

# COLORADO SPRINGS FIRE DEPARTMENT



## 2022 COMMUNITY RISK ASSESSMENT AND STANDARDS OF COVER



**2022 Community Risk Assessment  
Standards of Cover  
3<sup>rd</sup> Edition**

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**Reviews and Revisions**

<b>Description</b>	<b>Author</b>	<b>CFAI Edition</b>	<b>Date</b>
<b>Initial Draft</b>	Fontecchio	8 <sup>th</sup> Edition	August 2012
<b>Revision</b>	Fontecchio	9 <sup>th</sup> Edition	May 2017
<b>Review</b>	Fontecchio	9 <sup>th</sup> Edition	January 2018
<b>Review</b>	Habert	9 <sup>th</sup> Edition	April 2021
<b>Revision</b>	Schuettpelz	10 <sup>th</sup> Edition	April 2022

**Review Frequency**

The Colorado Springs Fire Department Community Risk Assessment and Standards of Cover is intended to be a living document. As such, it will be reviewed and updated regularly to reflect changes in best practices, performance data and CSFD's ability to respond to the community's needs and expectations.

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## *Mission, Core Values and Vision*

### **Mission**

The mission of the Colorado Springs Fire Department is to provide fire, emergency and prevention services with professionalism, compassion and excellence.

### **Core Values**

- **Accountability** - The Colorado Springs Fire Department remains accountable to our employees and the community through responsible stewardship of our resources and ownership of our actions.
- **Courage** - The Colorado Springs Fire Department demonstrates physical courage when taking calculated risks during the mitigation of emergencies and shows moral courage by doing what is right for the protection of our coworkers and our community.
- **Honor** - The Colorado Springs Fire Department stands united in promoting excellence of character and integrity while adhering to what is right and ethical.
- **Professionalism** - The Colorado Springs Fire Department exhibits professionalism through pride, passion, and dedication with intense preparation toward mastery over all with which we have been entrusted.
- **Service** - The Colorado Springs Fire Department strives to positively impact our community and members of our organization by placing the needs of others before self, without judgment or thought of reward.

### **Vision**

The vision of the Colorado Springs Fire Department is to be internationally recognized as a industry leader that sets the highest standards in safeguarding our community.



## *Introduction*

This document serves as the Colorado Springs Fire Department (CSFD) Community Risk Assessment and Standards of Cover (CRA/SOC). In support of its mission, “To provide fire, emergency and prevention services with professionalism, compassion and excellence,” the CSFD has developed its CRA/SOC to guide its pursuit of department goals and objectives. The Commission of Fire Accreditation International (CFAI) explains the SOC is, “Written policies and procedures that establish the distribution and concentration of fixed and mobile resources.” The purpose of this document is to provide the department and its community with an understanding of the CSFD’s operations, risks, and capabilities to ensure a safe and effective emergency response force. The CRA/SOC assists the CSFD in ensuring a safe and effective strategy in its prevention of, and response to, fires, emergency medical response, technical rescues, HazMat and any other human and natural disasters within the community.

The development and maintenance of the CSFD CRA/SOC involves research, documentation, and analysis of a variety of areas including input received from both internal and external stakeholders. This report includes a description of the area characteristics, as well as a description of the department and its programs and services. The CRA/SOC also details an all-hazard risk assessment of the community including response history, current deployment strategy, performance objectives and evaluation, and the plan for maintaining and improving response capabilities throughout the community.



## *Executive Summary*

The Colorado Springs Fire Department strives to positively impact our community and members of its organization by placing the needs of others before self, without judgment or thought of reward. The CSFD holds the distinct honor to have attained accreditation from CFAI in 2013 and 2018. As an accredited agency, the CSFD continues to assess its service delivery, strives to meet industry best practices, and focuses on continuous improvement to provide the community and its visitors with exceptional service.

The Commission on Fire Accreditation International defines the process, known as “deployment analysis”, as, “creating a written procedure which determines the distribution and concentration of fixed and mobile resources of an organization.” Combined with the identification and prioritization of potential and likely risks, the CSFD CRA/SOC defines and guides the safe and effective response for emergency fire suppression, emergency medical services, and specialty response situations to the City of Colorado Springs.

The CRA/SOC describes the Colorado Springs service area, as well as the identified and potential risks within the community. It has been developed based on a comprehensive study of the department’s historical performance, deployment strategies and community risk factors to determine the CSFD’s performance objectives and the capability of its response system. Response standards have been set following a systematic evaluation of information contained in the department’s records management system. As a result, guidelines detailed in the CRA/SOC enable the CSFD to meet and often exceed the community’s needs and expectations by providing appropriate levels of service while operating in a safe, efficient, and effective manner.

The CSFD CRA/SOC reflects the changing needs of the community and serves the CSFD as a mechanism for constantly seeking opportunities for improvement. It is a key element in the department’s plan to reduce risk to the Colorado Springs community and its visitors. The CSFD is committed to providing the most effective services in a fiscally responsible manner and to continually evaluate its performance in the constant pursuit of improvement.

## *Documentation of Area Characteristics (2A)*

### **Legal Basis for Existence – History**

Beginning in the late 1800s, the area became a natural health destination for tuberculosis patients because of the natural mineral springs and dry mountain air. In 1871, General William Jackson Palmer founded Colorado Springs, envisioning a resort community always in view of Colorado's famous Pikes Peak.

The City of Colorado Springs was chartered on May 11, 1909, pursuant to the home rule provisions of Article XX of the Colorado State Constitution. The executive and administrative functions were divided in five departments: Water and Water Works; Finance; Public Safety (Police and Fire); Public Works and Property; and Public Health and Sanitation. Chapter 8, Article 2 of the Code of the City of Colorado Springs establishes the Colorado Springs Fire Department, granting the authority to protect the city against fire.

Services provided by the CSFD as stated in the code are fire suppression, fire investigations, hazardous materials response, fire prevention, fire code enforcement, public education, and medical control at the scene of an accident or emergency. The CSFD has grown to provide other services, including non-emergency medical services, technical rescue, wildland fire suppression, and community and public health services.

### **Organizational Overview**

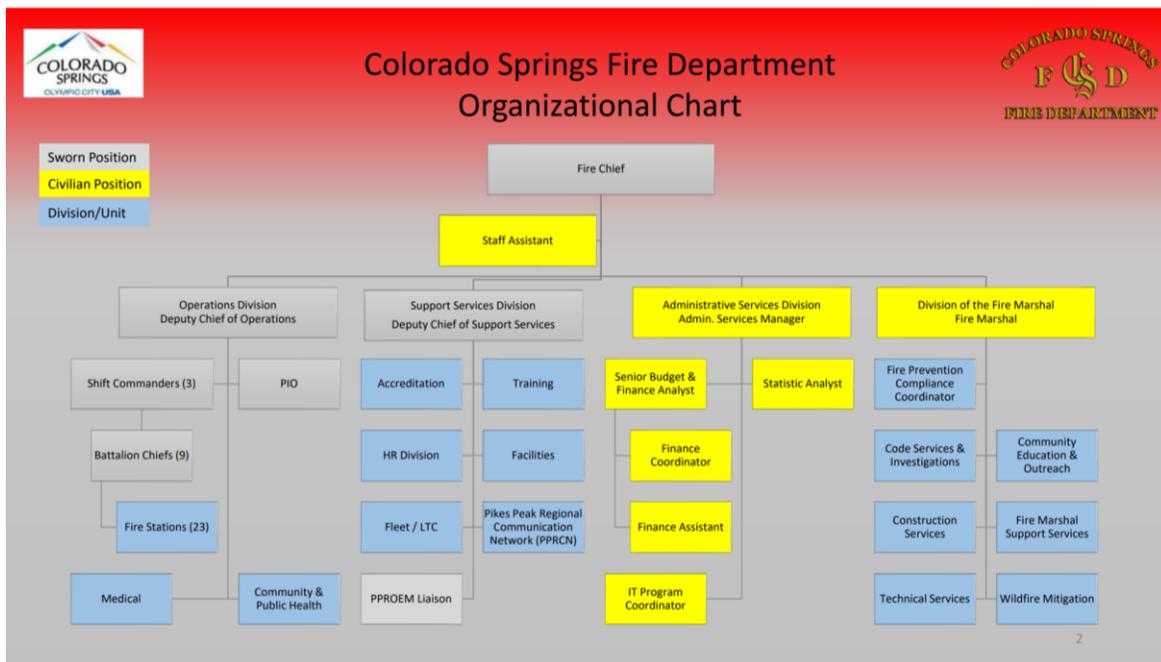
Fire prevention and protection activities began in Colorado Springs in 1871 with volunteers. The official beginning of the Colorado Springs Fire Department was in January 1894, when the city council voted to organize a paid fire department and disband the volunteers. However, the city did not establish charter authority for the CSFD until 1909.

The first motorized apparatus was put into service in October of 1910. A test run from Station 2 took two and a half minutes to reach the site that is now Penrose Hospital, whereas the previously used horse-drawn wagon had taken twenty-five minutes. A progressive step occurred

in the early 1960s when Chief Gus Cummings established company inspections. This included schools, hospitals, nursing homes, high rise building, hotels, and other high-risk buildings. The purpose was for the crews to familiarize themselves with the structures, as well as to draw a plan of each building showing exits, stairways, sprinklers, utility shutoffs, and special hazards.

Paramedic service began on December 31, 1979, when two Type III Triple K ambulances were put into service at Fire Stations 3 and 7. Response to hazardous materials incidents began in April 1981. State Senate Bill #55 mandated that local authority was responsible for control and containment of hazardous material, and the city council assigned this responsibility to the Colorado Springs Fire Department.

The Colorado Springs Fire Department has continued to grow and has progressed in many different disciplines of rescue. There are currently twenty-three fire stations in the city with plans for an additional three to five in the next five years. CSFD is managed by the Fire Chief. The Fire Chief is appointed by, and reports directly to, the mayor of Colorado Springs. The City has a council-mayor government; the mayor performs the executive duties, and a nine-member City Council performs the legislative duties. The Fire Chief is supported by a Deputy Chief of Operations, a Deputy Chief of Support Services, a Fire Marshal, and an Administrative Services Manager as direct reports.



Funding for the Colorado Springs Fire Department is provided primarily through city general fund allocations; the primary source of revenue for the general fund is sales and use taxes. For 2022, the city general fund accounts for 75% of the total CSFD budget. Another 23% of the CSFD budget is derived from the Public Safety Sales Tax, which is a voter-approved revenue source dedicated for the fire and police departments. Both funding sources are reliant on the economy, as sales tax revenues fluctuate based on consumer spending. The remaining 2% of the budget is obtained through grants.

Under a 1992 amendment to the Colorado Constitution, revenue is restricted for all levels of government. Known as the Taxpayer Bill of Rights (TABOR), local governments cannot spend revenues collected under existing tax rates without voter approval if revenues grow faster than the rate of inflation and population growth. In addition to the state TABOR, Colorado Springs voters approved a local TABOR in 1991. Due to these revenue limiting amendments, during times of economic recession when tax revenues decline, spending growth can be interrupted resulting in budget and service cuts.

### All Funds Summary

All Funds	Use of Funds	2020 Actual	2021 Original Budget	* 2021 Amended Budget	2022 Budget	2022 Budget - * 2021 Amended Budget
	General Fund	\$56,415,834	\$62,394,875	\$63,259,088	\$68,225,482	\$4,966,394
General Fund Projects	2,291,342	1,023,857	1,023,857	1,023,857	0	
General Fund - CIP	210,000	0	0	8,750,000	8,750,000	
PSST	17,765,284	18,146,826	18,146,826	22,438,794	4,291,968	
PSST Projects	0	258,397	258,397	624,452	366,055	
PSST - CIP	10,220	0	0	300,000	300,000	
Grants Fund**	934,078	3,045,000	3,045,000	2,440,000	(605,000)	
<b>All Funds Total</b>	<b>\$77,626,758</b>	<b>\$84,868,955</b>	<b>\$85,733,168</b>	<b>\$103,802,585</b>	<b>\$18,069,417</b>	
<b>Positions</b>						
General Fund	411.00	418.50	418.50	430.50	12.00	
Other Funds	120.50	120.50	125.50	149.50	24.00	
<b>Total</b>	<b>531.50</b>	<b>539.00</b>	<b>544.00</b>	<b>580.00</b>	<b>36.00</b>	

\* 2021 Amended Budget as of 8/13/2021, which includes the reinstatement of budget that had been reduced during 2020 and 2021 due to the economic shutdown and revenue loss as a result of the COVID-19 pandemic

\*\* The Grants Fund Appropriation includes appropriation for new grant funding, and may include re-appropriation of prior year grants not awarded, as well as local match. See Grants Overview for more information.

## Service Area Boundaries (2A.1, 2A.2)

The geographical boundaries of the CSFD are the city limits of Colorado Springs (Figure 1). Annexations continue to expand the square mileage of the city causing challenges for the CSFD to keep pace with the steady growth. There also are several county enclaves located within these boundaries. Two of the larger county areas are serviced by other fire departments. These are the Cimarron Hills Fire Department located on the east side of town, and the Stratmoor Hills Fire Department on the south side of town. In the northwest corner of the city is the Woodmen Valley area which is unincorporated county property. This neighborhood is serviced by the CSFD through an intergovernmental agreement. There are also several smaller county enclaves throughout the city that are serviced by the CSFD.

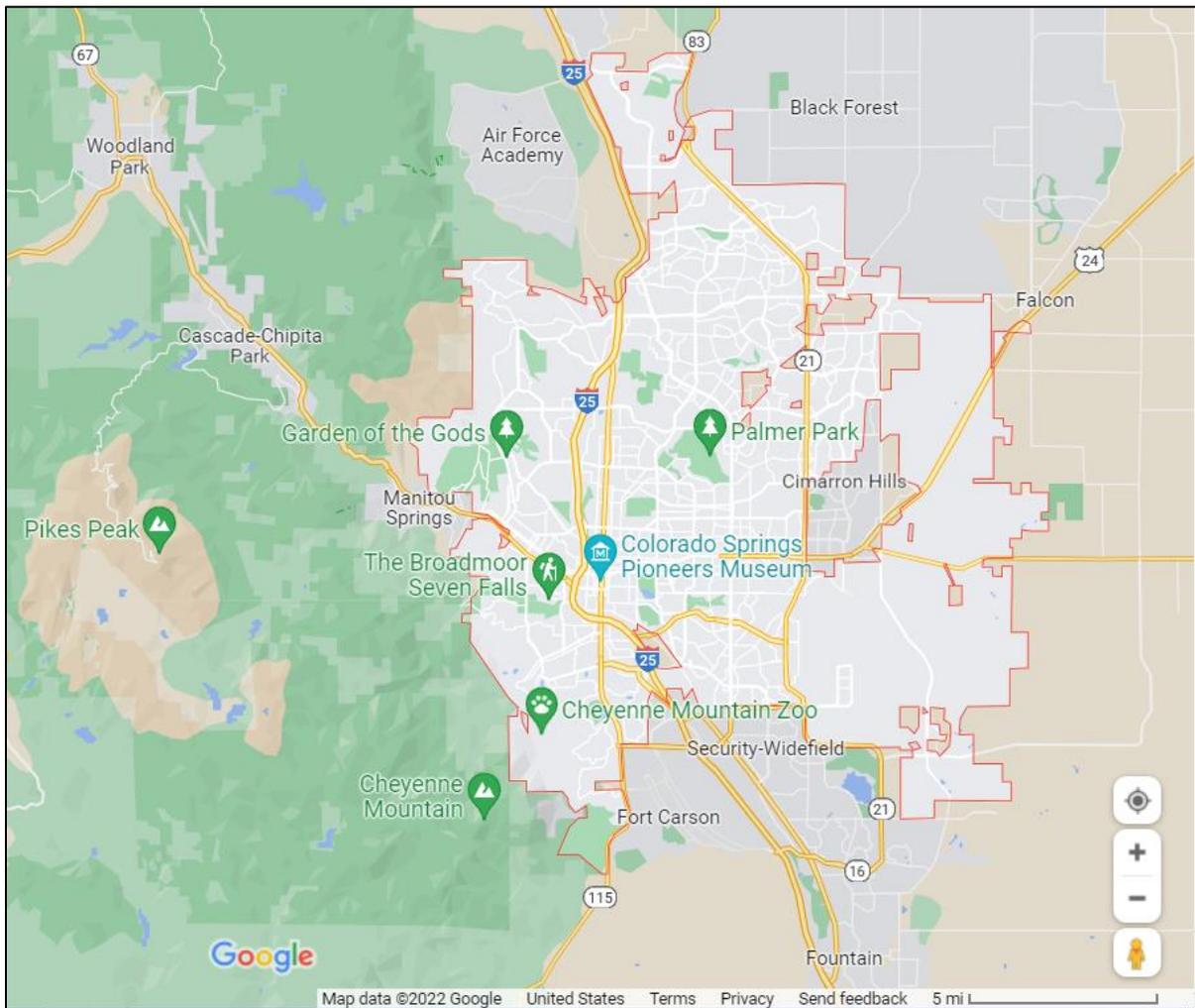


Figure 1 - City of Colorado Springs Boundaries

<https://www.google.com/maps/place/Colorado+Springs,+CO>





## Response Area Characteristics (2A.6, 2A.7)

### Topography (Figure 4)

The City of Colorado Springs is in south-central Colorado between the foothills of the Rocky Mountains and the eastern plains. The city is over 195 square miles, which makes it Colorado's largest city in area. The elevation is 6,035 feet, although some areas of the city are significantly higher. Portions of the western half of the city exist in a wildland interface area of steep slopes adjacent to the Pike National Forest running south from the Air Force Academy to Garden of the Gods, and down to the Broadmoor, Seven Falls and Cheyenne Mountain Zoo. Large portions of the eastern half of the city consist of flat grasslands. The north side of the city is bordered by the Palmer Divide, a ridge that runs perpendicular to the mountains. Colorado Springs sits in several different ecological zones and has a wide variety of vegetation, including grasses, scrub oak, and a multitude of coniferous and deciduous trees.

