Community Risk Reduction Education	3.39% 2	0% 0	1.69% 1	8.47% 5	13.56% 8	3.39% 2	18.64% 11	3.03

The Smyrna Fire Department provides appropriate community education and outreach programs.



Answers	Count	Percentage
Strongly disagree	3	5.08%
Disagree	2	3.39%
Neutral	23	38.98%
Agree	17	28.81%
Strongly agree	14	23.73%

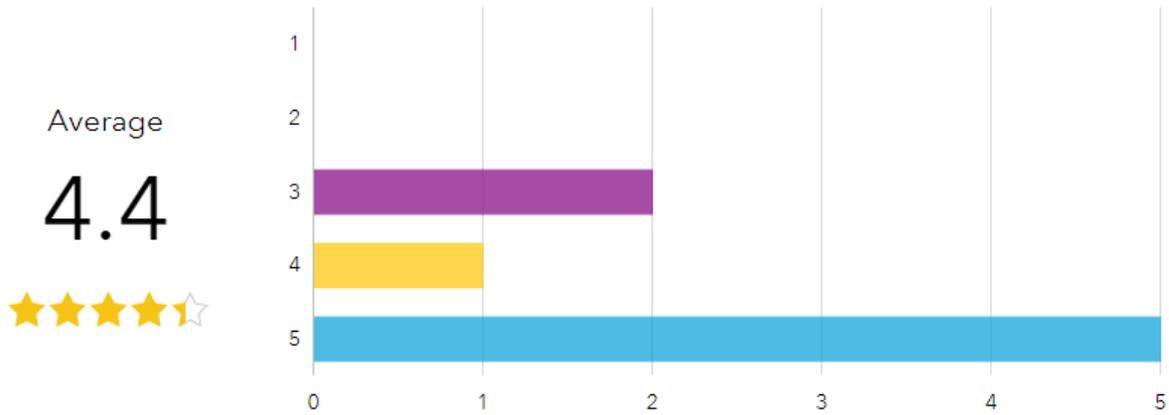
Fire Marshal's Office



Answers	Count	Percentage
No, I have not interacted with the Fire Marshal's Office.	51	86.44%
Yes, I have!	8	13.56%

Answered: 5

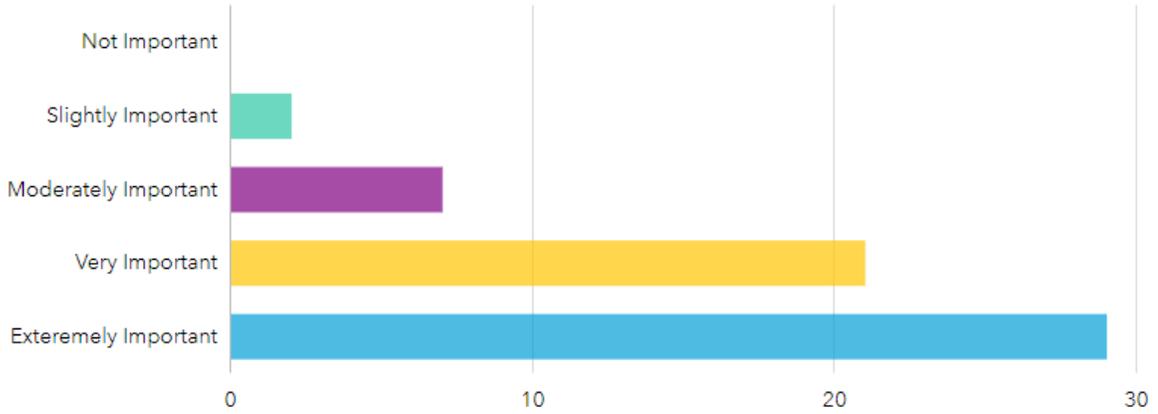
Please rate your experience:



Answers	Count	Percentage
1	0	0%
2	0	0%
3	2	3.39%
4	1	1.69%
5	5	8.47%

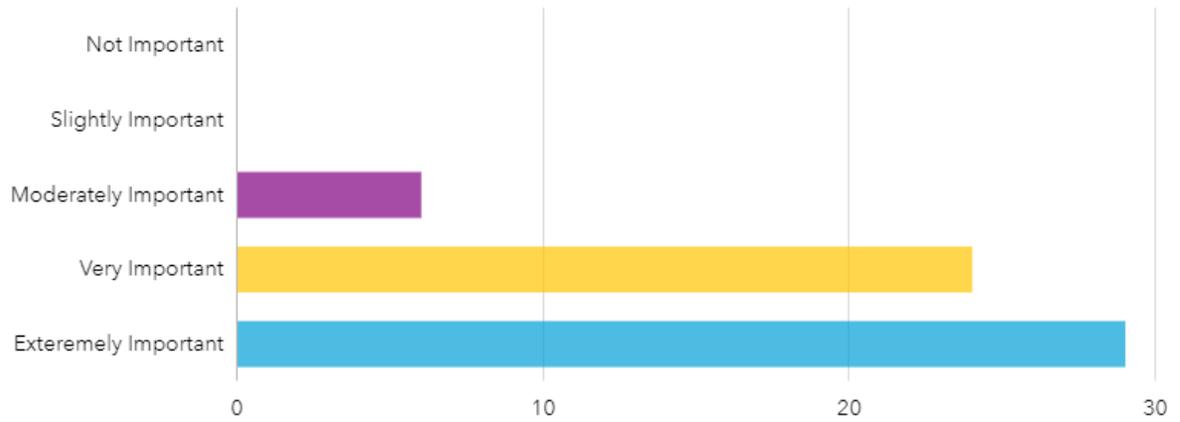
Cultural Commitments

Professional Development (education & training)



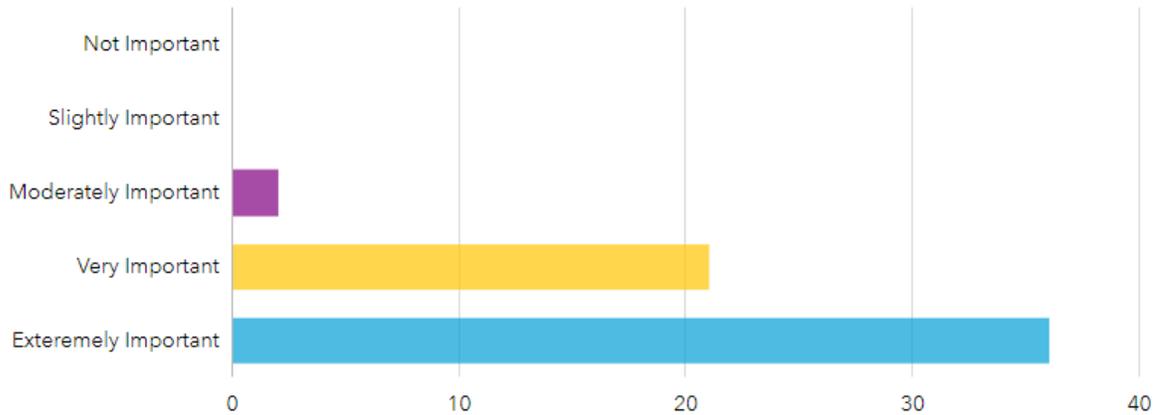
Answers	Count	Percentage
Not Important	0	0%
Slightly Important	2	3.39%
Moderately Important	7	11.86%
Very Important	21	35.59%
Exteremely Important	29	49.15%

Employee Retention



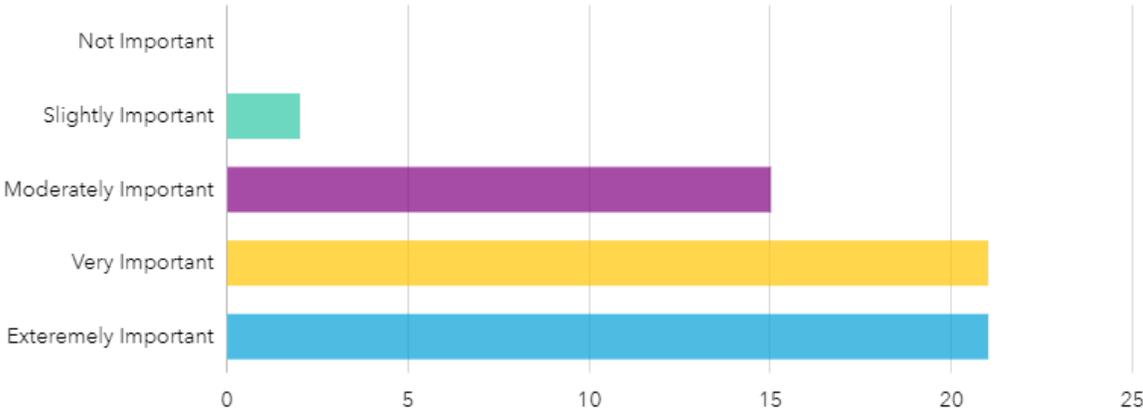
Answers	Count	Percentage
Not Important	0	0%
Slightly Important	0	0%
Moderately Important	6	10.17%
Very Important	24	40.68%
Extremely Important	29	49.15%

Kind, Caring & Courteous Staff



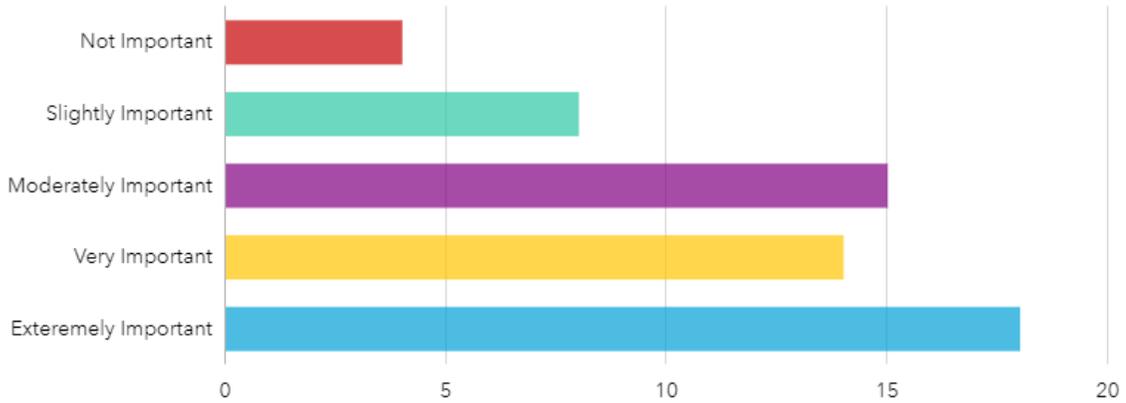
Answers	Count	Percentage
Not Important	0	0%
Slightly Important	0	0%
Moderately Important	2	3.39%
Very Important	21	35.59%
Exteremely Important	36	61.02%

Community Engagement



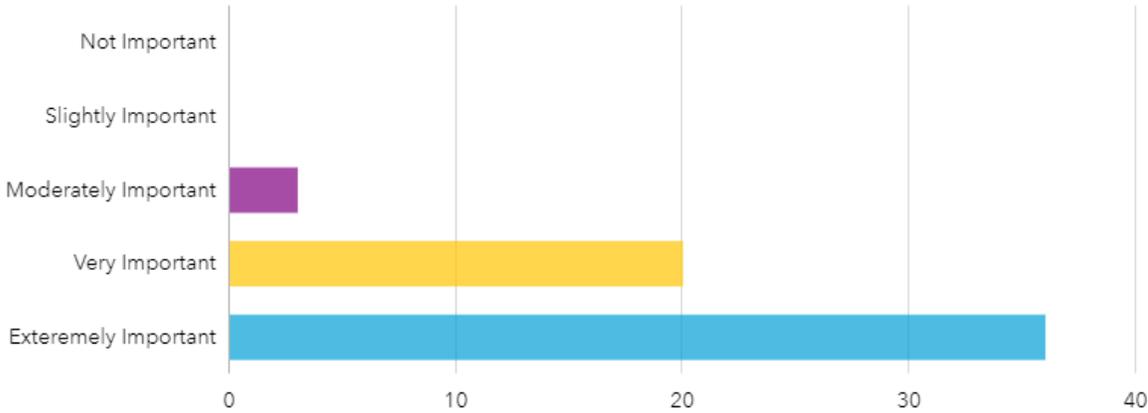
Answers	Count	Percentage
Not Important	0	0%
Slightly Important	2	3.39%
Moderately Important	15	25.42%
Very Important	21	35.59%
Extremely Important	21	35.59%

Workforce Diversity



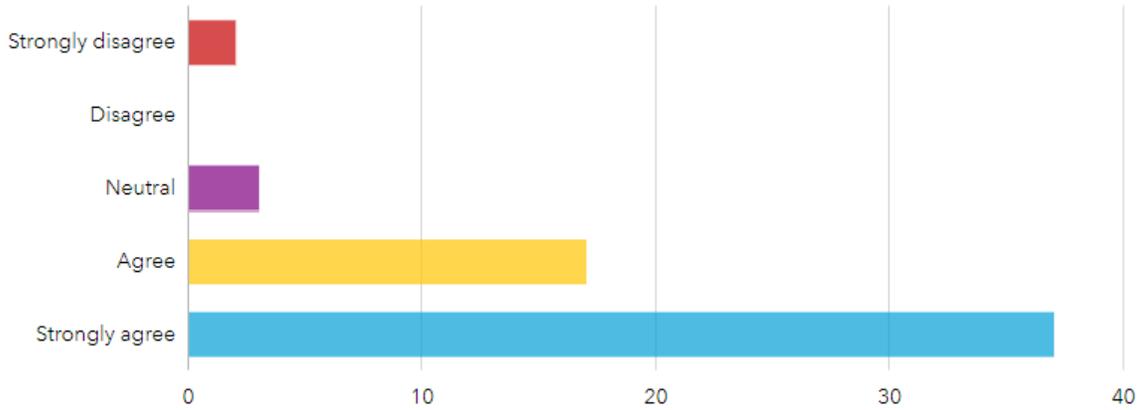
Answers	Count	Percentage
Not Important	4	6.78%
Slightly Important	8	13.56%
Moderately Important	15	25.42%
Very Important	14	23.73%
Exteremely Important	18	30.51%

Pay & Benefits



Answers	Count	Percentage
Not Important	0	0%
Slightly Important	0	0%
Moderately Important	3	5.08%
Very Important	20	33.9%
Exteremely Important	36	61.02%

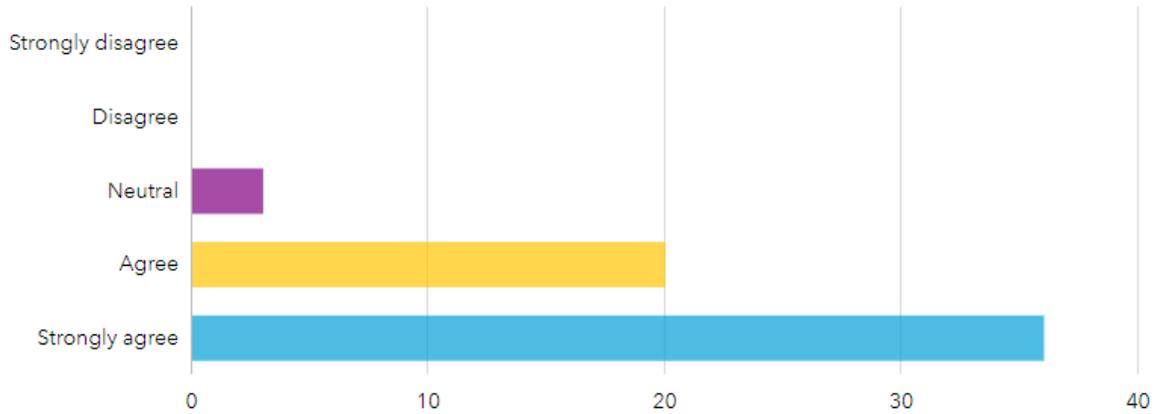
Smyrna firefighters and staff are kind, courteous, and professional.



Answers	Count	Percentage
Strongly disagree	2	3.39%
Disagree	0	0%
Neutral	3	5.08%
Agree	17	28.81%
Strongly agree	37	62.71%

Purpose Statement

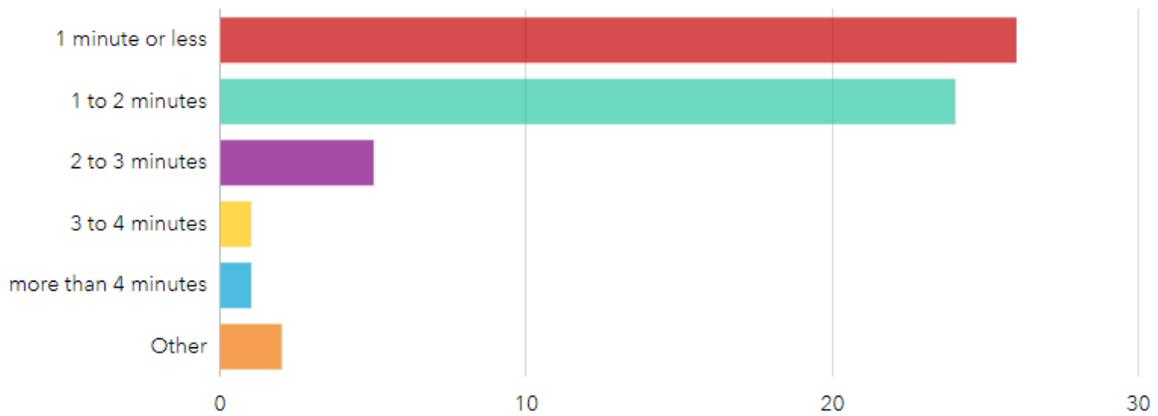
Do you agree with the following purpose statement adopted by the Smyrna Fire Department?