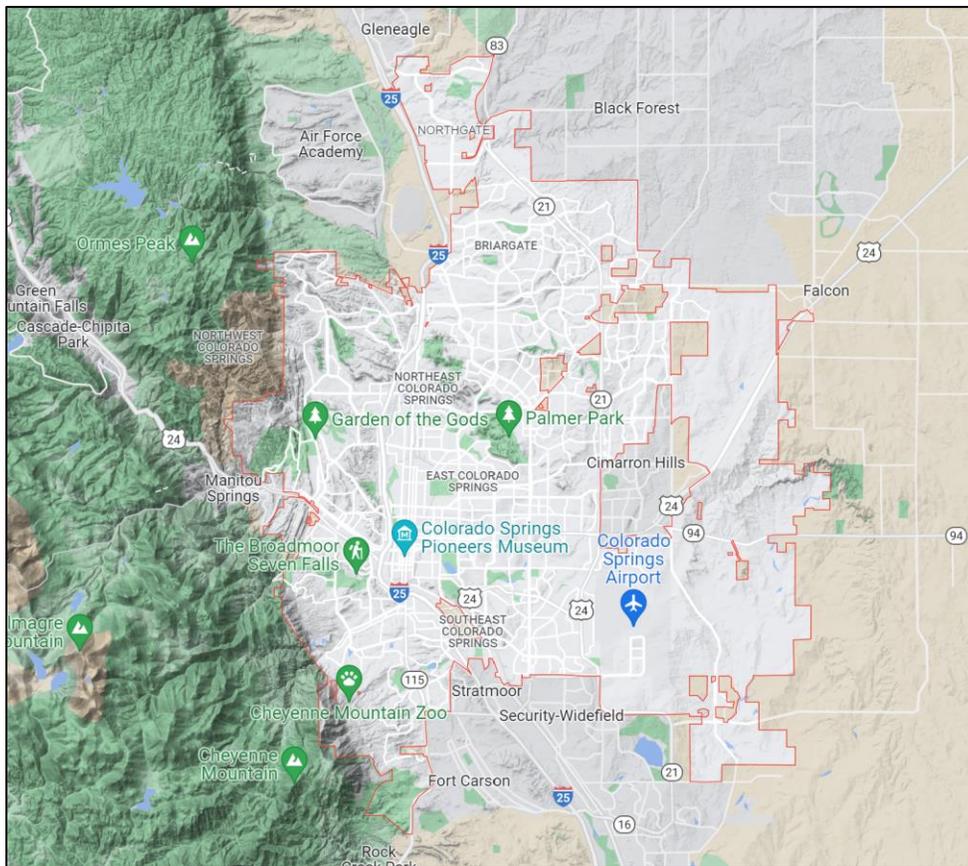


Figure 4 – Colorado Springs Topography

<https://www.google.com/maps>

## **Climate**

Colorado Springs has a semi-arid climate, and averages 300 sunny days per year. Average annual precipitation is 15.83 inches, with the highest precipitation in August. Average snowfall is approximately 39 inches per year, which primarily falls between October and April.

The warmest month is July, with an average high temperature of 87 degrees and an average low temperature of 59 degrees. The coldest month is December, with an average high temperature of 44 degrees and an average low temperature of 18 degrees. Temperatures can fluctuate drastically in Colorado Springs, sometimes as much as 30 degrees in one day. Although the city has a relatively mild climate, there are periods of extreme cold or heat that are far outside the average. Common natural weather events in Colorado Springs include winter storms, blizzards, thunderstorms, lightning, hail, windstorms, and flash flooding. Tornadoes are less likely but can happen on a weak magnitude.

Typical hazards of winter storms in the city include snow, ice, and extreme cold, frequently accompanied by strong winds, creating blizzard conditions, severe drifting, and dangerous wind chill temperatures. The severity of these storms varies depending on the location. Higher elevations to the north and west typically receive more snow; stronger winds typically occur on the north and east sides of the city. It is common for roads to ice over quickly, causing extremely hazardous driving conditions. This results in a high number of traffic accidents and slows response by emergency vehicles. Such weather conditions may cause localized power outages, as well as closures of streets, highways, public transportation, schools, businesses, and non-essential government operations. People may be stranded in vehicles or other locations not suited to sheltering operations and may be isolated from essential services. The extreme temperatures increase the likelihood of frozen pipes, and the subsequent thawing may produce broken pipes and flooding causing an increase in alarms for the department.

Spring in Colorado Springs is hail season, which typically occurs from April through June. The city is particularly vulnerable because it sits against the Front Range of the Rocky Mountains where hail-producing storms are more likely to develop. It is common for major roadways to be

covered with several inches of hail. This is also the time of year when tornadoes are most likely to occur. Although they more commonly form on the plains, east of the city, tornadoes have occurred within the city limits. More common during this season are microbursts, which are strong sudden windstorms, not as powerful as tornadoes, but capable of causing significant damage. These typically cause downed power lines and structural damage to buildings and can cause danger for airport traffic.

Thunderstorms occur frequently during the monsoon season of mid-June through August. These storms produce a large amount of rain in a short period of time and are often accompanied by lightning, high winds, and hail. Heavy rain typically leads to flash flooding of the multiple waterways in the city. Ground lightning strikes are very common during these storms. Calls for emergency response during these events include fires caused by lightning strikes and swift-water rescues.

### **Population, Socioeconomic and Demographic Characteristics**

The population of Colorado Springs according to the 2020 census was 478,961. It is estimated to be 506,646 for 2022. Colorado Springs is the second most populous city in the state of Colorado, but the largest city by area at over 195 square miles. The population of Colorado Springs has grown dramatically since the 1990s, increasing 69.44% from 1992 to the estimated 2022 population and has an average population density of 2,575 people per square mile. Fire Stations 21 and 22, are strategically located in the far north-east end of the city in an effort to improve response time in those zones where population is less dense. A greater number of stations are centrally located in the city to address areas with the greatest overall population density.

With five military installations in the vicinity, Colorado Springs has a large military population of both active-duty personnel and retirees. According to the 2020 census, approximately 11% of people identify as U.S. military veterans. Another 14% of persons are over the age of 65, and 7.5% of people report being foreign born.

The following is a breakdown of the population by race, according to the 2020 census:

- White alone, not Hispanic or Latino 67.9%
- Hispanic/Latino 18%
- Black or African American alone 6.3%
- Asian alone 2.8%
- American Indian/Alaskan Native alone .9%
- Persons reporting two or more races 7.9%

The median household income is \$72,633 and the area median age is 35. The median home value is \$294,500 and the median monthly rent is \$1,196 according to the 2020 census.

The issue of homelessness is not unique to Colorado Springs. The city’s homeless numbers per capita are comparable to other similarly populated areas across the country. Homelessness-related issues have been, and continue to be, some of the most difficult issues facing the community even though the numbers have dropped for two years in a row. A federally mandated survey is conducted every year by Community Health Partnership (CHP). In 2021, 1,156 residents experiencing homelessness were counted during the point in time survey. That number was 174 fewer than the population estimate in 2020. While the community expresses concern regarding the effects of homelessness including trash, safety of its parks, camping on public property, neighborhood crime, an increase in service calls and damage from illegal fires, advocate groups for the homeless believe the City should be doing more to assist this population. Finding the balance between providing services to those experiencing homelessness, while respecting the needs and concerns of all residents remains a challenge and priority for the City.

## **Transportation Network**

### **Roads**

There are 6,190 street lane miles maintained by the City of Colorado Springs. Several hundred intersections exceed 15,000 vehicles daily, with the major intersections handling between 30,000 and 60,000 vehicles per day. Examples are Garden of the Gods Road at Interstate 25, and Powers Boulevard at Galley Road. Interstate 25, running north-south, and U.S. Highway 24, running

east-west, are major thoroughfares with each handling over 100,000 vehicles per day (Figure 5, page 17).

### **Rail Lines**

BNSF Railway and Union Pacific operate rail lines through Colorado Springs. The main rail lines through Colorado Springs run parallel to Interstate 25 and travel north and south; rail line traffic does not include passenger trains (Figure 5, page 17).

### **Airport**

The Colorado Springs Airport, marketed as “Colorado’s Small Airport,” is situated on the city’s southeast side (Figure 5, page 17). It is the second busiest commercial service airport in the state. Runways and taxiways are shared with the adjacent Peterson Space Force Base. It hosts five major commercial airlines and sees more than 840,000 passengers annually. Although, this fluctuated greatly during the pandemic when passenger traffic dropped more than half to 363,845 in 2020.

### **Waterways**

There are no navigable waterways within Colorado Springs; however, all are subject to flash flooding during heavy or excessive rainfall in a short period of time. The two largest waterways in Colorado Springs are Fountain Creek and Monument Creek; there are several other smaller waterways and drainages within the city. Monument Creek flows south and enters the city near the Air Force Academy. Fountain Creek flows east and enters the city just east of Manitou Springs. Its watershed provides about 15 percent of Colorado Spring’s drinking water, as well as economic and recreational opportunities for some half million area residents and countless tourists. Monument Creek flows from north to south and falls about 72 feet in elevation. Its watershed is bounded on the north by the Palmer Divide and extends from Black Forest west to Rampart Range. Monument Creek empties into Fountain Creek near the intersection of Interstate 25 and Highway 24 just west of downtown. Once Monument Creek reaches this confluence the combined creek becomes Fountain Creek. It then flows south to the city of Pueblo, Colorado and beyond.

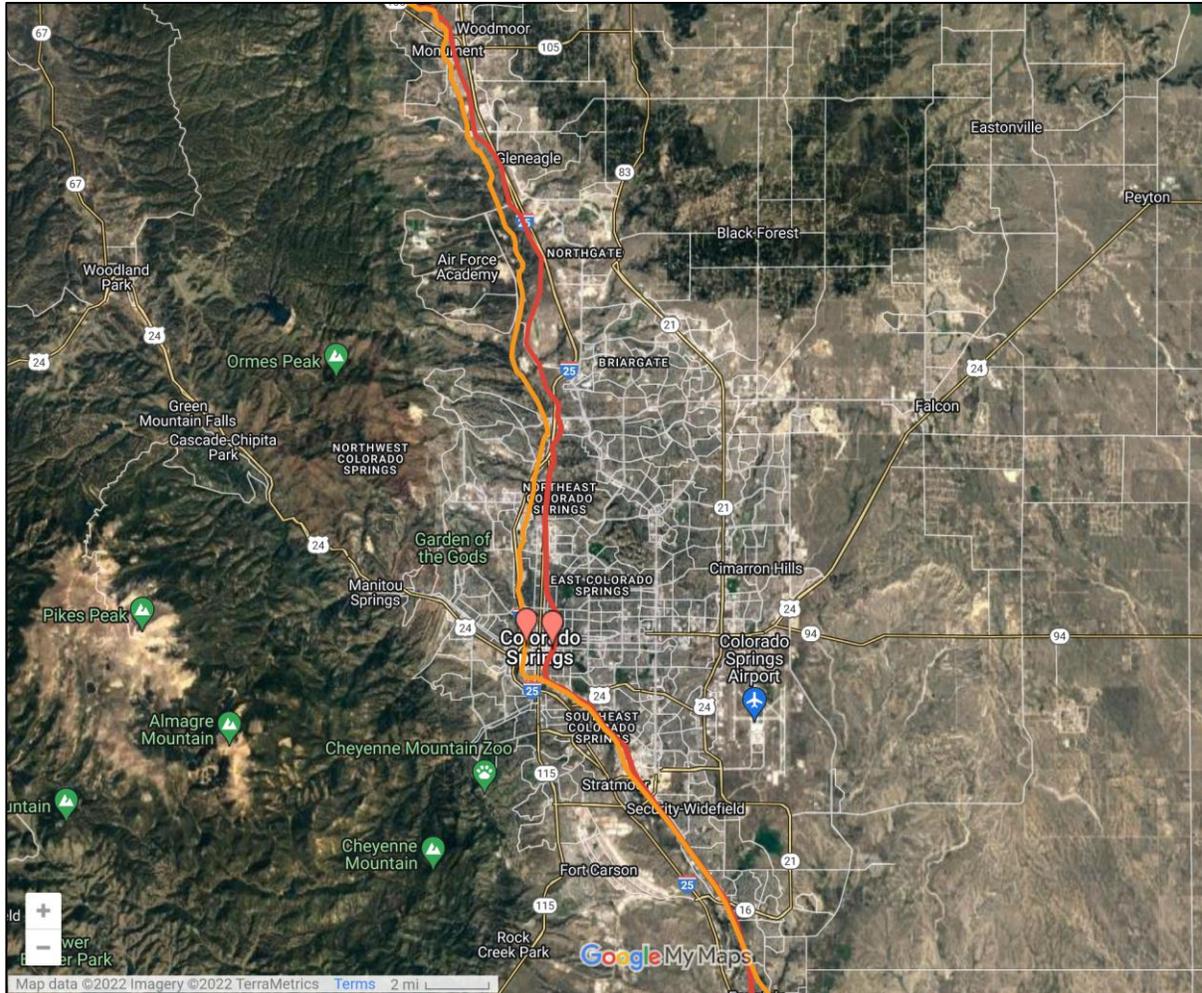


Figure 5 – Map of Colorado Springs Roads, Rail Lines and the Colorado Springs Airport

<https://www.google.com/maps>

### **Critical Infrastructure (2A.9)**

There are many physical assets that are critical to the functionality of the City of Colorado Springs. These include transportation, government buildings, military and civil defense, fire and police facilities, hospitals, schools, bridges, power plants, and water and wastewater treatment plants.

The municipally owned Colorado Springs Utilities enterprise provides electric, natural gas, water and wastewater services. Utility facts:

- Electric reliability: 99.99%
- Average power interruption: 40.95 minutes (in 2019)
- Nearly 75% of electric lines are underground
- Diverse fuel mix for electric generation, including 11% renewables
- Able to generate 99% of its power, eliminating risk for capacity constraints

Colorado Springs is host to five military installations for the aerospace and defense industry including the United States Air Force Academy, Peterson Space Force Base, Shriever Space Force Base, Ft. Carson, and the Cheyenne Mountain Complex (Space Force Station and North American Aerospace Defense Command (NORAD)). In addition, Lockheed Martin, Northrop Grumman and 250-plus companies provide advanced technologies in national defense, global positioning systems, cybersecurity, and satellite communications.

Healthcare in Colorado Springs is grounded in two major health systems; they are UC Health and Centura Health. UC Health represents the largest health care system, includes three local hospitals and is home to clinics for cardiac, orthopedic, and pulmonary care. Originally founded in the 1880's by the Sisters of St. Francis, and the Sisters of Charity, Penrose Hospital partnered with Centura Health to establish the second major health system in the city. Both establishments added facilities in recent years and continue to expand.

The extensive telecommunications infrastructure in Colorado Springs supports military assets, intelligence services, data centers and information technology businesses. A large number of fiber trunk lines span the region for state-of-the-art communication capabilities.

Over 50 structures in Colorado Springs and the surrounding area have been deemed historically and architecturally notable and worthy of preservation. In 2019, the city of Colorado Springs approved a Historic Preservation Master Plan. Structures of note include: the Colorado Springs Pioneer's Museum, which was the El Paso County Courthouse from 1903 to 1973; El Pomar; the Will Rogers Shrine of the Sun; Van Briggle Pottery Works, and the City Auditorium.

In July 2021, one of the area's largest employers, Amazon, opened its 3.7 million-square-foot fulfillment center, and shortly after opened its 300,000-square-foot sorting center. Both are located to the south-east in the Colorado Springs Airport's Peak Innovation Park.

There are also numerous facilities with large populations of people, such as tourist attractions, retail centers, sports, recreation and entertainment facilities, places of worship, medical buildings, universities/colleges, and high-density housing. Weidner Field opened in downtown Colorado Springs in April 2021 and is home to the Colorado Springs Switchbacks U.S. men's professional soccer team. While primarily designed for soccer, the stadium will be capable of hosting other types of events, with a capacity as great as 15,000.

The U.S. Olympic & Paralympic Museum is also located in downtown Colorado Springs and opened in July 2019. The state of the art, interactive 60,000-square foot U.S. Olympic & Paralympic Museum is dedicated to America's greatest athletes and their compelling stories. The Broadmoor World Arena is the sports and entertainment arena for the Pikes Peak region located in south-west Colorado Springs. The Broadmoor World Arena can seat 8,000 and opened in 1998.

## ***Agency Programs and Services (2A.8, 5A, 5B, 5C, 5E, 5F, 5G, 5H, 5K)***

The Colorado Springs Fire Department is a full service, all-risk department capable of responding to any type of fire, EMS, tactical rescue, hazardous materials, or wildland fire call. The department maintains a modern fleet of well-equipped apparatus distributed throughout the service area and staffed with highly trained employees. The CSFD has a total of 49 mutual aid (MA), memorandum of understanding (MOU), and intergovernmental agreement (IGA) response agreements with all surrounding fire departments and military installations.

### **Fire Suppression (5E)**

The CSFD is the primary agency to respond to fires in structures, motor vehicles, and any other location where uncontrolled fire is taking place. The department follows standard incident command procedures in accordance with department procedures and NFPA standards. All engine companies are trained and equipped to fight fires of all types. The CSFD responded to 5,138 fire incidents (including false alarms) in 2021, which is approximately 7.1% of all calls. The department operates 23 fire stations with equipment consisting of 23 engines, six ladder trucks, one hazardous materials vehicle, and one heavy rescue vehicle. Additionally, two wildland engines, 14 brush trucks, four squads and one hazmat vehicles are maintained among stations throughout the city. In general, engines carry 500 gallons of water, 1,500 feet of 3” supply hose, 700 feet of attack hose in varying diameters, and a pump capable of delivering 1,500 gallons per minute. Trucks are equipped with hydraulic elevating ladders, ground ladders, and hydraulic, pneumatic and electric heavy rescue tools. The rescue vehicle carries a variety of rescue tools, as well as a full complement of ground ladders.

An effective response force should handle fires that occur shortly after they start and are within the maximum travel time for the full assignment of fire companies according to the structure’s risk level. As established by the City Council 1999 Resolution (Resolution), the Colorado Springs Fire Department staffs first due emergency response resources throughout the city to reach the site of an incident within eight minutes from the time of the call 90% of the time. The typical first alarm assignment consists of two engines, two trucks, and one battalion chief. An

annual appraisal is completed to assess program performance. All engines, trucks, the hazardous materials vehicle, and the heavy rescue vehicle are staffed with four firefighters. All CSFD firefighters are certified to the Firefighter II level, at a minimum.

### **Emergency Medical Services (EMS) (5F)**

The Colorado Springs Fire Department is the first response agency to every type of perceived emergency involving the health of people in the community. Per the Code of the City of Colorado Springs, the CSFD assumes medical control at the scene of all emergency medical calls in its jurisdiction. In 2021, CSFD responded to 36,572 calls specifically identified as medical.