Answers	Count	Percentage
Strongly disagree	0	0%
Disagree	0	0%
Neutral	3	5.08%
Agree	20	33.9%
Strongly agree	36	61.02%

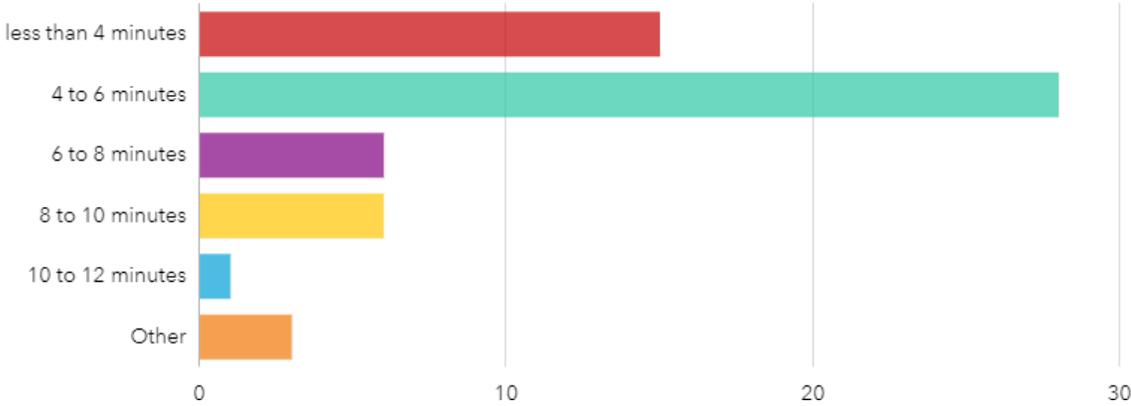
Response Time Expectations

If you dial 911, how long should it take to gather information to dispatch help?



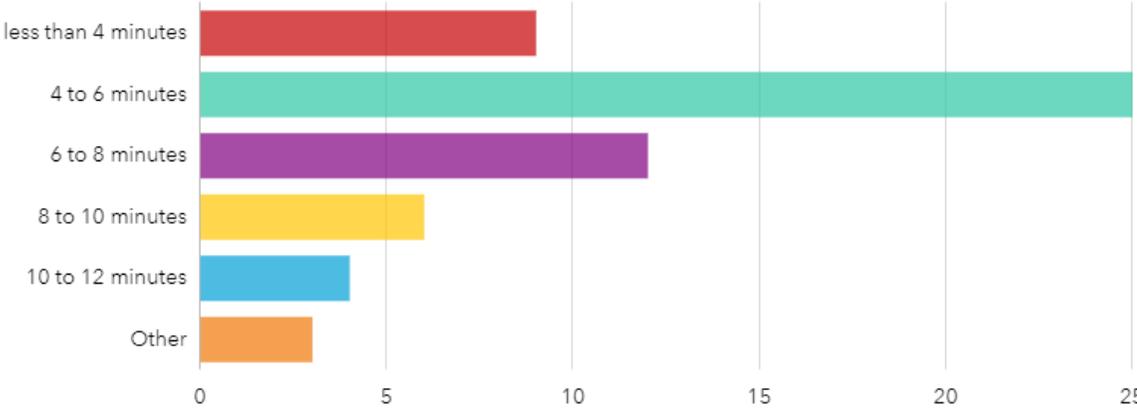
Answers	Count	Percentage
1 minute or less	26	44.07%
1 to 2 minutes	24	40.68%
2 to 3 minutes	5	8.47%
3 to 4 minutes	1	1.69%
more than 4 minutes	1	1.69%
Other	2	3.39%

After a unit is dispatched, how long should it take for it to arrive?



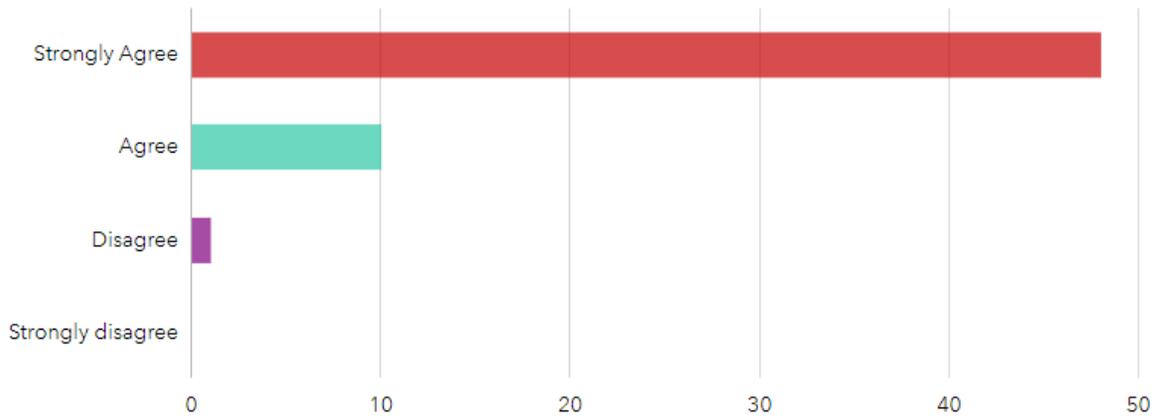
Answers	Count	Percentage
less than 4 minutes	15	25.42%
4 to 6 minutes	28	47.46%
6 to 8 minutes	6	10.17%
8 to 10 minutes	6	10.17%
10 to 12 minutes	1	1.69%
Other	3	5.08%

If you need transportation to the hospital, how long should it take for an ambulance to arrive onscene after you dial 911?



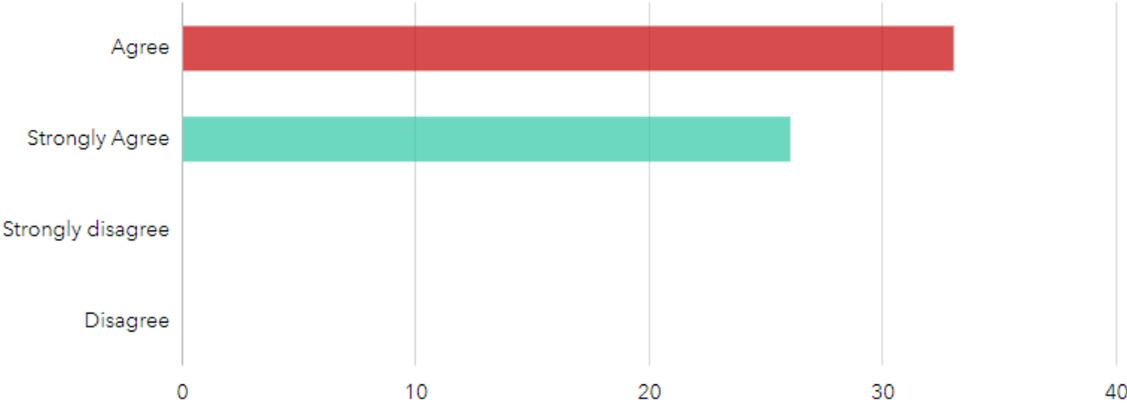
Answers	Count	Percentage
less than 4 minutes	9	15.25%
4 to 6 minutes	25	42.37%
6 to 8 minutes	12	20.34%
8 to 10 minutes	6	10.17%
10 to 12 minutes	4	6.78%
Other	3	5.08%

The proximity of a fire station to my home or work is appropriate for my needs.



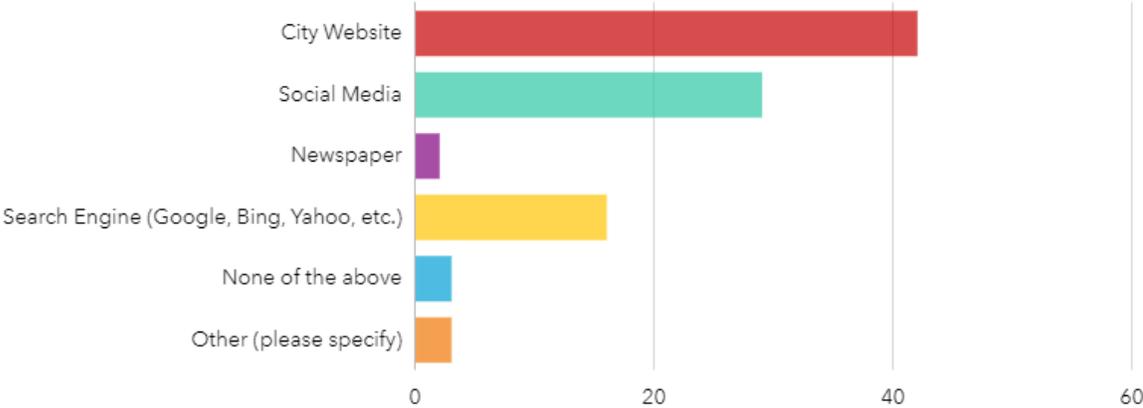
Answers	Count	Percentage
Strongly Agree	48	81.36%
Agree	10	16.95%
Disagree	1	1.69%
Strongly disagree	0	0%

The Smyrna Fire Department responds to all emergency calls in a timely manner.



Answers	Count	Percentage
Agree	33	55.93%
Strongly Agree	26	44.07%
Strongly disagree	0	0%
Disagree	0	0%

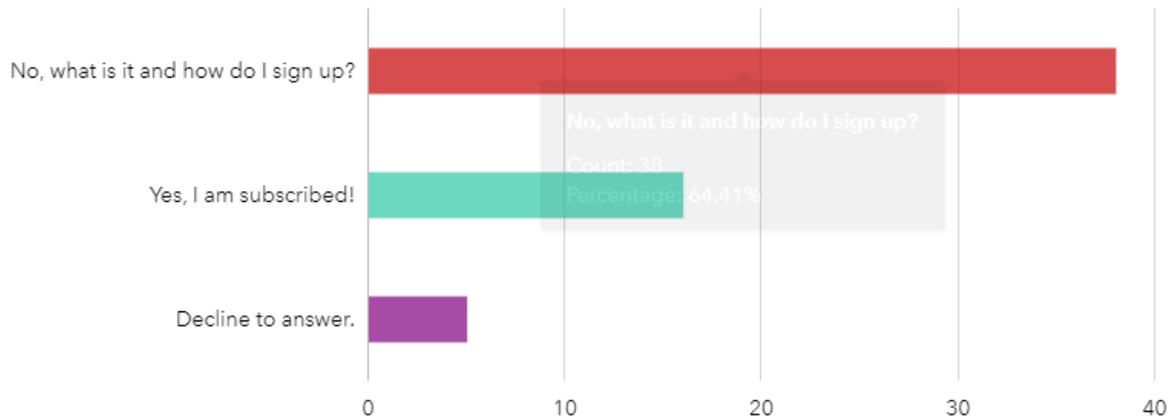
Where do you look for information from the Smyrna Fire Department?



Answers	Count	Percentage
City Website	42	71.19%
Social Media	29	49.15%
Newspaper	2	3.39%
Search Engine (Google, Bing, Yahoo, etc.)	16	27.12%
None of the above	3	5.08%
Other (please specify)	3	5.08%

Civic Ready

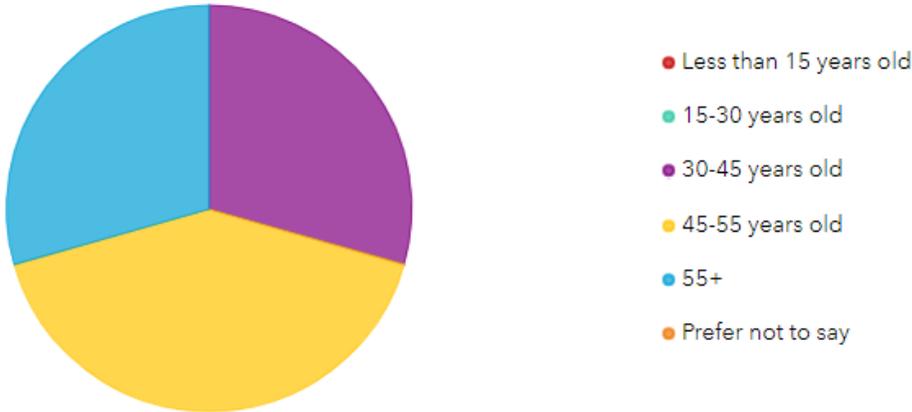
Did you know that the Smyrna Emergency Management Agency within the Smyrna Fire Department uses CivicReady to communicate urgent messages?



Answers	Count	Percentage
No, what is it and how do I sign up?	38	64.41%
Yes, I am subscribed!	16	27.12%
Decline to answer.	5	8.47%

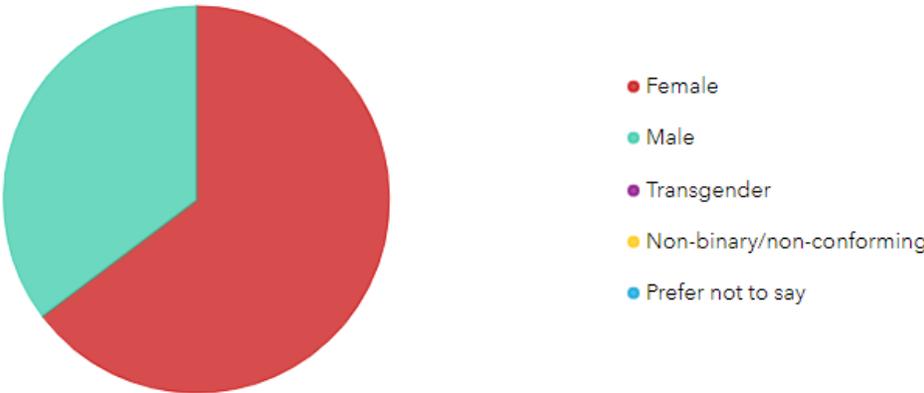
Optional Demographic Information

Age



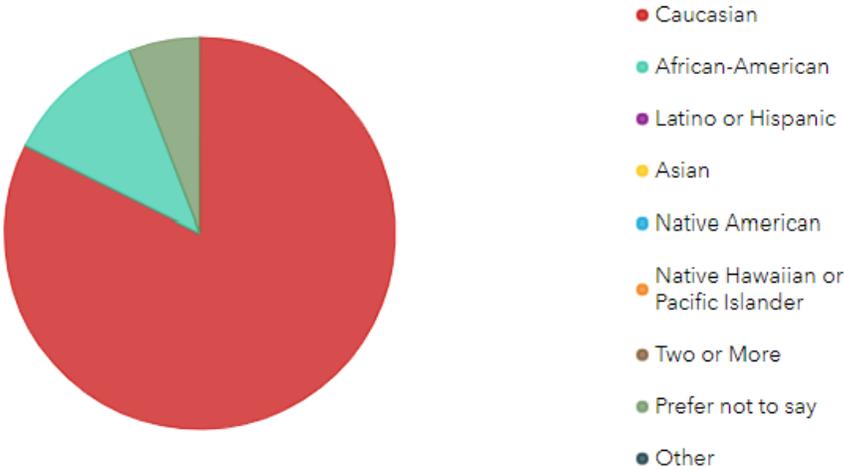
Answers	Count	Percentage
Less than 15 years old	0	0%
15-30 years old	0	0%
30-45 years old	5	8.47%
45-55 years old	7	11.86%
55+	5	8.47%
Prefer not to say	0	0%

Gender



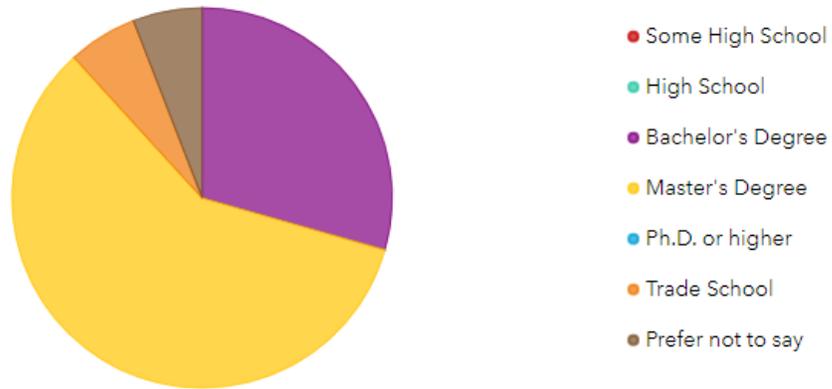
Answers	Count	Percentage
Female	11	18.64%
Male	6	10.17%
Transgender	0	0%
Non-binary/non-conforming	0	0%
Prefer not to say	0	0%

Ethnicity



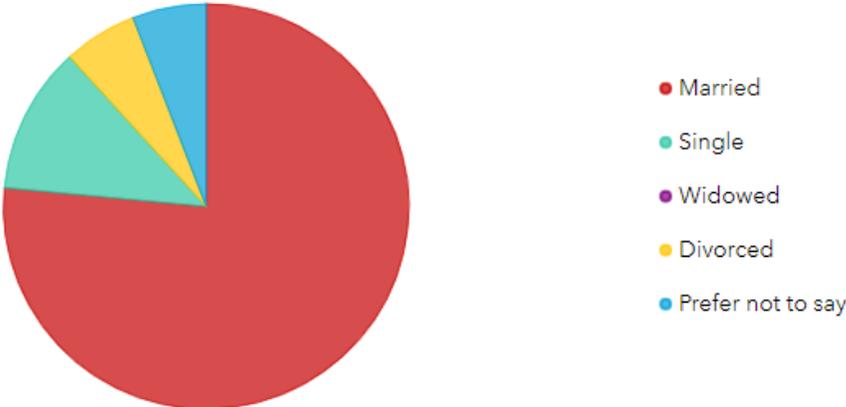
Answers	Count	Percentage
Caucasian	14	23.73%
African-American	2	3.39%
Latino or Hispanic	0	0%
Asian	0	0%
Native American	0	0%
Native Hawaiian or Pacific Islander	0	0%
Two or More	0	0%
Prefer not to say	1	1.69%
Other	0	0%

What is the highest degree or level of education you have completed?