All firefighters below the rank of battalion chief maintain a minimum certification of Emergency Medical Technician-Basic (EMT-B) and can provide basic level medical care including cardiopulmonary resuscitation (CPR), automatic external defibrillation (AED), and first aid for injuries and illnesses.

The department is approved to have 86 promoted firefighter paramedics, who are certified to Emergency Medical Technician-Paramedic (EMT-P) and can provide advanced care including heart monitoring, intravenous drug therapies, and other advanced life support (ALS) interventions for critical victims of trauma or medical emergencies. This allows the CSFD to respond with ALS capability on all 23 engines. A department goal is to have ALS capability on all trucks and specialty vehicles.

In addition, the department has a Tactical Emergency Medical Services (TEMS) team that is located at Fire Station 2. Team members receive training from both the Colorado Springs Police Department's Tactical Enforcement Unit (TEU) and the El Paso County Sheriff's Special Weapons and Tactics (SWAT) team. These firefighters respond with law enforcement to tactical situations requiring medical assistance, such as active shooter incidents, and high-risk warrant services, including illegal marijuana grow facility enforcement.

## **CMED**

In March 2022, CSFD launched its Community Medicine Program (CMED). In March 2022, CSFD launched the new CMED Program (Community Medicine). CMED consists of four (4) units each manned with an EMT and paramedic. The intent of the CMED program is to further the current tiered response model by aligning patient needs appropriately and taking steps to reduce the medical workload on heavy apparatus. CMED Units operate during peak hours, are dynamically assigned throughout the city, and respond to lower acuity, “CMED appropriate” calls. If no CMED units are available, and a call in the queue exceeds the time limit, the system dispatches a CSFD apparatus.

## **Community and Public Health (CPH)**

In 2013, the CSFD began its community and public health initiative, which has grown into a robust division of the department. The division operates several initiatives including: the Alternate Response Team (ART), Crisis Response Team (CRT), Aging in Place Program (APP), High Acuity At Risk Team (HAART), Homeless Outreach Program (HOP), Transition Assistance Program, and EMS policy and procedure analysis and advocacy.

The mobile integrated health unit, known as CARES (Community Assistance, Referral and Education Services), involves direct interaction with citizens before they need to call 911. This program identifies super utilizers of the emergency health system and redirects them to more appropriate care, which leads to better patient outcomes.

The mobile mental health unit, known as CRT (Community Response Team), responds to calls from the Colorado State Crisis Hotline, as well as 911 calls, to perform psychiatric evaluations and medically evaluate patients in the field for direct to mental and behavioral health treatment facilities.

In January 2019, the Community and Public Health Division (CPH) started a small pilot program. The Aging in Place Program (APP) provides support to elders struggling to age in place in their homes. By July of that year, the Next50 Initiative partnered with CSFD through a grant to support and expand this program. The Aging in Place Program maximizes the first

responder's role, as they are often first to recognize when a senior citizen is struggling to age in place. While in the home assisting the elder, first responders may observe home and living conditions that indicate the elder is in need of home care, nursing care, or other community-based support and services.

In August 2019, CPH launched a limited pilot of the Homeless Outreach Program (HOP), which provides targeted, intensive outreach to high needs utilizers in downtown Colorado Springs. HOP operates in collaboration with CARES, the Colorado Springs Police Department's (CSPD) Homeless Outreach Team (HOT) and Downtown Area Response Team (DART), the City of Colorado Springs Homelessness Prevention & Response Coordinator, Homeward Pikes Peak, The Place, and Coordinated Entry through Pikes Peak Community Health Partnership. Through rapport building, needs identification, and medical and behavioral health navigation, with the addition of housing assessment solicitation/completion and behavior modification, HOP is designed to increase access to healthcare and improve quality of life for targeted individuals. Although initially a pilot, HOP was expanded to full program status in 2020.

Outreach and prevention consist of providing basic prevention resources to citizens through free blood sugar/blood pressure clinics, free flu, pneumonia and Tdap vaccination clinics, and educational opportunities.

Policy and procedure analysis and advocacy consists of working to engage policy makers with relevant data to enact system-level changes that make sense for both patients and the community as a whole.

### **Hazardous Materials Response (5H)**

The Hazardous Materials Response Team (HMRT) works in a cooperative effort with city, county, state, and federal governments on environmental regulations and code compliance issues, as well as responds to and mitigates hazardous materials spills/releases. An annual appraisal is completed to assess program performance. The CSFD is the Designated Emergency Response Agency (DERA) for incidents occurring within the city limits.

All CSFD firefighters are certified to the hazardous materials Operations Level. The members of the HMRT are trained to the Technician Level and respond from Fire Stations 14 and 20. This group of individuals also serves as the primary Safety Group in all major fire emergencies in the city. The hazmat vehicle and the decontamination unit are regional assets for the Department of Homeland Security, South Central Region of Colorado.

### **Technical Rescue Services (5G)**

The CSFD has the capability to respond to a vast variety of rescues, including automobile extrication and other transportation rescues, building collapse or other confined spaces, swift water (flood), high angle (rock rescue), fires, and machinery entrapment. The Technical Rescue Program is housed at Fire Station 17 and provides many technical rescue services; an annual appraisal is completed to assess program performance. The rescue vehicle is staffed full time and deployed with four firefighters. Members of this program are trained to the Technician Level in many disciplines of rescue, including swift water, dive, ice, trench, confined space, extrication, high angle, and structural collapse. The rescue vehicle and a supplemental trailer pulled by a utility truck are equipped with specialized equipment for all these disciplines. Additionally, 18 members of the program are members of the Colorado Task Force 1 (CO-TF1) and Urban Search and Rescue (USAR) team under the Federal Emergency Management Agency (FEMA). They may be deployed to incidents across the country.

The High Angle Program is housed at Fire Stations 5 and 13, which are located near areas where such rescues frequently occur including the garden of the Gods and North Cheyenne Canyon. Members of this program are trained to the Technician Level in high angle rescue and are highly familiar with the local recreational climbing areas. Station 13 has four off-road motorcycles and Station 5 has two motorcycles to rapidly respond to areas where heavy fire apparatus cannot.

### **Wildland Fire Suppression (5K)**

Wildland fire suppression is one of the department's highest priorities. All 23 Type I engines are equipped with wildland hose, firefighting equipment, and personal protective equipment. Fire

Stations 4, and 9 are all located in the Wildland Urban Interface (WUI) area and assigned to the Wildfire Suppression Program. In addition to the Type I engine, these stations are equipped with Type 3 wildland engines, which are outfitted exclusively with equipment and tools specific to wildland firefighting. Additionally, 14 of the remaining 23 fire stations have brush trucks (Type 6 engines), which are deployed with the engines on calls for grass/brush fires. All firefighters are trained to the Operations Level in wildfire skills. Members of the Wildfire Suppression Program maintain multiple or various certifications via the National Wildfire Coordinating Group (NWCG). As staffing allows, members of the program are deployed to wildfires around the country because of their high level of expertise.

### **Division of the Fire Marshal (5A, 5C)**

The Division of the Fire Marshal (DFM) provides all fire prevention services. This division issues permits for new construction activities, fire protection systems, hazardous materials use, and storage, special events, temporary tents, and professional fireworks displays. In addition, the DFM oversees the Community Education and Outreach and Wildfire Mitigation Sections.

Fire code enforcement is carried out by 12 fire code inspectors. This includes four that specialize in hazardous materials inspections, one of which, also specializes in marijuana facilities. The 11 inspectors conduct regular inspections and manage complaint referrals. The division has another nine inspectors that focus on new construction and five fire protection engineers that conduct plan reviews on fire protection systems and new construction. Additionally, fire code inspectors are trained in fire origin and cause investigations. Technical Services works with locations that have a high risk to the community. They inspect and review plans for large developments, locations with hazardous materials inventories, marijuana grow facilities, high pile storage facilities, and the ensure that proper emergency access is designed and maintained.

### **Community and Education Outreach (5B)**

The CSFD Community and Education Outreach section offers several risk reduction programs to the community. Together, these programs connect fire safety, injury prevention, systems engineering, fire code, emergency preparedness, fire operations pre-planning, and one-on-one

training. The programs are facilitated through four staff under the leadership and management of the Fire Marshal. An annual appraisal is completed to assess program performance. These programs include:

- BusinessLink – a training program for businesses of all sizes focusing on maintaining a safe facility, fire extinguisher training, and evacuation and safety plans.
- CampusLink – a training program for students and faculty of area college campuses in the areas of fire prevention, evacuation drills, and the proper use of 911.
- CARELink – a training program for residents and staff of independent, assisted, memory care and nursing facilities on emergency/evacuation planning, fire drills, proper use of 911, File of Life and general fire and life safety topics.
- SchoolLink – an integrated risk reduction program to provide schools with the education and resources to have a fire-safe school.
- SafetyFactor<sup>2</sup> – an education program for second graders teaching fire safety, the importance of wearing bike helmets, what to know and do in an emergency situation.
- FireFactor – a prevention program developed for middle school students to educate them on the proper use of fire and the consequences of misuse.
- FireFactor<sup>2</sup> – an intervention program for youth who have set a fire or have a high curiosity level of fire.
- FireFactor<sup>3</sup> – an information program for caregivers of youth who have misused fire.

### **Wildfire Mitigation Unit**

The Wildfire Mitigation Unit assists homeowners in reducing their wildfire risk by providing education and conducting mitigation activities. The unit maintains a wildfire risk map by conducting wildfire hazard evaluations on homes in the WUI. In 2021, 2039.4 acres of fuel was reduced from neighborhoods that lie in the WUI. In addition, Wildfire Mitigation staff continued to provide customer service in a timely manner and responded to all requests for chipping services, plus additional requests. Wildfire Mitigation presented 22 neighborhood meetings with a total of 601 attendees and conducted 455 on-site consultations (409 were conducted in 2020).

## ***All-Hazard Risk Assessment (2B.1, 2B.2, 2B.3)***

The Colorado Springs Fire Department is an all-hazards department and responds to a wide variety of emergency and non-emergency incidents at differing levels of risk. The most basic definition of risk is the possibility of loss or injury. Risk is defined locally as the likelihood of emergency incident occurrence, the potential for life or property loss, local impact, and monetary replacement cost. The CSFD considers risk to both the community and to emergency responders.

The CSFD identifies, assesses, categorizes, and classifies risk in a method that allows it to deploy its resources most effectively. Methodology includes historical calls for service evaluated by probability and consequence to determine and validate the appropriate level of service and types of resources necessary to mitigate the risk. Fire protection system data also plays a role in risk assessment with engineered fire prevention reducing the risk in both new and renovated structures.

The Colorado Springs Fire Department uses the ESO program to record all calls for service. ESO was implemented in August of 2020. Crews are required to complete reports for all calls for service within ESO. The data is extracted and reported regularly by station responding areas or still districts.

Classifications of risk are according to call type, including fire suppression, medical, hazardous materials, technical rescue, and wildland. Associated risks in each classification are then put into the categories of low, moderate, high, or maximum. Additionally, classifications and categories of risk are identified within the total response area and in each planning zone (fire station district).

Outputs (resource utilization) and outcomes (damage to property or injury to living beings) are assessed through several methods. Personnel and other resources utilized on calls for service are tracked through ESO/EHR. Property loss/save data is collected by responding officers or fire investigators and reported in ESO. Outputs and outcomes are assessed through daily tracking and monthly reports.

## Natural Hazard Exposure

The potential risks from natural and human-caused hazards (Figure 6) have been summarized in the Pikes Peak Regional Multi-Hazard Mitigation Plan 2020. The Plan defines the hazards as six distinct hazard categories with various impacts and/or variations of each category.

Hazard Category	Hazard Impacts or Variations
Flood	Flood, Mud or Debris Flow, Dam/Levee Failure
Severe Weather	Hail, Drought & Extreme Heat, Lightning, Tornado, Wind, Winter Storm
Avalanche	Avalanche
Geologic	Earthquake, Subsidence & Sinkholes, Landfall or Rockfall
Wildfire	Wildfire
Human-caused	Hazardous Materials, Extreme Acts of Violence, Cyber Attack, Pandemic/Epidemic, Major Aircraft Incident

Figure 6 – Hazard Potential Risks

A risk score was developed for each hazard; negligible is identified as the lowest risk and high is identified as posing the greatest risk. Flood, hazardous materials, landfall/rockfall, mud or debris flow, and wildfire were identified as high-risk probability and magnitude natural hazards in Colorado Springs (Figure 7, page 29).

Whereas wildfire is identified as high risk, the area of heightened risk is identified by the CSFD as the City of Colorado Springs Wildland Urban Interface (WUI); the area where homes are adjacent to forested areas. The Colorado Springs WUI shares over 22 miles of boundary with federal lands, with slopes that range from 0% to 45%. The City of Colorado Springs WUI spans 32,655 acres, making it one of the largest WUI zones in the entire country. Nearly 20% of the city’s population resides in the WUI and is at risk for wildfire, or an estimated 95,792 people. The majority of the WUI is in the foothills, south of the United States Air Force Academy, west of Interstate 25, and continuing south to Cheyenne Mountain State Park. There are also several large parcels of bluffs and mesas within the interior of the city including Palmer Park and University Park.

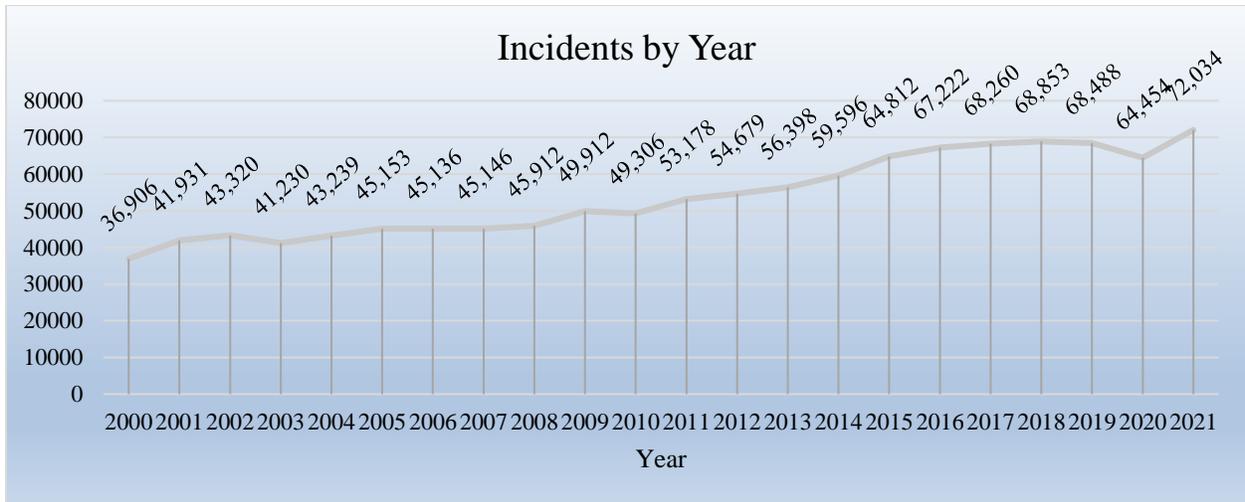
	<b>Colorado Springs</b>
<b>Aircraft Incident</b>	Moderate
<b>Avalanche</b>	Low
<b>Cyber-Attack</b>	Moderate
<b>Dam/Levee Failure</b>	Moderate
<b>Drought &amp; Extreme Heat</b>	Moderate
<b>Earthquake</b>	Moderate
<b>Extreme Acts of Violence</b>	Moderate
<b>Flood</b>	High
<b>Hail</b>	Moderate
<b>Hazmat</b>	High
<b>Landfall/Rockfall</b>	High
<b>Lightning</b>	Moderate
<b>Mud or Debris Flow</b>	High
<b>Pandemic/Epidemic</b>	Moderate
<b>Subsidence &amp; Sinkholes</b>	Moderate
<b>Tornado</b>	Moderate
<b>Wind</b>	Moderate
<b>Wildfire</b>	High
<b>Winter Storm</b>	Moderate

Figure 7 – Hazard Risk Score

The City of Colorado Springs experienced two of the largest wildfires in its history in consecutive years with the Waldo Canyon Fire in 2012 and the Black Forest Fire in 2013. The Waldo Canyon Fire burned 18,247 acres within El Paso County and destroyed 347 homes within the city. The Black Forest Fire burned over 14,000 acres and destroyed 489 homes in an area adjacent to the city. Total insurance claims for these fires combined were \$874,200,000. Although the CSFD has a robust wildfire mitigation program, the dry climate of the city and the challenging terrain in the WUI will continue to pose a significant wildfire threat.