Answers	Count	Percentage
Some High School	0	0%
High School	0	0%
Bachelor's Degree	5	8.47%
Master's Degree	10	16.95%
Ph.D. or higher	0	0%
Trade School	1	1.69%
Prefer not to say	1	1.69%

What is your marital status?



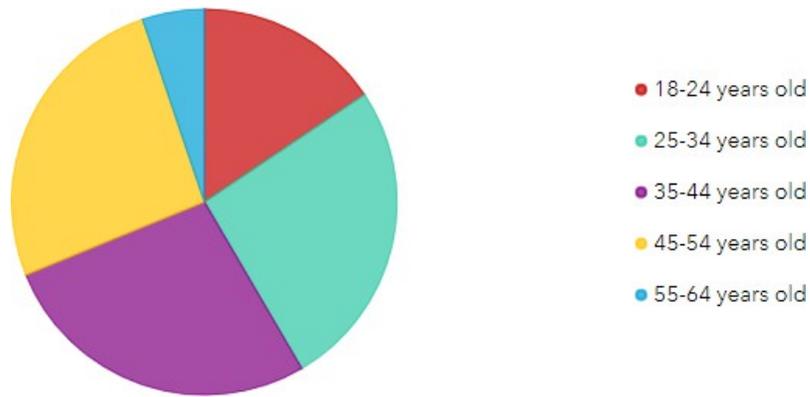
Answers	Count	Percentage
Married	13	22.03%
Single	2	3.39%
Widowed	0	0%
Divorced	1	1.69%
Prefer not to say	1	1.69%

Appendix B. Fire Department Employee Survey

The Smyrna Fire Department Employee Survey was open for participation from May 26, 2023, through July 9, 2023. A total of 77 employees participated in the survey. The survey questions and answers are as follows:

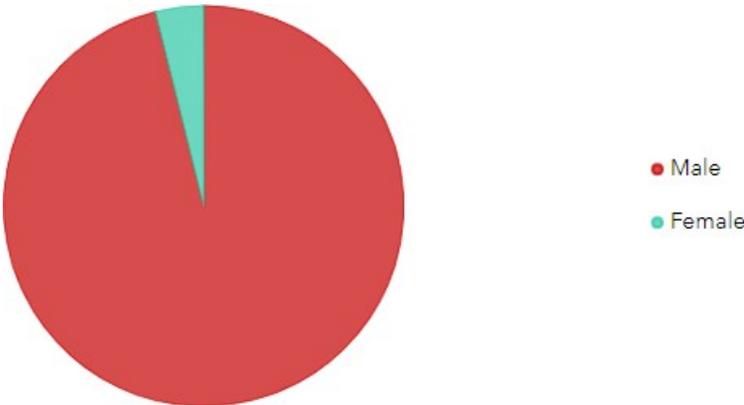
Participant Demographic Information

Age



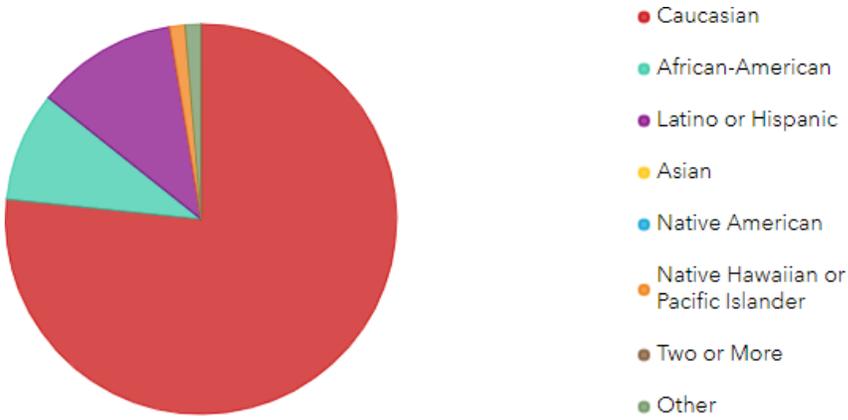
Answers	Count	Percentage
18-24 years old	12	15.58%
25-34 years old	20	25.97%
35-44 years old	21	27.27%
45-54 years old	20	25.97%
55-64 years old	4	5.19%

Gender



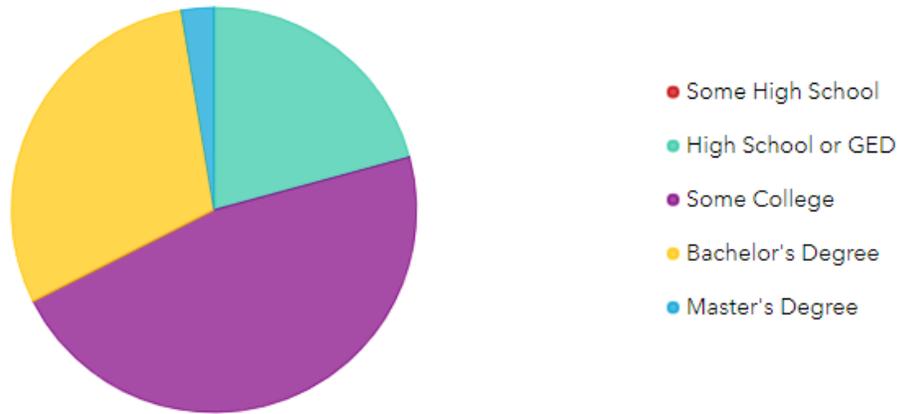
Answers	Count	Percentage
Male	74	96.1%
Female	3	3.9%

Ethnicity



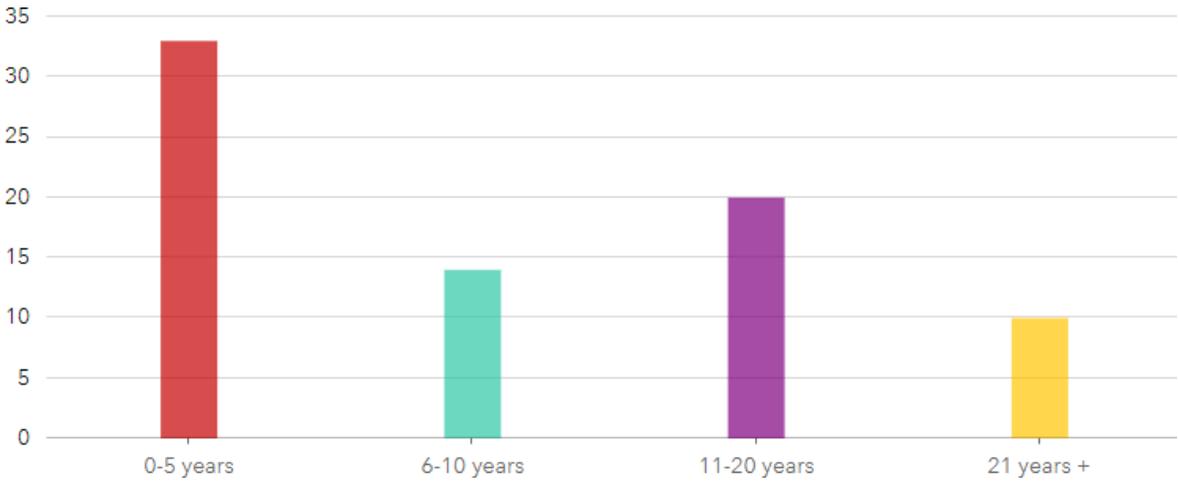
Answers	Count	Percentage
Caucasian	59	76.62%
African-American	7	9.09%
Latino or Hispanic	9	11.69%
Asian	0	0%
Native American	0	0%
Native Hawaiian or Pacific Islander	1	1.3%
Two or More	0	0%
Other	1	1.3%

What is the highest degree or level of education you have completed?



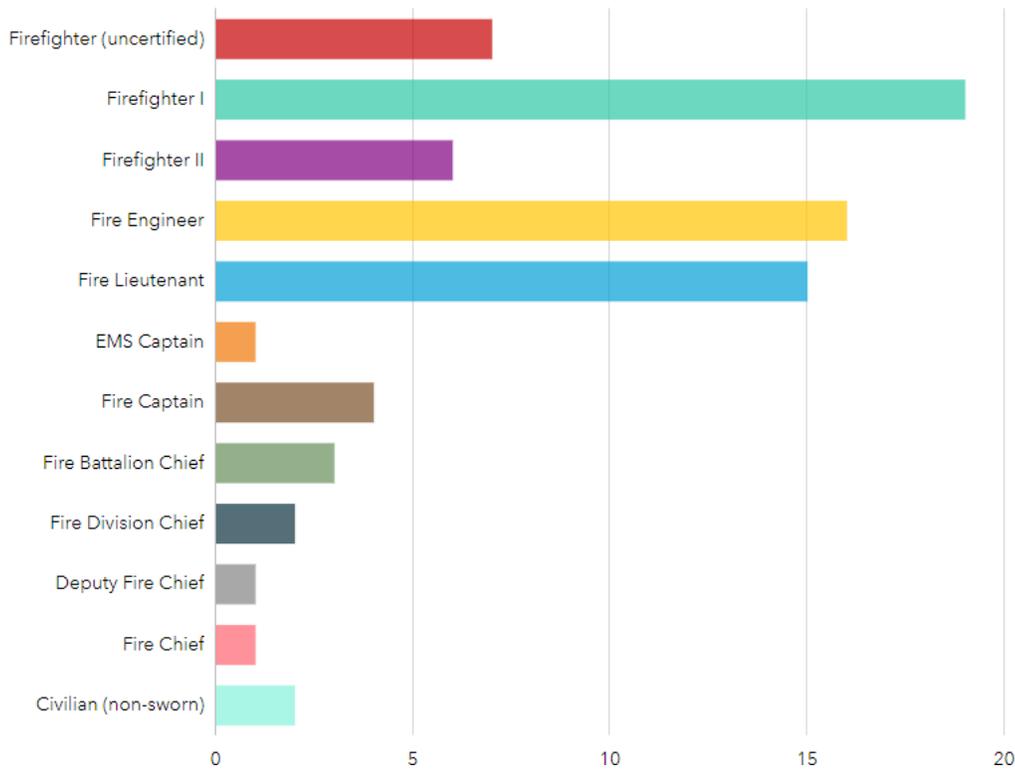
Answers	Count	Percentage
Some High School	0	0%
High School or GED	16	20.78%
Some College	36	46.75%
Bachelor's Degree	23	29.87%
Master's Degree	2	2.6%

Years of service to the Smyrna Fire Department:



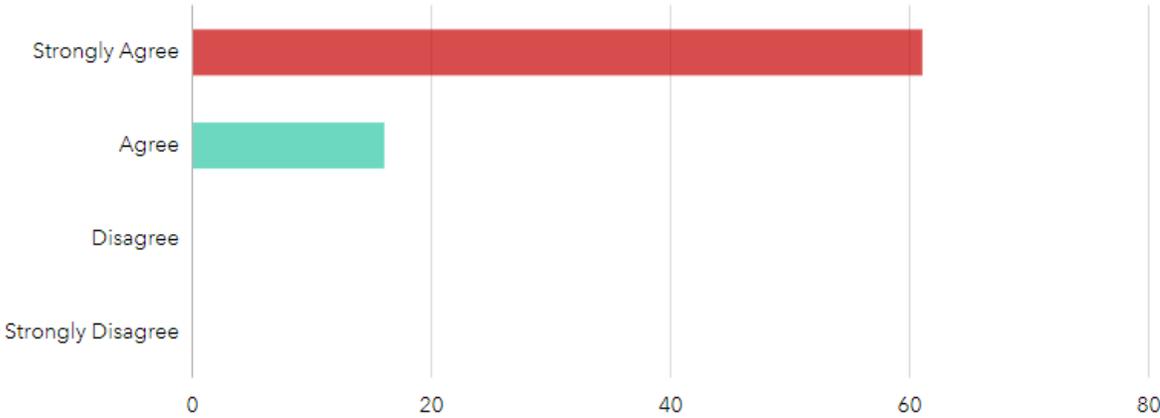
Answers	Count	Percentage
0-5 years	33	42.86%
6-10 years	14	18.18%
11-20 years	20	25.97%
21 years +	10	12.99%

What is your current position?



Answers	Count	Percentage
Firefighter (uncertified)	7	9.09%
Firefighter I	19	24.68%
Firefighter II	6	7.79%
Fire Engineer	16	20.78%
Fire Lieutenant	15	19.48%
EMS Captain	1	1.3%
Fire Captain	4	5.19%
Fire Battalion Chief	3	3.9%
Fire Division Chief	2	2.6%
Deputy Fire Chief	1	1.3%
Fire Chief	1	1.3%

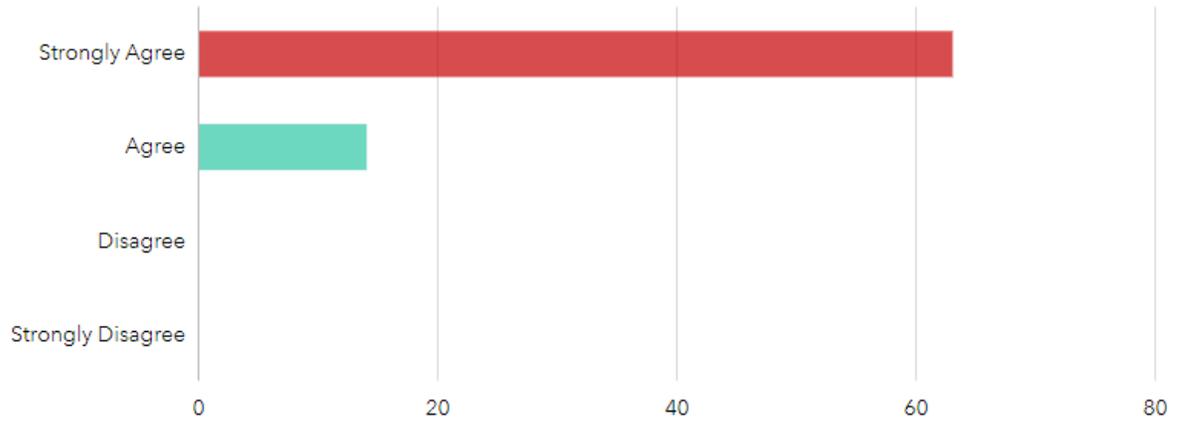
I am proud to tell other people that I work for the Smyrna Fire Department.



Answers	Count	Percentage
Strongly Agree	61	79.22%
Agree	16	20.78%
Disagree	0	0%
Strongly Disagree	0	0%

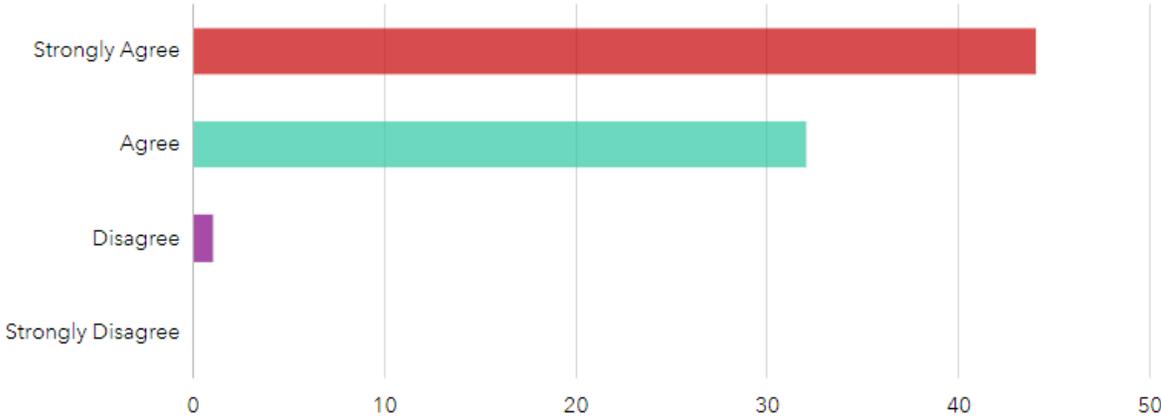
Employees were asked to indicate their level of agreement with the following statements.

The Smyrna Fire Department is respected by the community that it serves.



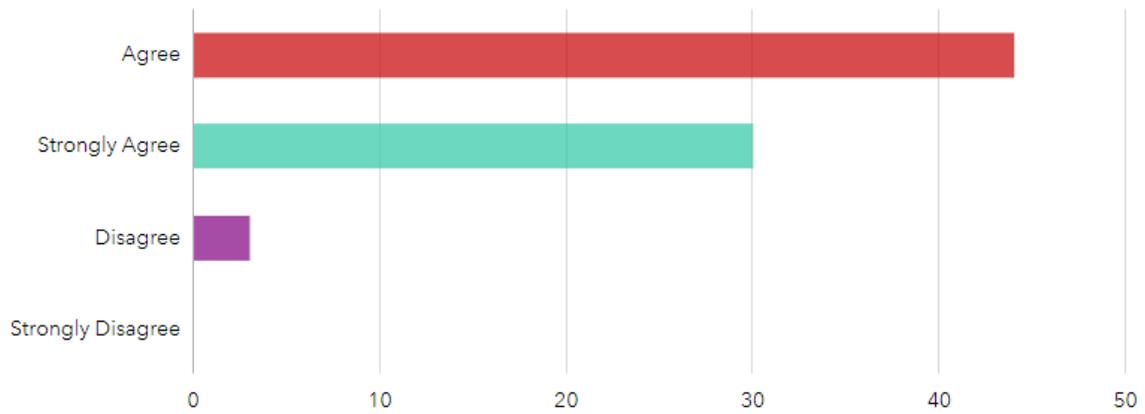
Answers	Count	Percentage
Strongly Agree	63	81.82%
Agree	14	18.18%
Disagree	0	0%
Strongly Disagree	0	0%

The Smyrna Fire Department provides me with the appropriate type and number of training hours to do my job safely and efficiently.