**Service Demand (2B.2)**

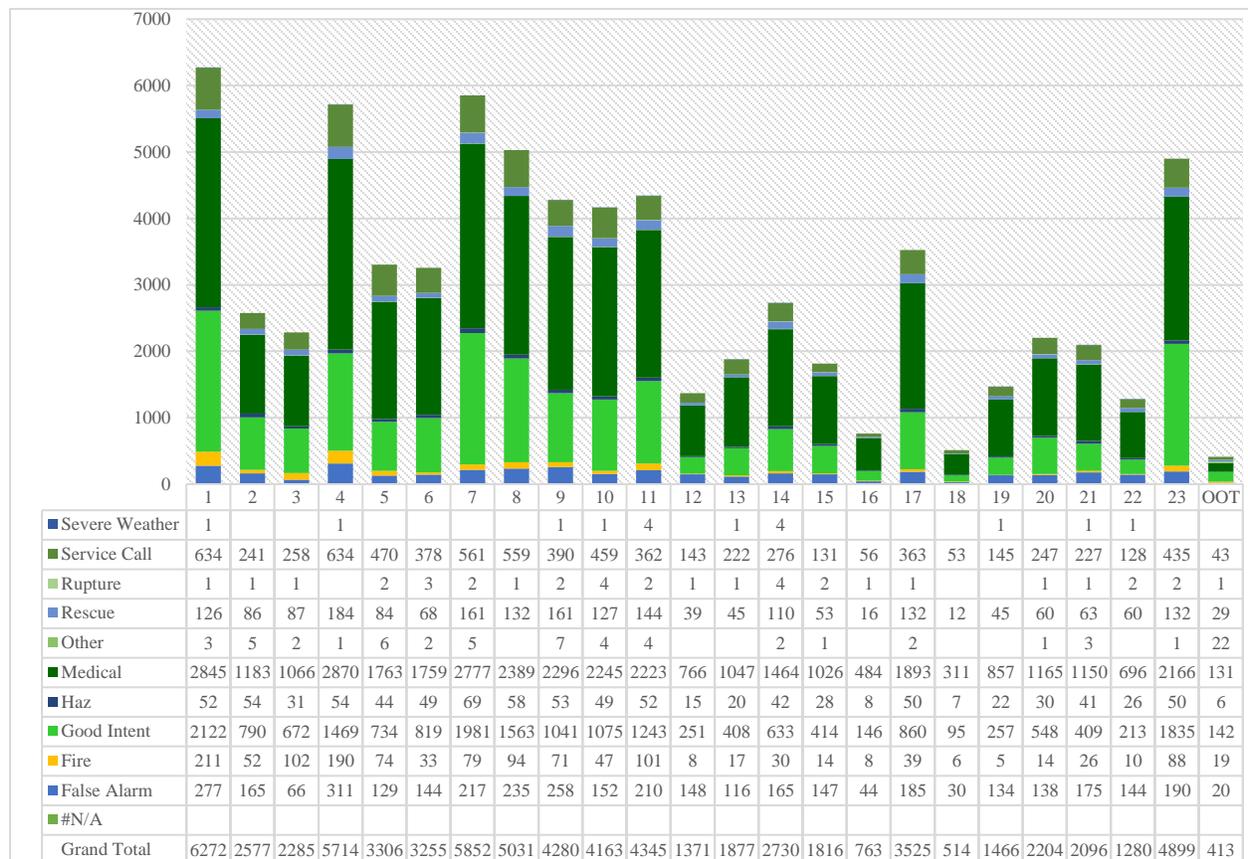
The CSFD responded to 72,034 incidents in 2021, showing a 11% rise over the prior year. Medical calls represented close to 51% of the total call volume, totaling 36,572 incidents. This was a 6% increase over the prior year. Of the total call volume, 38% of incidents were classified as Good Intent or Service Calls. The CSFD Statistical Abstract provides a thorough presentation of all calls to which the department responds.



## Total Responses by Incident Type

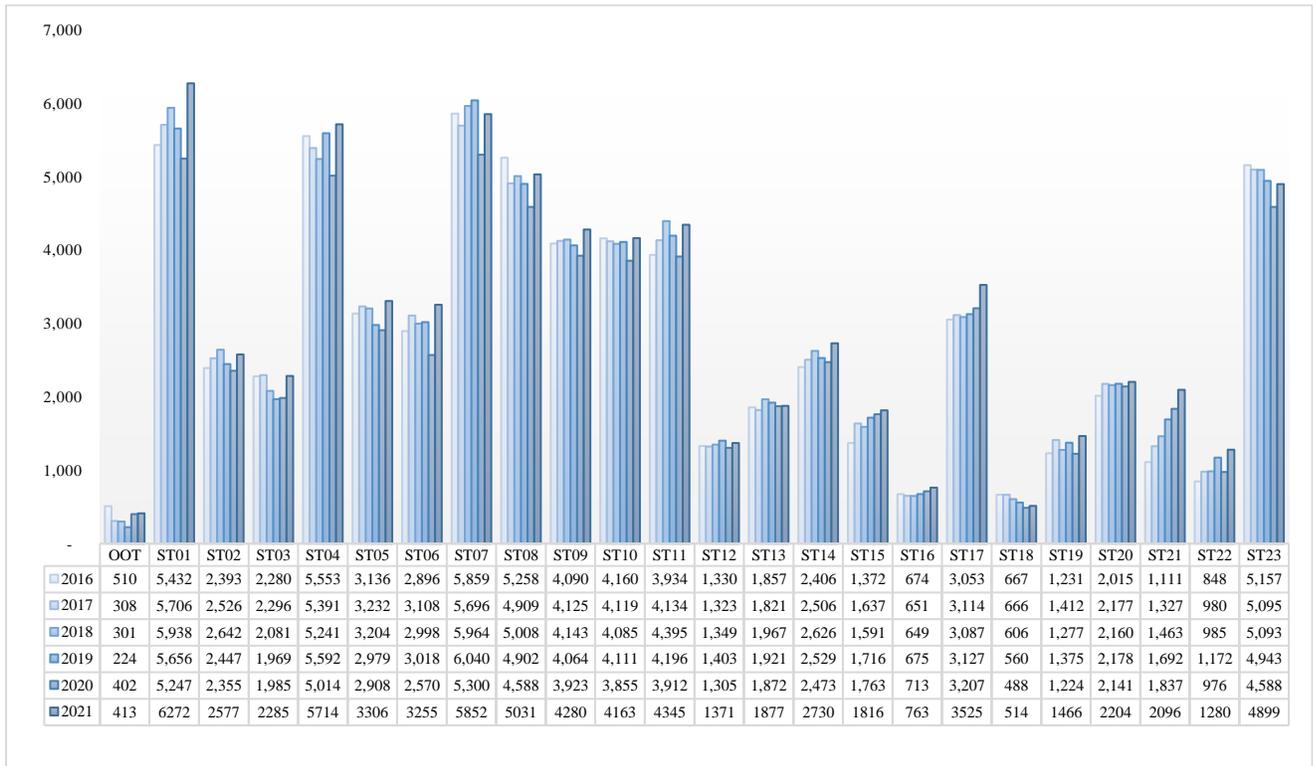
Year	False Alarm	Fire	Good Intent	Hazardous Conditions	Medical	Other	Rupture	Rescue	Service Calls	Severe Weather	Not Set	Total
2016	3,060	680	9,984	363	42,765	38	2,820	30	7,458	13	11	67,222
2017	3,086	692	10,844	441	43,338	55	2,696	48	7,031	26	3	68,260
2018	3,005	758	11,815	361	42,476	30	2,843	35	7,509	13	8	68,853
2019	3,462	593	12,011	401	41,999	27	2,774	36	7,171	10	4	68,488
2020	3,373	945	16,133	597	34,530	41	2,220	35	6,566	11	3	64,454
2021	3,801	1,344	19,722	910	36,572	21	2,158	36	7,415	55		72,034

## Incidents by Still District 2021

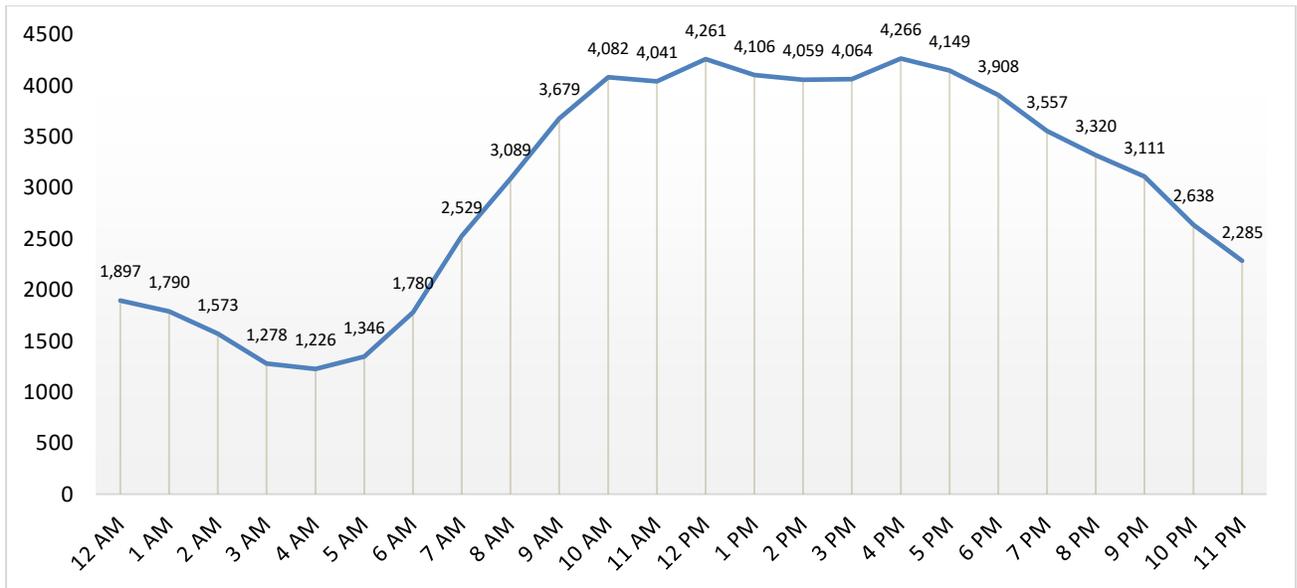


Incident types listed by NFIRS groupings

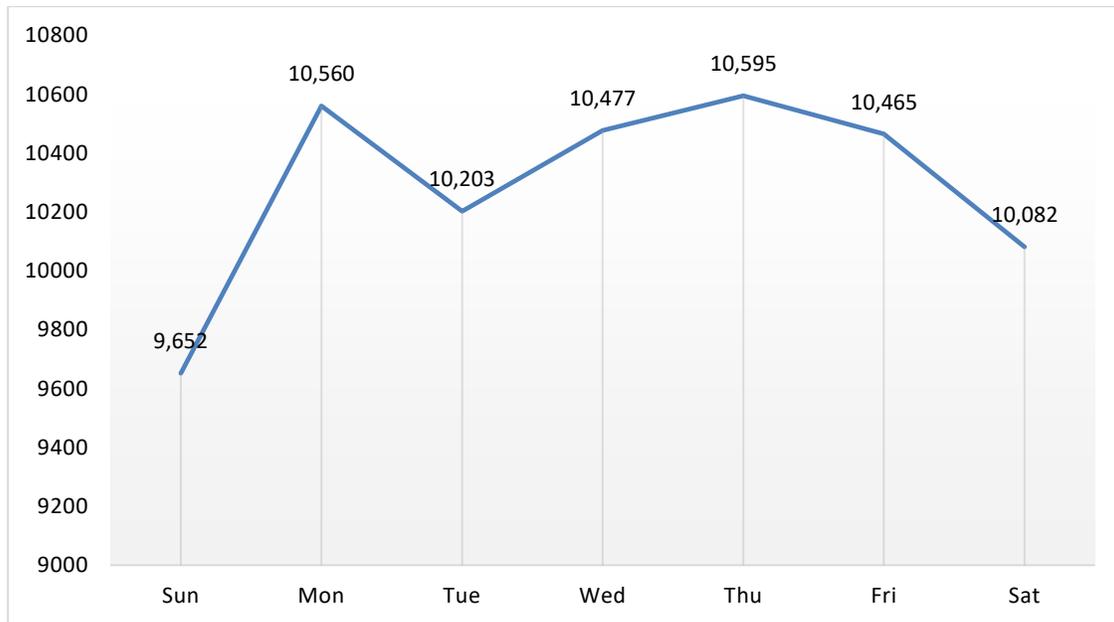
### Incidents by Still District - Past 5 years



### Incidents by Hour of Day



### Incidents by Day of Week



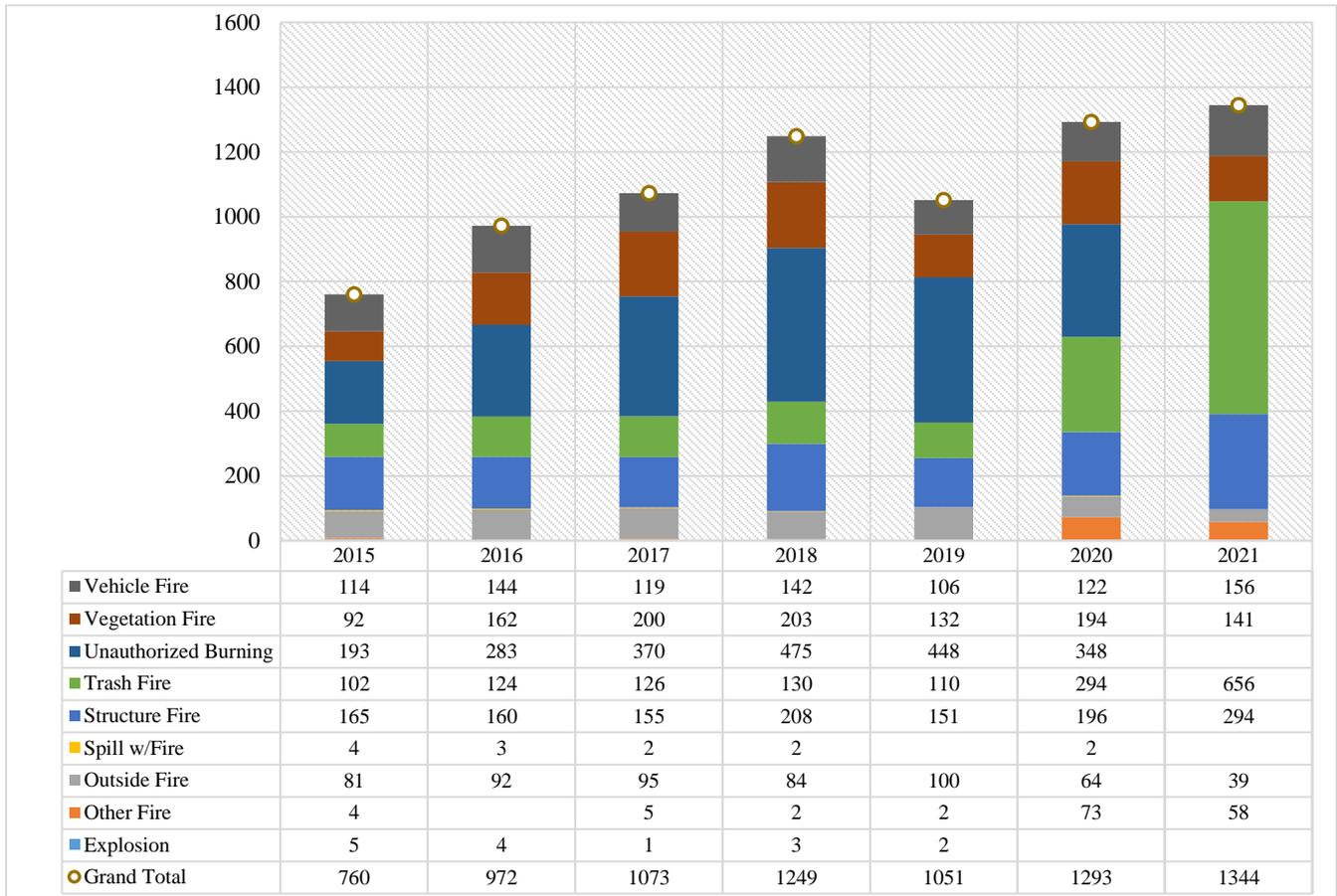
### Incident Overview

Year	False Alarm	Fire	Good Intent	Hazardous Conditions	EMS	Other	Rupture	Rescue	Service Calls	Severe Weather	Not Set	Total
2016	3,060	680	9,984	363	42,765	38	2,820	30	7,458	13	11	67,222
2017	3,086	692	10,844	441	43,338	55	2,696	48	7,031	26	3	68,260
2018	3,005	758	11,815	361	42,476	30	2,843	35	7,509	13	8	68,853
2019	3,462	593	12,011	401	41,999	27	2,774	36	7,171	10	4	68,488
2020	3,373	945	16,133	597	34,530	41	2,220	35	6,566	11	3	64,454
2021	3,801	1,344	19,722	910	36,572	21	2,158	36	7,415	55		72,034

## Dispatched vs. Incident Type

Call Dispatch Type Grouped										
Incident Type	Fire	Good	Hazardous	Medical	Other	Rescue	Service	Severe	Na	Total
		Intent	Condition				Call	Weather		
<b>2021</b>	<b>3,040</b>	<b>4,214</b>	<b>1,075</b>	<b>57,585</b>	<b>171</b>	<b>897</b>	<b>4,923</b>	<b>12</b>	<b>117</b>	<b>72,034</b>
False Alarm	133	3,184	23	384	2	8	60		7	3,801
Fire	1,225	13	3	14			88		1	1,344
Good Intent	819	649	219	16,817	137	133	914	2	32	19,722
Hazardous Cond	113	150	529	70	4	5	38	1		910
Medical	19	19	6	35,858	5	231	390		44	36,572
Other	4	1	1	7	2		6			21
Over-Pressure	26		25	1,551	3	453	94	1	5	2,158
Rescue	24	6	3	2			1			36
Service Call	669	189	260	2,882	18	65	3,324	1	7	7,415
Severe Weather	8	3	6			2	8	7	21	55
<b>2020</b>	<b>2,720</b>	<b>3,851</b>	<b>1,022</b>	<b>51,693</b>	<b>529</b>	<b>934</b>	<b>3,729</b>	<b>11</b>		<b>64,489</b>
False Alarm	154	2,706	76	371	10	3	44	1		3,365
Fire	787	10	2	9	95		43			946
Good Intent	964	771	330	12,849	170	128	860	2		16,074
Hazardous Cond	46	98	375	36	5	4	28	1		593
Medical	12	26	20	33,798	62	231	350			34,499
Other	22	12	5	109	18	4	29			199
Over-Pressure	13	7	13	1			1			35
Rescue	15		20	1,584	16	493	91			2,219
Service Call	702	221	181	2,936	153	71	2,283	1		6,548
Severe Weather	5							6		11
<b>2019</b>	<b>2,260</b>	<b>4,323</b>	<b>1,086</b>	<b>55,580</b>	<b>484</b>	<b>1,069</b>	<b>3,665</b>	<b>21</b>		<b>68,488</b>
False Alarm	77	2,843	60	432	8	5	34	3		3,462
Fire	469	6	2	5	85		26			593
Good Intent	1,112	1,080	468	8,025	144	126	1,046	10		12,011
Hazardous Cond	34	65	257	27	1	3	14			401
Medical	20	20	12	41,325	79	280	262	1		41,999
Other	6	1	3	11	1		9			31
Over-Pressure	4	5	23				4			36
Rescue	4		39	2,001	14	597	119			2,774
Service Call	531	303	220	3,754	152	58	2,148	5		7,171
Severe Weather	3		2				3	2		10