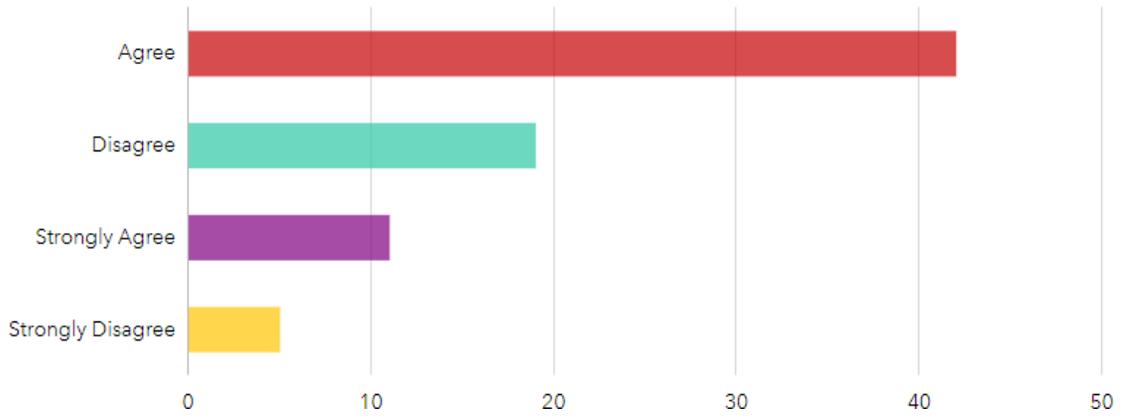
Answers	Count	Percentage
Strongly Agree	44	57.14%
Agree	32	41.56%
Disagree	1	1.3%
Strongly Disagree	0	0%

I have adequate time and resources to engage with the community and provide public education.



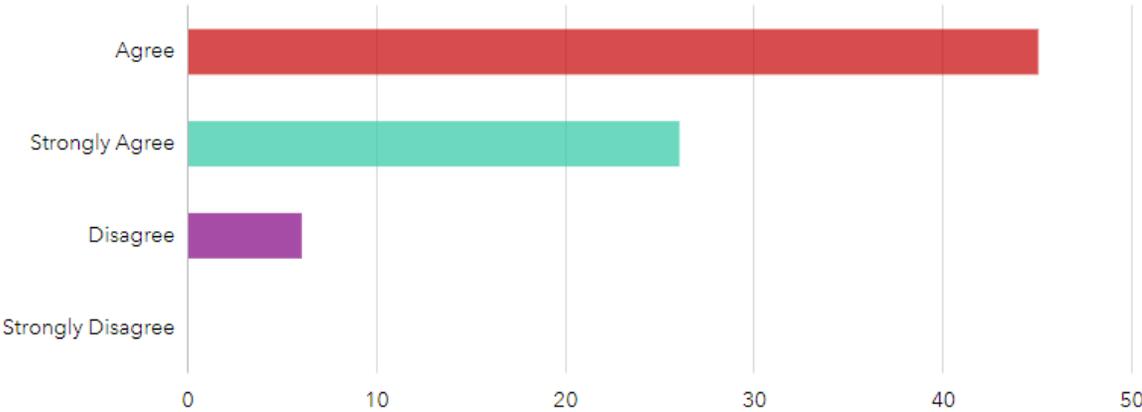
Answers	Count	Percentage
Agree	44	57.14%
Strongly Agree	30	38.96%
Disagree	3	3.9%
Strongly Disagree	0	0%

The Smyrna Fire Department staffs all its front-line apparatus with the appropriate number of personnel.



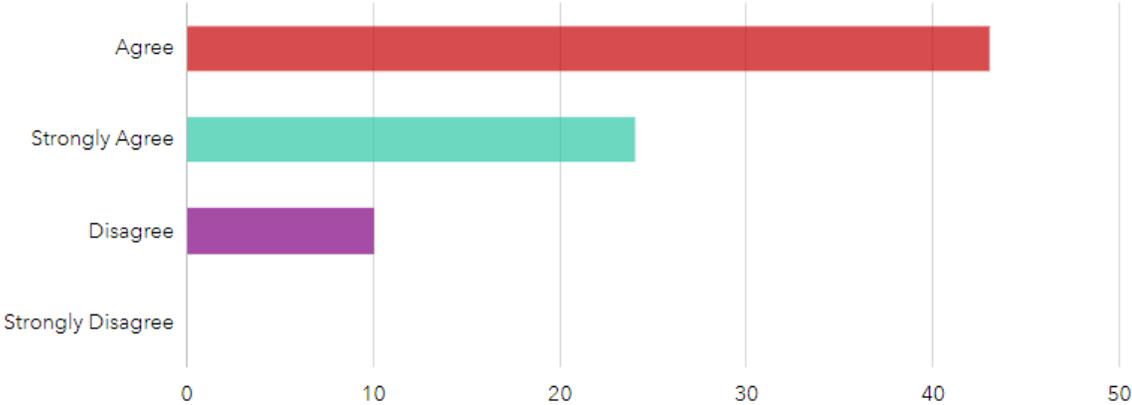
Answers	Count	Percentage
Agree	42	54.55%
Disagree	19	24.68%
Strongly Agree	11	14.29%
Strongly Disagree	5	6.49%

The Smyrna Fire Department fire stations are well maintained.



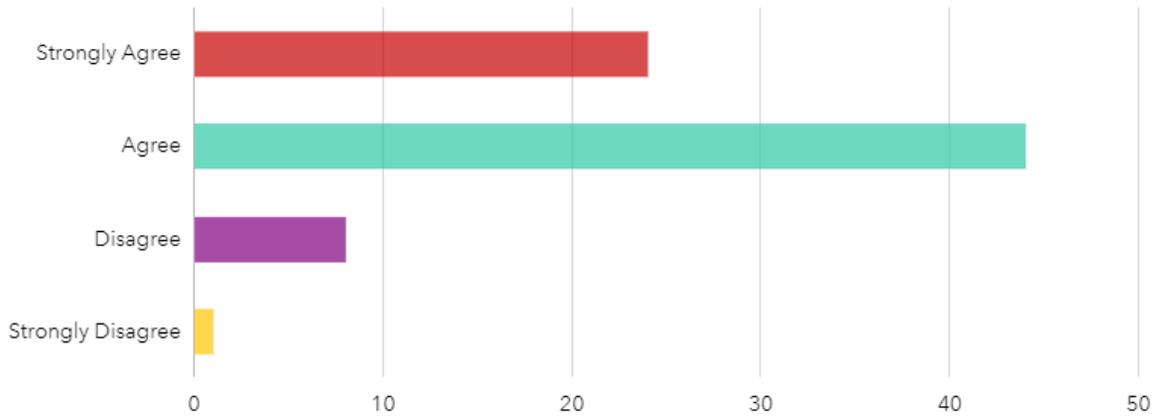
Answers	Count	Percentage
Agree	45	58.44%
Strongly Agree	26	33.77%
Disagree	6	7.79%
Strongly Disagree	0	0%

The Smyrna Fire Department provides the most up-to-date measures to address cancer reduction measures amongst its personnel.



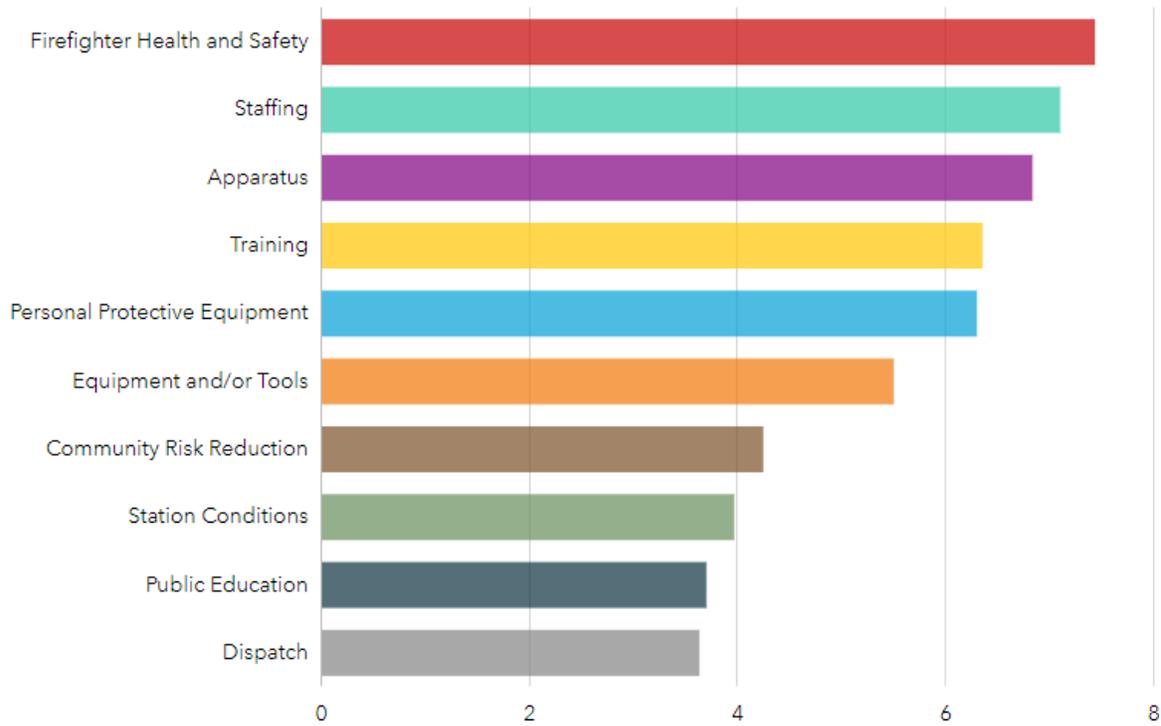
Answers	Count	Percentage
Agree	43	55.84%
Strongly Agree	24	31.17%
Disagree	10	12.99%
Strongly Disagree	0	0%