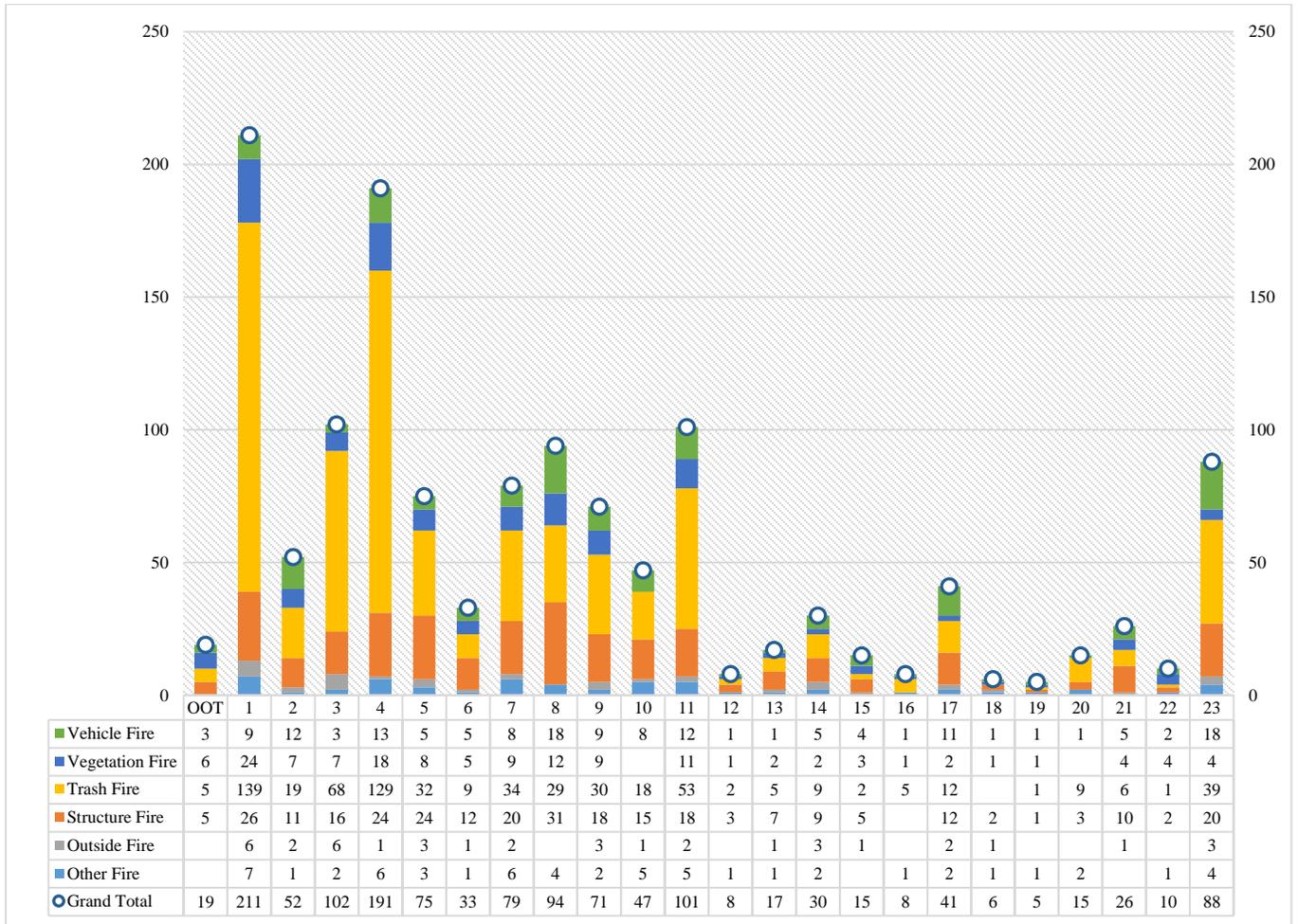
## Fire Suppression Overview



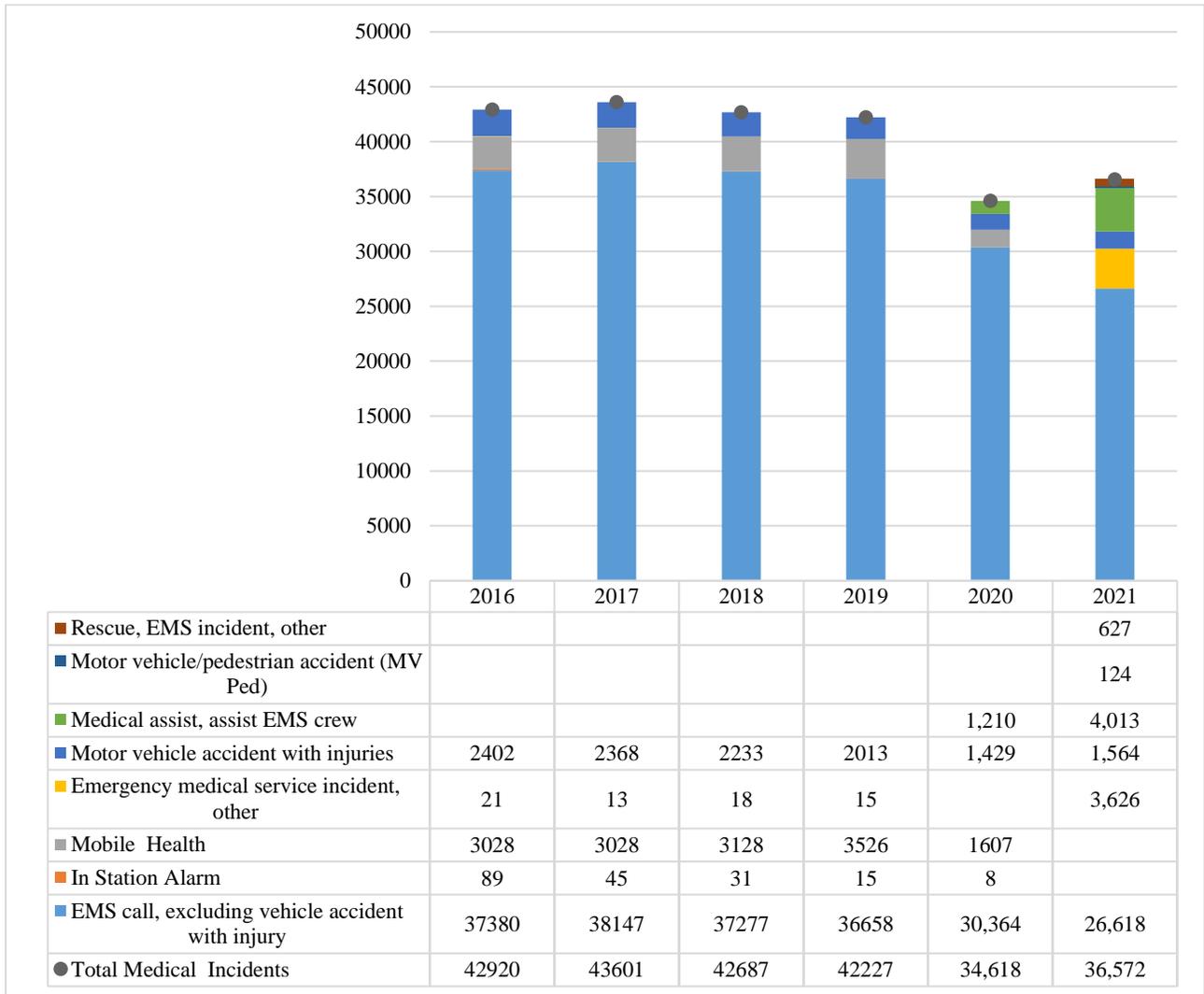
## Fire Loss from ESO

Property Use	Estimated Contents Loss	Estimated Property Loss	Total Loss
Assembly	\$112,791	\$63,050	\$175,841
Educational	\$2,150		\$2,150
Health Care, Detention & Correction	\$2,550	\$200,000	\$202,550
Industrial, Utility, ...			\$0
Manufacturing, Processing	\$1,500	\$2,500	\$4,000
Mercantile, Business	\$453,746	\$1,817,517	\$2,271,263
Outside or Special Property	\$746,806	\$1,644,904	\$2,391,710
Residential	\$2,583,240	\$6,642,331	\$9,225,571
Storage	\$304,872	\$203,897	\$508,769
Undetermined	\$4,100	\$22,500	\$26,600
Blank	\$4,105	\$65,205	\$69,310
<b>Grand Total</b>	<b>\$4,215,860</b>	<b>\$10,661,904</b>	<b>\$14,877,764</b>

## Fire Incident Type by Still District



## Emergency Medical Services Overview



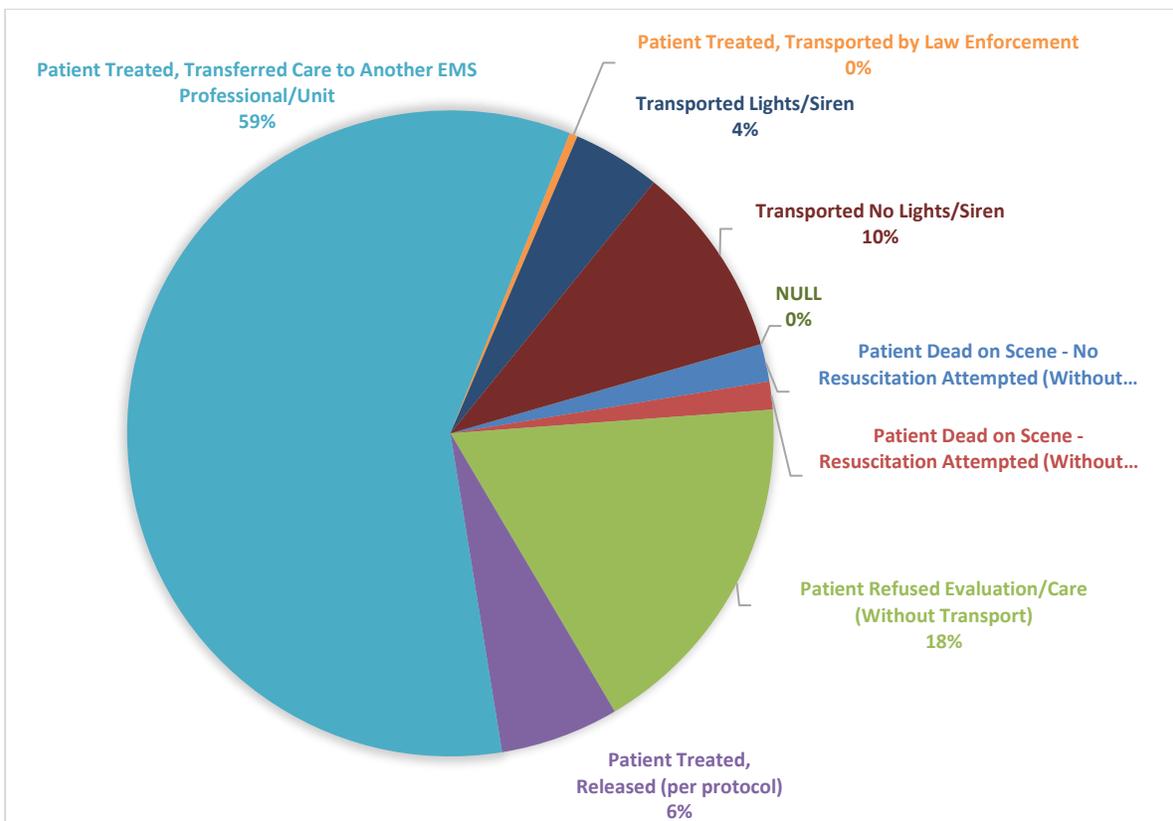
## Patients by Day of Week



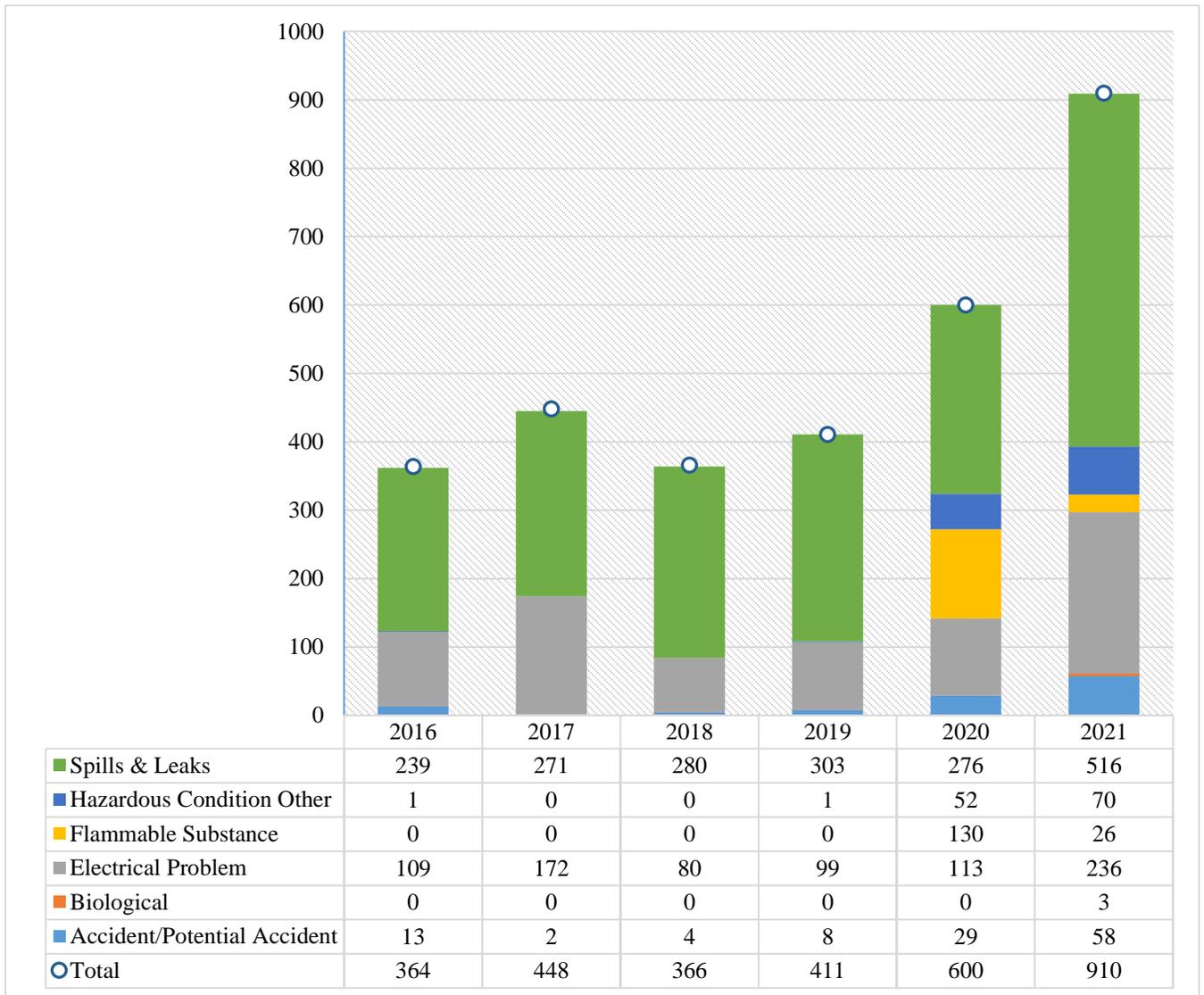
### Patients by Time of Day



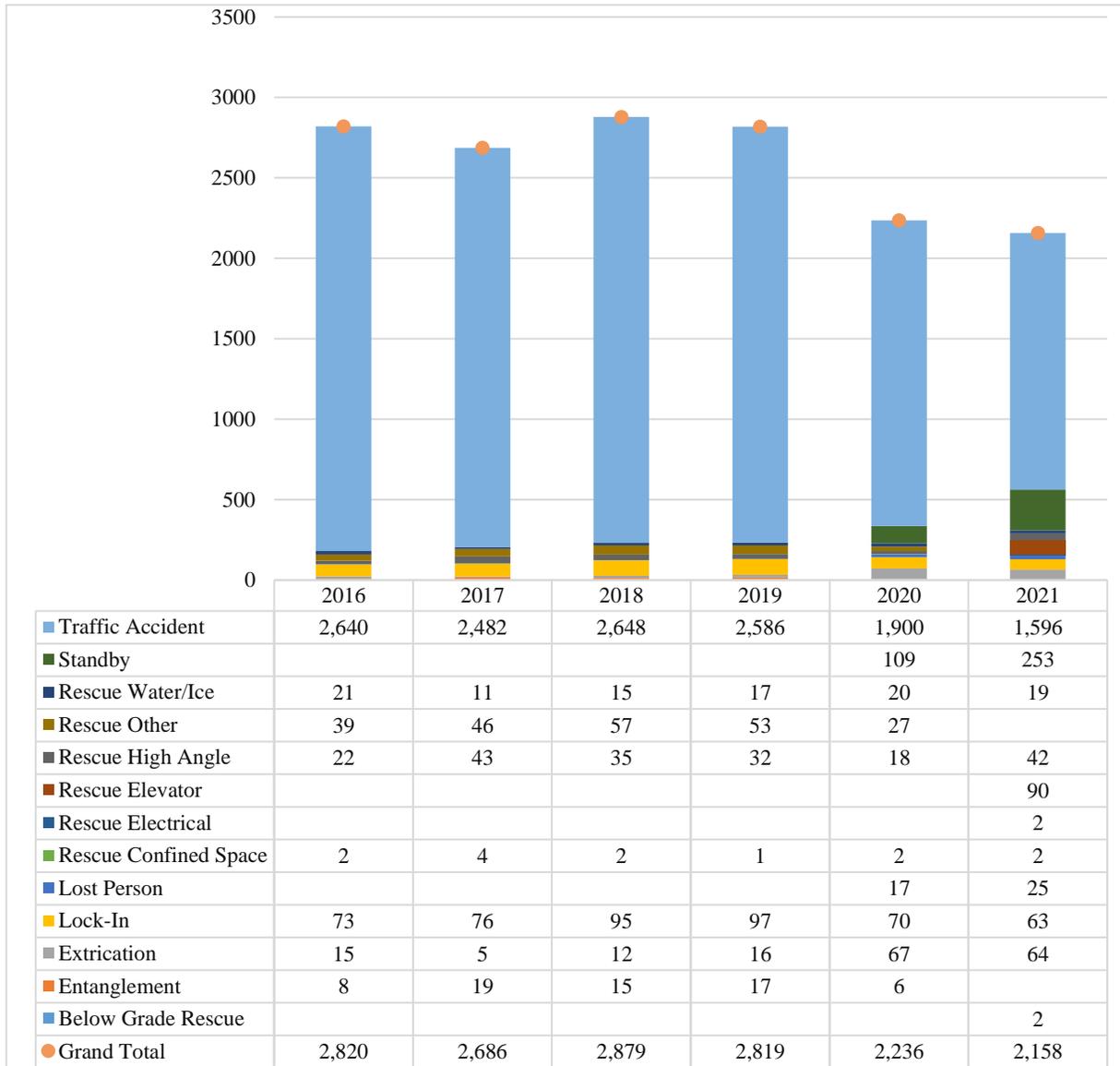
### Patients by Disposition



## Hazardous Materials Overview



## Technical Rescue Overview



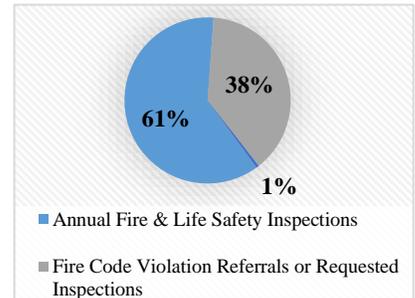
## Traffic Accidents

Traffic Accidents Top 10 Contributing Factors	2016	2017	2018	2019	2020	2021
Motor vehicle accident with injuries	2,348	2,354	2,233	2,013	1,380	1,564
Motor vehicle accident with no injuries.	2,640	2,482	2,648	2,586	1,900	1,596
Motor vehicle/pedestrian accident (MV Ped)					49	124
Vehicle accident, general cleanup					14	22
<b>Total</b>	<b>4,988</b>	<b>4,836</b>	<b>4,881</b>	<b>4,599</b>	<b>3,343</b>	<b>3,306</b>