The Smyrna Fire Department provides the most up-to-date measures to provide mental wellness training and access to resources amongst its personnel.



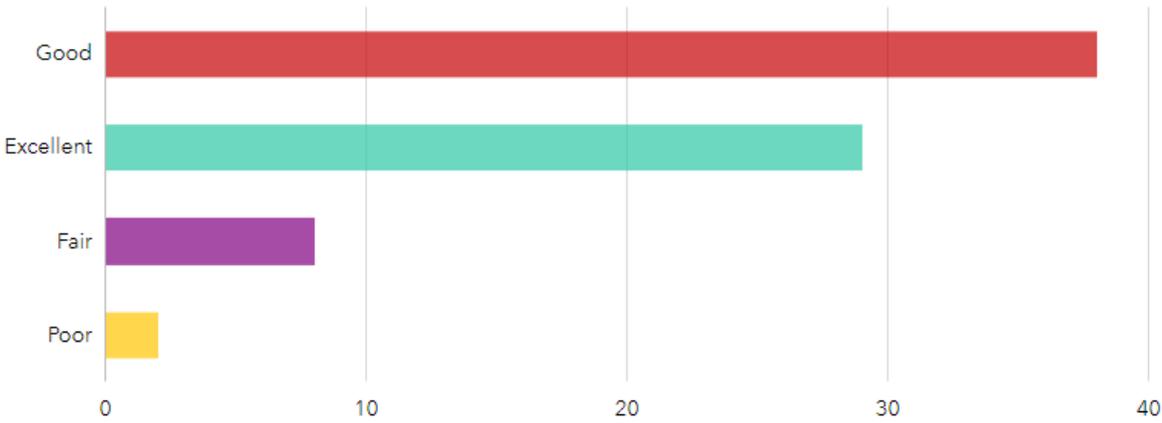
Answers	Count	Percentage
Strongly Agree	24	31.17%
Agree	44	57.14%
Disagree	8	10.39%
Strongly Disagree	1	1.3%

Please rank the following focus areas in order from most to least important.



Rank	Answers	1	2	3	4	5	6	7	Average score
1	Firefighter Health and Safety	40% 30	9.33% 7	6.67% 5	9.33% 7	4% 3	12% 9	6.67% 5	7.43
2	Staffing	20% 15	20% 15	13.33% 10	14.67% 11	2.67% 2	10.67% 8	5.33% 4	7.09
3	Apparatus	17.33% 13	14.67% 11	14.67% 11	8% 6	17.33% 13	9.33% 7	5.33% 4	6.83
4	Training	6.67% 5	13.33% 10	21.33% 16	13.33% 10	12% 9	9.33% 7	9.33% 7	6.35
5	Personal Protective Equipment	6.67% 5	16% 12	17.33% 13	13.33% 10	14.67% 11	9.33% 7	4% 3	6.29
6	Equipment and/or Tools	0% 0	5.33% 4	12% 9	13.33% 10	21.33% 16	22.67% 17	6.67% 5	5.49
7	Community Risk Reduction	5.33% 4	6.67% 5	4% 3	5.33% 4	5.33% 4	9.33% 7	13.33% 10	4.24
8	Station Conditions	0% 0	4% 3	4% 3	5.33% 4	12% 9	10.67% 8	22.67% 17	3.96
9	Public Education	1.33% 1	6.67% 5	6.67% 5	4% 3	5.33% 4	4% 3	9.33% 7	3.69
10	Dispatch	2.67% 2	4% 3	0% 0	13.33% 10	5.33% 4	2.67% 2	17.33% 13	3.63

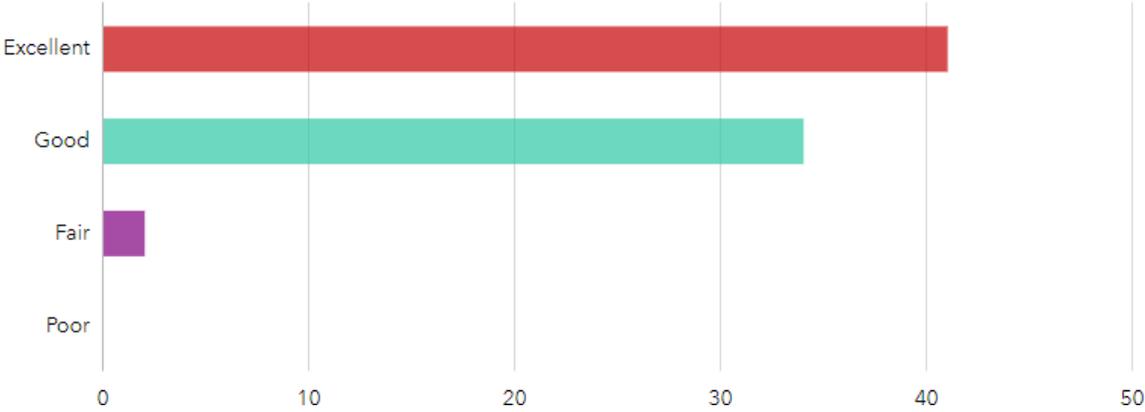
Morale among Smyrna Fire Department personnel is:



Answers	Count	Percentage
Good	38	49.35%
Excellent	29	37.66%
Fair	8	10.39%
Poor	2	2.6%

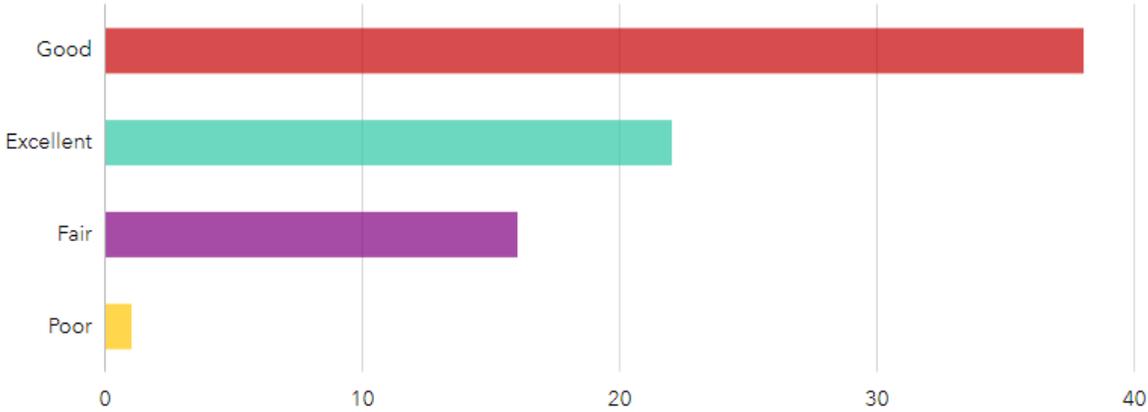
Answers

I would describe my work environment as:



Answers	Count	Percentage
Excellent	41	53.25%
Good	34	44.16%
Fair	2	2.6%
Poor	0	0%

How would you rate communication within the Smyrna Fire Department?



Answers	Count	Percentage
Good	38	49.35%
Excellent	22	28.57%
Fair	16	20.78%
Poor	1	1.3%

What is the greatest strength of the Smyrna Fire Department?



Word	Count
people	15
department	14
fire	9
work	8
Smyrna	8
care	7
good	5
brotherhood	5
people.	5
greatest	5
citizens	4

What is the greatest opportunity in the future for the Smyrna Fire Department?



Word	Count
department	14
fire	11
growth	9
opportunity	9
Community	9
continue	9
departments	8
grow	6
growth.	6
Develop	5
staffing	5

What is the greatest challenge in the future for the Smyrna Fire Department?



Word	Count
fire	12
keeping	11
people	10
department	9
growth	9
quality	7
Growing	7
personnel	7
Apparatus	7
staffing	6
future	5