## Division of the Fire Marshal Overview

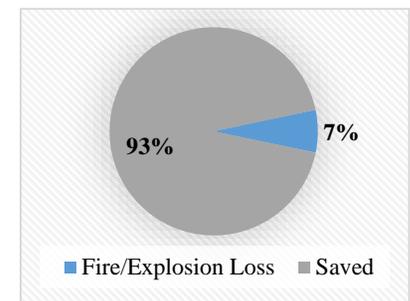
### Inspections

Annual Fire & Life Safety	2,670
Fire Code Violation Referrals or Requested	1,670
Temporary Use Permits	25
<b>Total Inspections</b>	<b>4,365</b>



### Investigations

Total Fires Investigations	140
Total Mutual Aid Investigations	4
Fire/Explosion Loss	\$9,828,271
Saved	\$138,685,064
Fire Fatalities	0



## Community Education and Outreach

### Programs

BusinessLink	1,534
CampusLink	145
CARELink	916
NeighborLink	425
SchoolLink	365
FireFactor 6th Grade	3,792
SafetyFactor Kindergarten	913
SafetyFactor 2nd Grade	522
Other Fire Safety Presentations	1,731
Youth Misuse of Fire Referrals	59
<b>Total People Reached</b>	<b>10,402</b>

## Technical Services

<b>Development Plan Reviews</b>	<b>626</b>
<b>Hazardous Materials Plan Reviews</b>	<b>438</b>
<b>Other Reviews (Permits)</b>	<b>105</b>
<b>Inspections (ESO Only)</b>	<b>1,203</b>

## New Construction

<b>New Construction Plans Reviewed</b>	<b>6,259</b>
<b>New Construction Inspections</b>	<b>5,137</b>

## Wildfire Mitigation

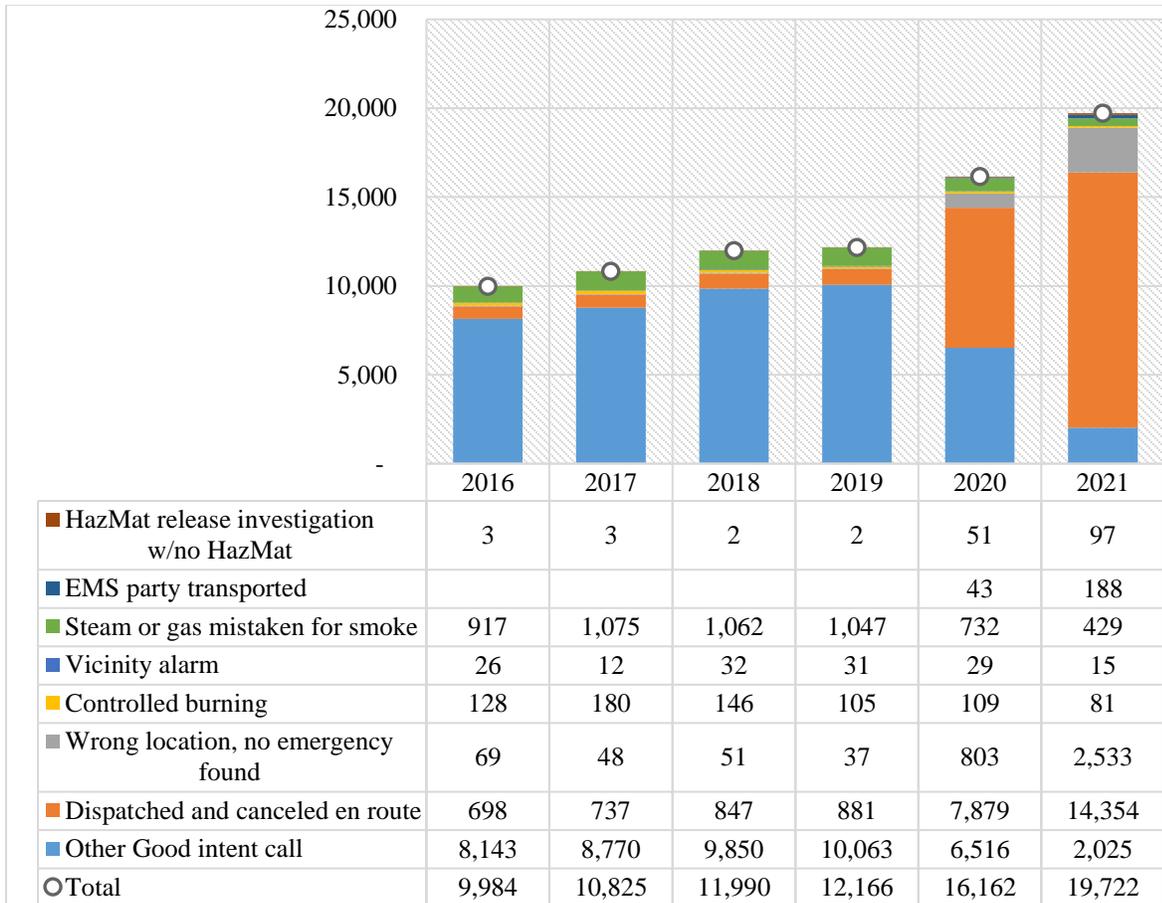
<b>Onsite</b>	<b>455.0</b>
<b>Wildfire Risk Assessments</b>	<b>6,355.0</b>
<b>Chipping Homes Serviced</b>	<b>4,140.0</b>
<b>Tons of Material Removed</b>	<b>434,916.0</b>
<b>Total Acres Treated</b>	<b>2,039.4</b>

## Mutual Aid

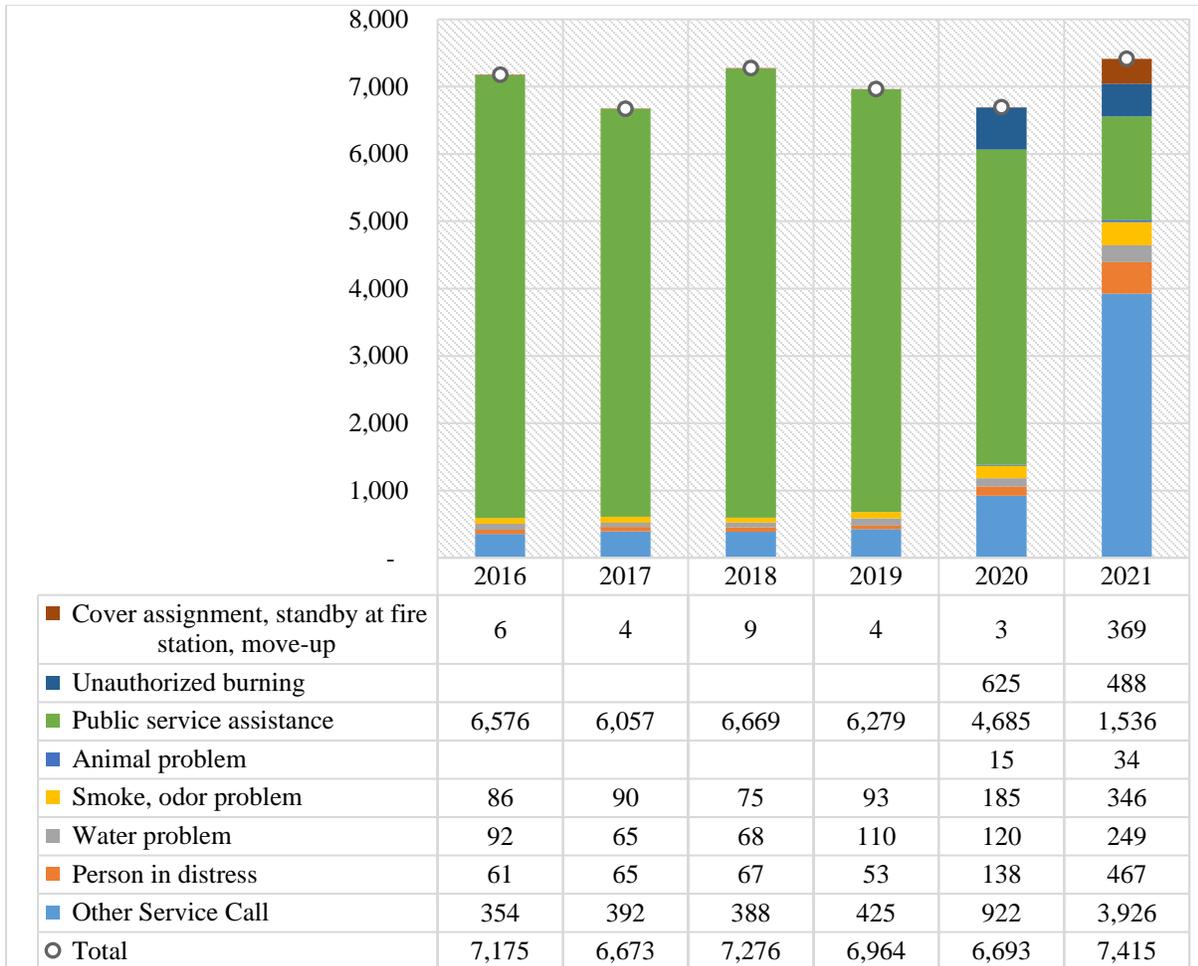
<b>Mutual Aid Summary</b>	<b>2021</b>
<b>ESO: Automatic aid received</b>	10
Agency Not Identified	10
<b>ESO: Mutual aid received</b>	9
Agency Not Identified	9

<b>Mutual Aid Detail</b>	<b>2021</b>
<b>ESO: Automatic aid given</b>	<b>51</b>
Agency Not Identified	3
Black Forest Fire Rescue Protection District	1
Broadmoor Fire Protection District	1
Cimarron Hills Fire Protection District	
Colorado Centre Metro District	5
Colorado State Parks	1
CSPD	27
El Paso County Search and Rescue	
EPSO	11
Falcon Fire Protection District	1
Peterson Air Force Base Fire Department	
Pikes Peak Regional OEM	
Southwest Highway 115 Fire Protection District	
United States Air Force Academy Fire Department	1
<b>ESO: Automatic aid given</b>	<b>15</b>
Agency Not Identified	2
Black Forest Fire Rescue Protection District	
Broadmoor Fire Protection District	
Cimarron Hills Fire Protection District	1
Colorado Centre Metro District	
CSPD	2
El Paso County Search and Rescue	1
EPSO	3
Hanover Fire Department	1
Peterson Air Force Base Fire Department	1
Peyton Fire Protection District	1
Pikes Peak Regional OEM	
Southwest Highway 115 Fire Protection District	
Tri-Lakes Monument Fire Protection District	1
United States Air Force Academy Fire Department	2
<b>ESO: Other aid given</b>	<b>6</b>
Agency Not Identified	6

**Good Intent**



## Service Calls



## ***Risk–Classification/Categories(2B.1, 2B.4, 2B.5, 2B.6, 2B.7, 2D.10, 3B.3)***

CSFD identifies, assesses, categorizes, and classifies the nature, impact, and exposure of various hazards within its response jurisdiction. Both the frequency and severity of exposure to these hazards are considered in the risk assessment. The department utilizes data tracked by the Pikes Peak Regional Office of Emergency Management (PPROEM) and Colorado Springs Utilities (CSU), as well as internal resources provided by the City of Colorado Springs Information Technology (IT) Department, the CSFD Division of the Fire Marshal (DFM), and the CSFD finance and information technology team to identify values within the community and their associated risk. The CSFD Target Hazards program that identifies structural fire risks in each fire station district was enhanced in 2021 to include station crews identifying hazards within their responding areas.

The Division of the Fire Marshal (DFM) maintains information on buildings containing fire protection and detection systems as identified through the plan review process. The presence of fire detection and protection systems is considered in determining the fire risk classification of individual structures. Infrastructure identified as essential to the functioning of the community are also assessed within the context of community risk. All developed areas of the city have infrastructure to include fixed water supply for firefighting efforts by means of a hydrant system owned and managed by Colorado Springs Utilities (CSU). The CSFD collaborates with CSU to study existing infrastructure and prioritize system enhancements to improve fire flow in identified areas of the city.

The CSFD regularly communicates with the mayor and a variety of groups within the community on the topic of community risk. The CSFD maintains a sworn fire captain's position within the PPROEM as a liaison. For other agencies in the area, the CSFD command staff and delegates meet regularly to discuss pertinent issues and concerns. For the past several years, a community risk assessment survey has been sent to stakeholders representing a broad spectrum of the community. Collectively this engagement is used to determine community needs regarding threats and risks.

## Fire Suppression Risk Assessment

For calendar year 2021, structure fires assessment indicates 72% were single family residential structures. This frequency indicates the occupancy represents the department's highest fire risk. During the review cycle (2017-2021), there were 11 civilian fire fatalities.

<b>SFIR Exposures by Property Use</b>	<b>2021</b>
Assembly	16
Educational	3
Health Care, Detention & Correction	6
Industrial, Utility, Defense, Agriculture, Mining	2
Manufacturing, Processing	2
Mercantile, Business	37
Mixed use, other	2
Outside or Special Property	63
Residential	422
Storage	21
Undetermined	11
<b>Total</b>	<b>585</b>

Many factors were considered when defining the types of fires that fall into the risk categories of low, moderate, high, and maximum, including:

- Hazards – Hazards pose or create a threat to life, health, property, or environment. The known presence of hazards may increase risk. This includes the potential for high-risk activities or human behavior.
- Mitigating factors – There are factors that can affect the probability and consequences of an incident. Positive factors include engineered systems, regular fire inspections, proper maintenance, proper storage, and awareness by occupants (fire drills, evacuation plans). Negative factors are the absence of any of these.
- Population – The time of day when structures are primarily occupied can influence an effective response, as well as whether the occupants are ambulatory.
- Potential loss – Loss can include the value of the structure and contents damaged or destroyed (direct loss), as well as loss of revenue, employment, historical significance, infrastructure, or government continuity (indirect loss).
- Occupancy type – Certain occupancy classes are inherently high risk. Considering the other factors above, the CSFD placed occupancy classes in each risk category.

- Response Capabilities – The CSFD recognizes three levels of response proficiency: awareness, operations, and technician level. In general, all responders are trained to the awareness level response, engine companies are trained and equipped for operations and response, and specialty units (i.e., Heavy Rescue) are trained and equipped for technician level response.

<b>Category</b>	<b>Classification: Fire</b>
Low	Car fires, dumpster fires, small outside structure fires and other small fires that do not endanger occupied structures, schools (K-12), sprinklered high-rise Occupancy classes: A-5, B (sprinklered), E, H-4, U
Moderate	Sprinklered small to medium commercial occupancies, sprinklered multi-family residential, sprinklered single family residential, sprinklered business and assembly, large business Occupancy classes: A-4, I-3, I-4, F-2, R-2 (sprinklered), R-4, S-2, M (sprinklered)
High	Assisted living facilities, large industrial/manufacturing, non-sprinklered single family residential, non-sprinklered assembly, large commercial/big box, non-sprinklered small/medium commercial Occupancy classes: A-1, A-3, B (non-sprinklered), F-1, H-1, H-2, H-3, H-5, I-1, I-2, M (non-sprinklered), S-1
Maximum	Non-sprinklered multi-family residential, non-sprinklered high-rise, non-sprinklered assembly Occupancy classes: A-2, R-1, R-2 (non-sprinklered)

*\*International Fire Code Occupancy classes*

A-1, A-2, A-3, A-4, A-5	Assembly
B	Business
E	Educational
F-1, F-2	Factory and Industrial
H-1, H-2, H-3, H-4, H-5	High Hazard
I-1, I-2, I-3, I-4	Institutional
M	Mercantile
R-1, R-2, R-3, R-4	Residential
S-1, S-2	Storage

## Emergency Medical Services (EMS) Risk Assessment

The risk assessment for EMS involved a historical review of incidents, as well as the critical nature of the primary assessment and the potential effect on the patient.

<b>Category</b>	<b>Classification: EMS</b>
Low	Injured or ill patient without airway, breathing, circulatory problems and do not meet any additional risk criteria
Moderate	ST-elevated myocardial infarction (STEMI), severe respiratory distress, cerebrovascular accident, traumatic brain injury, time sensitive issues, and any patient meeting trauma center or other specialized medical facility criteria. ALS required.
High	High mechanism of injury (rollover TA, car vs. pedestrian, motorcyclist, etc.), and drowning
Maximum	Multi-patient incident with multiple trauma patients, pandemic events

## Hazardous Materials Risk Assessment

The risk assessment for hazardous materials involved a historical review of incidents, as well as probability and consequence.

<b>Category</b>	<b>Classification: Hazmat</b>
Low	Residential CO alarms, small fuel spill containments, unknown hazmat investigations. Entry into a toxic environment not required. Specialized hazmat equipment and technician level knowledge/skills not required.
Moderate	Larger flammable liquid spills, natural gas leaks, unknown substance spill. Air monitoring and possible other specialized hazmat equipment required. Operations/Technician level knowledge/skills required.
High	Large hazardous materials spills or releases. Technician level entry required.
Maximum	Large uncontained quantities of hazardous materials affecting a large spatial area. Critical tasks exceed department's resources to mitigate. Includes weapons of mass destruction (WMD).

## Technical Rescue Risk Assessment

The risk assessment for technical rescue involved a historical review of incidents, as well as probability and consequence. Technical rescue is broken down into six different classifications, as the risks for each are different.

<b>Category</b>	<b>Classification: Extrication</b>
Low	Non-technical extrications such as vehicle lockouts with occupants inside (child or pet).
Moderate	Extrications requiring hand tools but not requiring any specialized rescue tools or training beyond the capabilities of a standard engine company.
High	Extrications requiring powered rescue tools but not requiring specialized rescue tools or training beyond the capabilities of a truck company.
Maximum	Involves complex extrication tasks and/or potential multiple extrications, rail, aircraft, large truck, heavy equipment, etc. Requires specialized skills and extrication equipment carried on the Heavy Rescue Unit.

<b>Category</b>	<b>Classification: Low/High Angle Rescue</b>
Low	Low angle rescue without any medical needs, victim is accessible by foot, and does not require the use of ropes. Generally, within a quarter to half mile from a road or trail head.
Moderate	Low angle rescue that could involve BLS medical care, victim is accessible by foot but requires a single rope system for extrication, but not requiring any tools or training beyond the capabilities of a truck company. Generally, within a quarter to half mile from a road or trail head.
High	Low to high angle rescue that could involve ALS medical care, victim is not accessible without the use of ropes. The environment requires a main and belay rope system for extrication but does not require tools or training beyond the capabilities of a truck company.
Maximum	High angle rescue that could involve ALS medical care, victim is not accessible without the use of ropes. The environment requires a main and belay rope system for extrication and the victim is at an excessive height or distance requiring specialty rescue equipment, or possible nighttime operations.

<b>Category</b>	<b>Classification: Water Rescue</b>
Low	Non-technical rescues such as standing water or shallow slow-moving water in natural historic waterways that is not-rising.
Moderate	Rising water that exceeds normal flows but does not exceed the ability of a truck company to perform a shallow water crossing.
High	Rising water with velocity that creates sufficient hydraulic force to exceed the abilities to perform shallow water crossings. The environment allows the victim to be reached with the use of aerial ladder.
Maximum	Swift moving and/or rising water with dynamic flow characteristics that require specialized equipment and technician level knowledge/skills.
Continued	

<b>Category</b>	<b>Classification: Trench Rescue</b>
Low	Shallow trench less than 18 inches deep, no potential for further collapse or need for shoring.
Moderate	Straight trench less than 4 feet deep, additional collapse potential does not threaten to bury victim or rescuer. May require shoring but does not exceed the training or abilities of a truck company.
High	Intersecting trench that is between 4 to 20 feet deep. Additional collapse will bury victim or rescuer. Requires shoring and specialized equipment and technician level knowledge/skills.
Maximum	Any trench deeper than 20 feet. Collapse will bury victim or rescuer. Requires engineered shoring and/or specialized equipment.

<b>Category</b>	<b>Classification: Confined Space</b>
Low	Non-technical rescues such as elevator rescues.
Moderate	Space is configured so that there is no entanglement hazard, access opening is large enough for the rescuer to pass through with room to spare when PPE is worn as recommended by the manufacturer, space can accommodate two or more rescuers in addition to the victim and does not require any tools or training beyond the capabilities of a truck company.
High	Space is configured so that there is no entanglement hazard, access opening is large enough for the rescuer to pass through with room to spare when PPE is worn as recommended by the manufacturer, space may only accommodate one rescuer in addition to the victim, and specialized equipment may be required to monitor or control hazards.
Maximum	Space presents entanglement hazards, the access opening is restrictive, the victim cannot be seen from the access point, and specialized equipment and technician level knowledge/skills are required.

<b>Category</b>	<b>Classification: Structural Collapse</b>
Low	Vehicle into a building without affecting any structural members.
Moderate	Building with damage that has affected structural members but has not caused any localized collapse. Low possibility of collapse, will require spot shores to stabilize, but does not exceed the training or abilities of a truck company.
High	Building with localized collapse, structural members are involved. High possibility of secondary collapse. Will require specialized equipment and technician level knowledge/skills.
Maximum	Building or multiple buildings with partial or complete collapse. High possibility of secondary collapse. Will require specialized equipment and technician level knowledge/skills.

## **Wildland Fire Risk Assessment**

Risk categories for wildland fires are determined by the fire danger rating at the time of the incident and the pre-determined wildfire risk for the incident address. Wildland fire resource assignments are based on the Fire Danger Rating and incident location. The wildland fire risk for all areas of the city is assigned to one of the following three categories in CAD:

- Urban: Designation for areas of the city presenting little danger for wildland/grass fires. These areas are usually small parks, medians, back yards, etc. They are areas that may be handled by a single type 1 engine or a single type 1 engine and a single type 6 engine. The areas are generally bordered by streets, parking lots or other man-made obstacles that provide a barrier to fire spread.
- Fire Danger Area (FDA): These areas have an increased risk of wildland/grass fire ignition and spread. Many of the areas along the eastern border of the city fall under the FDA and have a higher threat of grass fire ignition and rapid spread requiring an increased resource response.
- Wildland Urban Interface: Addresses in the WUI can experience rapid fire growth and significant property damage and require the greatest number of resources.

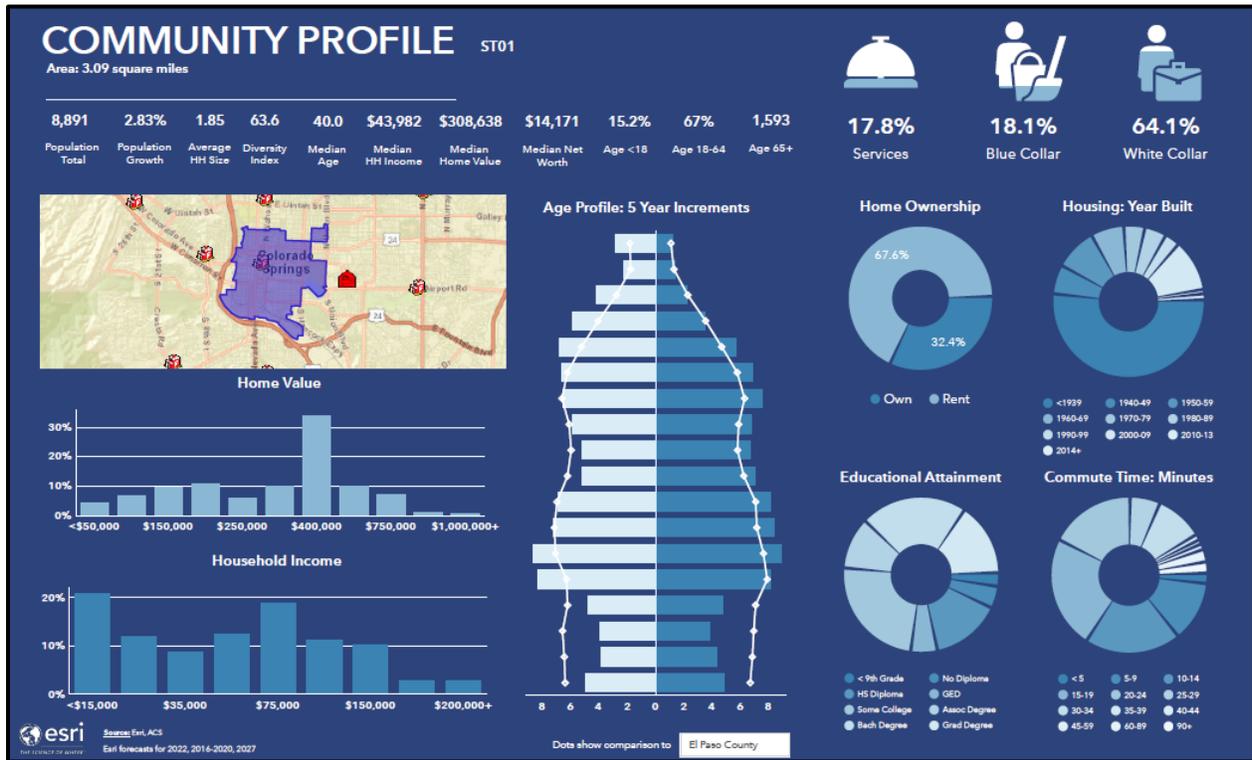
## **Geographic Planning Zone Risk Assessment**

The geographic planning zones primarily used by the CSFD are the 23 fire station districts. The City of Colorado Springs has a wide variety of natural features with varying elevations and topography that result in different types of risk. Each fire station district also has its own unique risks regarding man-made and human-caused factors. The following is an overview of each fire station district showing the service demand for each of the major risk classifications, as well as the unique risk factors in each district. All fire station captains completed a simple survey to develop this information. Identified risks are based on based on historical experience/knowledge, probability, and consequence.

## Station Responses – past 5 years

Station	2016	2017	2018	2019	2020	2021	Prior Year Growth	Avg Growth
ST01	7,164	7,274	7,540	7,069	6,398	6,741	5.1%	-0.6%
ST02	2,656	2,846	2,647	2,507	2,400	2,389	-0.5%	-2.5%
ST03	2,789	2,930	2,752	2,834	2,700	2,942	8.2%	-0.1%
ST04	6,465	6,308	6,112	6,448	5,920	6,250	5.3%	0.5%
ST05	2,899	2,954	2,935	2,593	2,626	2,995	12.3%	-0.1%
ST06	3,031	3,277	3,252	3,086	2,837	3,217	11.8%	0.8%
ST07	6,468	6,217	6,585	6,597	4,999	4,578	-9.2%	-5.8%
ST08	7,735	7,366	7,364	7,389	7,070	7,038	-0.5%	-1.0%
ST09	5,276	5,192	5,046	4,976	4,666	4,943	5.6%	0.4%
ST10	5,136	5,367	5,453	5,236	5,116	5,492	6.8%	3.0%
ST11	4,795	4,756	4,925	4,754	3,825	3,752	-1.9%	-2.4%
ST12	1,481	1,403	1,429	1,431	1,339	1,473	9.1%	-1.6%
ST13	1,986	1,865	1,965	1,853	1,843	1,753	-5.1%	-2.5%
ST14	2,342	2,215	2,313	2,173	2,235	2,661	16.0%	3.4%
ST15	1,518	1,603	1,589	1,677	1,743	1,953	10.8%	5.3%
ST16	691	813	911	896	909	973	6.6%	5.9%
ST17	3,761	3,769	3,690	3,787	3,860	3,896	0.9%	1.6%
ST18	883	977	960	843	796	778	-2.3%	-2.6%
ST19	2,203	2,611	2,625	2,779	2,567	2,694	4.7%	4.4%
ST20	1,791	1,856	1,828	1,863	1,922	1,918	-0.2%	2.4%
ST21	1,394	1,439	1,613	1,757	1,877	2,294	18.2%	12.3%
ST22	684	882	920	1,035	926	1,241	25.4%	25.4%
ST23	3,715	3,747	3,755	3,781	4,016	4,163	3.5%	3.4%
<b>Total</b>	<b>76,863</b>	<b>77,667</b>	<b>78,209</b>	<b>77,364</b>	<b>72,590</b>	<b>76,134</b>	<b>4.7%</b>	<b>4.5%</b>

## Fire Station 1 – 29 S. Weber Street



### General Description

Fire Station 1 is located in and serves the downtown core. It has the highest concentration of high-rise structures, which includes commercial buildings, residential buildings, and hotels. It is one of the oldest areas of the city with many historic buildings. The most visible historic building, listed on the National Register of Historic Places, is the Colorado Springs Pioneers Museum. Built in 1903, it was the El Paso County Courthouse until 1973 and turned into the museum in 1979. It houses more than 60,000 historic and cultural artifacts.

This area has the highest homeless population and has several homeless shelters/facilities. One of the city’s largest healthcare facilities, university of Colorado Health - Memorial Hospital Central, is located in the district and is also one of the city’s largest employers. The hospital has 413 beds, is a Level 1 Trauma Center, and is a primary stroke center. The primary rail lines and Monument Creek travel in a north-south direction along the west edge of the district.

Primary facilities for city, county, state, and federal government buildings are located in this area, including City Hall, City Administration Building, Colorado Springs Municipal Courthouse, Colorado Springs Police Operations Center (headquarters), Martin Drake Power Plant, El Paso County Administration Building, El Paso County Sheriff's Office and Detention Center, El Paso County and Colorado 4th Judicial Branch Courthouse, U.S. Justice Department, U.S. District Court, and the Federal Bureau of Investigations.

### **Highest Risks**

Martin Drake Power Plant, 700 S. Conejos Street – The potential for explosion and loss of infrastructure is high with this facility. It is one of three Colorado Springs Utilities – owned facilities that generate electricity for the city of Colorado Springs. Its primary source of fuel is compressed natural gas. The facility has established, and practiced evacuation plans for its employees, but the risk is to firefighters entering the structure, as well as to the surrounding area should an explosion occur. There was a major fire in 2014 caused by oil coming in contact with extremely hot steam pipes during a maintenance period. The situation was made more volatile by the presence of coal dust. Evacuations were made in a five-block radius and more than 22,000 customers lost power. Another fire in 2016 was caused directly by the ignition of coal dust. The plant stopped burning coal in September 2021; decommissioning is expected to be complete no later than December 2022. For further facility information refer to Station 3's risk assessment.

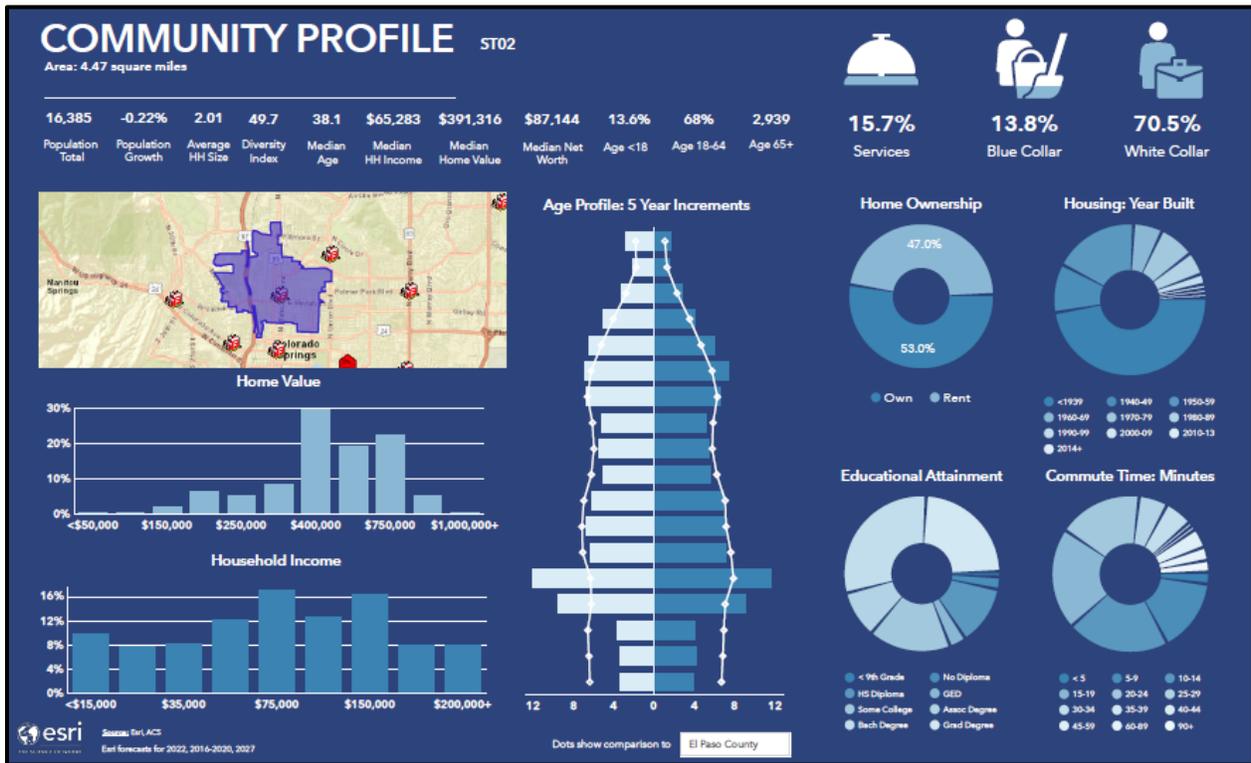
Acacia Park Apartments, 104 E. Platte Avenue – The potential for fire and loss of life is high with this structure. This is a four-story non-sprinklered residential complex that houses elderly and immobile occupants. This address has a high number of emergency responses, most often false alarms and “food on the stove,” situations, which has conditioned the occupants to not evacuate.

High Rise Fires – Although high rise fires are low frequency, they are potentially high risk. There are several aging structures in this district, some fully sprinklered, some partially sprinklered, and some with minimal fire protection systems. Some house high value commercial businesses and others house the elderly. Crews from Fire Station 1 would be responsible for the quick implementation of initial tactics for effective fire suppression.

Railways – The primary railways travel in a north-south direction along the west edge of the downtown area. These include freight transport by the Union Pacific and BNSF railways, but no passenger trains. This is a low frequency, high risk exposure.

Terrorism – The large number of city, county, state, and federal government facilities in the downtown area are a potential target of terrorism. Likewise, there are several large outdoor gatherings that take place each year that can gather up to 30,000 people. This would provide a target-rich environment for an active shooter or vehicular attacks.

## Fire Station 2 – 314 E. San Miguel Street



### General Description

Fire Station 2 serves the area north of downtown Colorado Springs, and includes a diverse population to include college students, an affluent community, and a substantial homeless population. The district includes one of the city’s largest healthcare facilities, Penrose Main Hospital, The Colorado College with an average student population of 2,000 and facilities spread over 90 acres; and the Colorado Springs Fine Arts Center.

Located on the west side of the district is Monument Valley Park, which is listed on the National Register of Historic Places. The park is comprised of two miles of recreational areas with Monument Creek, one of the city’s two major waterways, flowing in a north-south direction through the length of the park. Interstate 25 travels through the district, carrying over 100,000 vehicles through the city every day. Both areas contain a large homeless population.

## **Highest Risks**

Penrose Main Hospital, 2222 N. Nevada Avenue – This is one of the main hospitals in the city, has 364 beds and is certified as both a Level 2 Trauma Center and a primary stroke center. There is a 12-floor high-rise located on the west side of its campus. Non-ambulatory patients will increase the demand on emergency responders. An additional risk to note is the presence and use of a rooftop helipad.

The Colorado College, 14 E. Cache La Poudre (multiple addresses) – The campus is composed of roughly 100 different structures including residential, educational, recreational, and service buildings. While the school is active in campus fire safety and maintains their own EMS staff, the inherent nature of young college students is a high risk itself. Historically, there have been numerous emergency responses for medical calls, service calls, and automatic fire alarms. Campus configuration also requires students to cross busy roadways on foot throughout the day. In 2021, Ed Robson arena was built. This is a 120,000 square feet multipurpose sports arena that is primarily used for Colorado College’s hockey team. The arena has the capacity for 3,400 people and houses its own parking structure.

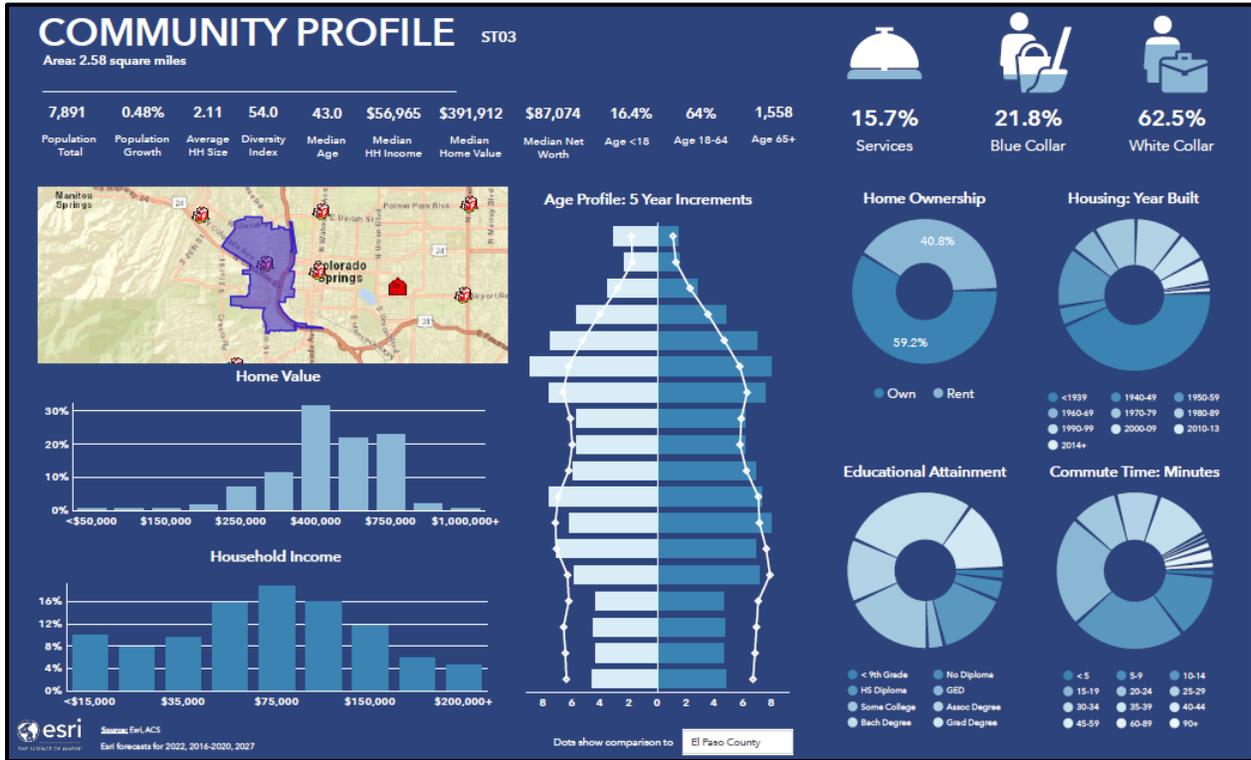
Wildland Urban Interface - There is a high potential for wildfire in the western portion of the district. Sondermann Park and Mesa Valley combine to make up approximately 400 acres of open space. Sondermann Park has 97 acres of natural preserve that offers hiking, biking, and nature watching. Residential structures border the western, eastern, and southern portions of Sondermann Park. Many residential streets in this area start and stop due to the hillsides, complicating evacuation, and response. Hydrant spacing/distances in the hillside area vary adding to water supply challenges.

Homeless Population - Outside fires and medical calls for the homeless population along Monument Creek, Mesa Valley, Sondermann Park, and Interstate 25 continues to be a frequent occurrence. Large homeless camps, up to 100 people or more living along the creek and in open spaces is not uncommon. Unattended cooking or warming fires that escape their makeshift fire pits are becoming more frequent which threatens lives and property. Within these encampments emergency responders also encounter hazardous materials and/or biological hazards.

Interstate 25 - This is a major north/south corridor with a high volume of vehicle traffic traveling at high speeds. This includes both passenger and commercial vehicles, some of which transport nuclear waste and other hazardous materials.

Elderly Care Facilities - There are four elderly care facilities in the district. In the event of fire, rescue efforts will be hindered by the number of patients that are non-ambulatory or who are suffering from cognitive disease processes. These facilities have a limited number of onsite staff who could assist with patient evacuation during a fire or other emergency.

Fire Station 3 – 922 W. Colorado Avenue



**General Description**

Fire Station 3 serves one of the oldest areas of the city and contains structures that were built in the late 1800’s. It is largely residential and consists of many single-family dwellings. Some of the complications of this area are homes that have been converted to non-residential occupancies, two group homes for the disabled, bed and breakfast inns, residences with half addresses, flag lots, balloon frame construction, limited access, water supply issues and narrow roads and alleys. It serves a diverse population from all socioeconomic backgrounds to include a large population of people experiencing homelessness. Many tend to congregate under bridges and on the banks of Fountain Creek, which is prone to flooding during heavy rain.

There are several large employment centers supporting more than 100 employees and attracting customers. These include Motor City (a concentration of vehicle dealerships), Center for Creative Leadership, Wal-Mart, King Soopers, Penrose Event Center (an outdoor arena), and the United States Olympic Committee facility.

Several critical infrastructure facilities and intersections are also located in the response area including the Martin Drake Power Plant, Colorado Springs Police Department's Gold Hill substation, Zeb Pike Youth Detention Center, I-25, Cimarron at Highway 24, I-25 at Uintah, railroad lines, a water storage tank on Mesa Open Space, the City's Traffic Operations Center, the Roundhouse retail center, El Paso County Extension Offices, and Pikes Peak Area Council of Governments.

### **Highest Risks**

Martin Drake Power Plant, 700 Conejos Street - This was a coal fired, electric generating plant that is now being transitioned to a natural gas-powered electric plant. The greatest risk, now that the coal has been removed, is construction accidents and any explosion from a natural gas leak. The plant is also very close to the downtown area of Colorado Springs. The explosion risk to nearby homes and Interstate 25 is high. Decommissioning is expected to be complete no later than December 2022.

Cedarwood Healthcare, 924 W Kiowa - This facility has many bed ridden, rehabilitation and long-term patients. Many of these patients are unable to exit the facility on their own. The facility is also built in such a way that access can be a challenge. Mass evacuation would be problematic.

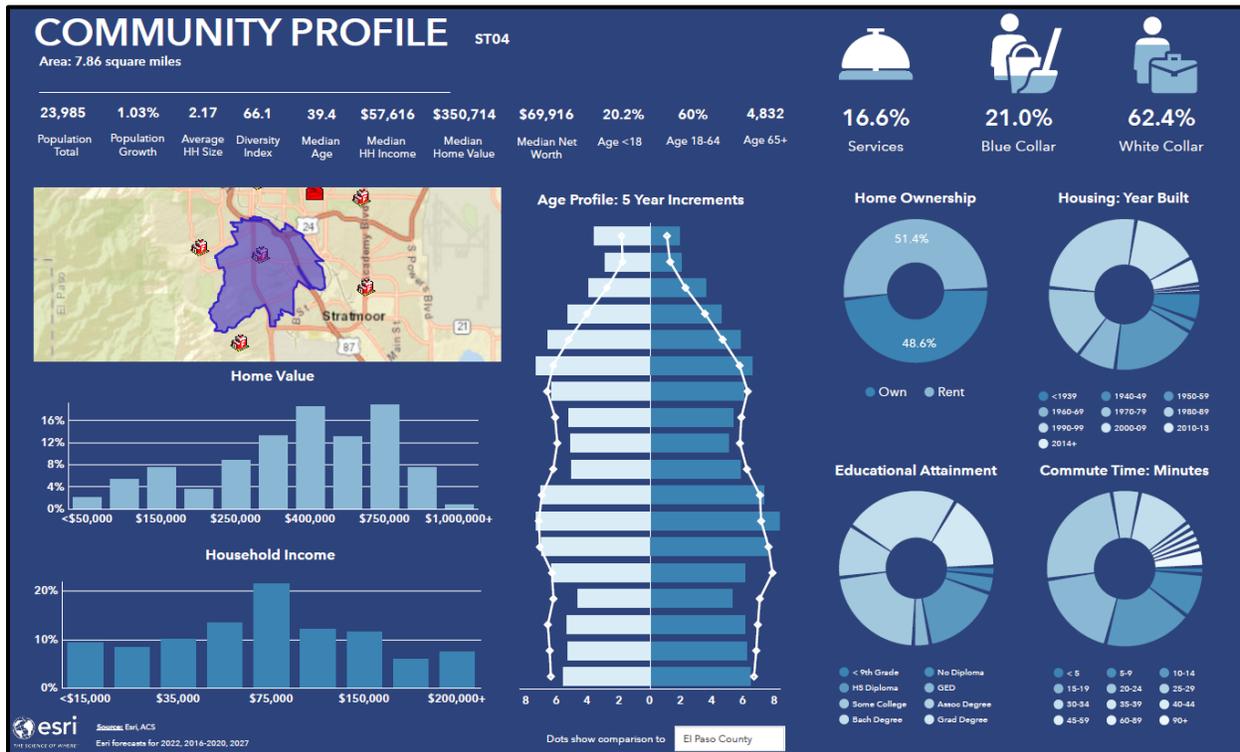
Air Gas, 306 S Chestnut - With the recent upgrade to Interstate 25, this business now resides immediately adjacent to the highway. Any kind of gas release, explosion or fire will create the immediate need to shut down all of the interstate. Interstate 25 is a major arterial roadway in the state and a massive, unplanned shutdown would create immediate congestion with high potential for several traffic accidents, injuries and create a substantial economic hardship.

Bear Creek Park, Promontory Pointe Open Space, Mesa Open Space - These open space/park areas are heavily used by humans. They are also areas that have experienced a growing population of homeless who are starting campfires. These areas are also located within neighborhoods and/or are surrounded by housing. In the case of Mesa Open Space, it is not easily reached by fire apparatus and abuts to the backyards of many homes. The primary risks

are fire, but the area also pose a risk for injury rescues that may require a lot of CSFD resources to affect a successful rescue.

Interstate 25 and Railroads - Interstate 25 and the railroad travels in a north-south direction and both carry hazardous manifests through the city. Waste Isolation Pilot Plant (WIPP) shipments travel I-25 via trucks. The rail corridor through Colorado Springs also carries a variety of other products every day. Both transportation mediums work their way directly through the center of the city. The risks include human life, business loss, economic hardship, and the shutdown of primary transportation arterials within the state of Colorado.

## Fire Station 4 – 2280 Southgate Road



### General Description

Fire Station 4 has a diverse response area which includes populations from all socioeconomic backgrounds to include a large population of people experiencing homelessness, and structures of all building construction types, ranging from residential to commercial occupancies. There are many hotels, some of which are three stories or higher. There are also non-sprinklered high-rise elderly living facilities that pose a high life hazard.

The district includes a major high-tech company, Microchip, that employs hundreds of people; a mid-size event center, the Broadmoor World Arena, with a capacity of 8,000 people; and the Myron Stratton Home built in 1913. The Myron Stratton Home has historical significance to the City of Colorado Springs and provides homes for independent elderly living, assisted living, people experiencing poverty, and women and children needing a safe place due to domestic violence issues.

The geography consists of a significant wildland urban interface (WUI) area. Multiple major roads with overpasses and an electrical substation create infrastructure concerns. The confluence of Fountain and Monument Creeks to the north creates the potential for swift water incidents during the rainy season.

### **Highest Risks**

Microchip, 1150 E. Cheyenne Mountain Boulevard – This is a high-tech manufacturing facility that uses hazardous materials. It employs between 1,200 and 1,400 people, consists of three large buildings and several smaller ones, and is located on 35 acres. An incident involving their hazardous materials storage has the potential for a mass casualty incident.

Broadmoor World Arena, 3185 Venetucci Boulevard - This is an 8,000 seat multi-purpose arena and entertainment venue. It is used for concerts, sporting events, and high school graduations. When at capacity, this poses a high-life hazard, such as in the case of an active shooter incident.

Lux Apartments, 107 W. Cheyenne Road – This is a non-sprinklered 7- story high rise facility where access and egress is problematic.

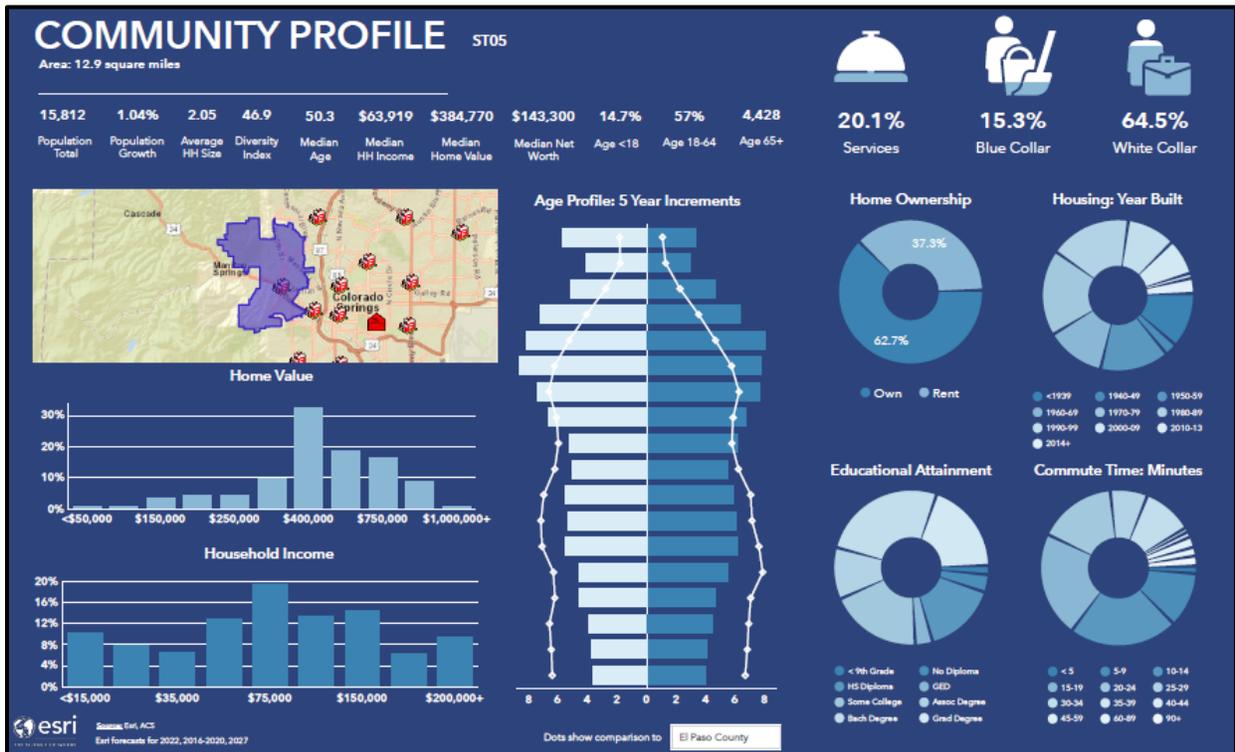
Wildland Urban Interface – There is a significant WUI aspect to this district and surrounding districts. The routes in and out of the WUI in SW Colorado Springs are smaller roads which will make evacuations and fire department operations difficult during a wildfire.

Major roadways and overpasses – Interstate 25, Highway 115, Highway 24 Martin Luther King Bypass, Lake Avenue to South Circle Drive, and South Nevada Avenue. These roadways are heavily traveled, and traffic accidents are common during all seasons. Incidents that happen on these thoroughfares have the potential to cause multi-car accidents especially during winter driving conditions.

The creeks and other bodies of water that traverse this district create swift water and ice rescue hazards. Both are low frequency, but high-risk events in their respective seasons.

Fire Hydrant Water Supply Concerns – The district has two areas of concern regarding water supply. Marland Road in the Broadmoor area contains large flag lots and has fire hydrants with low water pressure. Stratton Meadows’ fire hydrants spacing is greater than in other areas of town.

**Fire Station 5 – 2830 W. Colorado Avenue**



**General Description**

Fire Station 5 covers the west side of Colorado Springs. This station is one of two whose primary specialty is High-Angle Rescue. This area includes Old Colorado City, which is the oldest part of the city, predating the city of Colorado Springs and the original capital of the state of Colorado. Many structures in this area date back to the late 1800’s and early 1900’s. The main street through Old Colorado City sees a high volume of tourists during the summer months who are attracted to the many unique shops and restaurants. One of the city’s primary water treatment plants is in this district.

The population of this area is largely low to middle income and there is a significant homeless population that live along the banks of Fountain Creek. This waterway comes down from the Rampart mountain range and is prone to flooding during heavy rain. Additionally, Camp Creek runs from north to south through the district. The lower part of this waterway is contained in a concrete canal, but it is also prone to flooding during heavy rain and could cut off access to a large residential area to the west.

Garden of the Gods and Red Rock Canyon Open Space are significant tourist attractions in this district that combine to make over 2000 acres of city park property containing large red rock formations along with numerous hiking and biking trails. High angle rescues are common in the summer when park visitors scramble too high without proper gear and cannot get back down.

Cedar Heights is an affluent gated community of custom-built homes that lies in the foothills on the far west side of the district. Access is restricted to a single main point of entry and two other limited gates off Rampart Range Road, a steep and winding dirt road. The elevation ranges from 6,400 feet at the main gate up to 7,600 feet at the top, with several switchbacks in the main road requiring slower driving speeds and resulting in extended response times.

### **Highest Risks**

Station 5's older structures are in close proximity and congested street layout with limited off-street parking result in rapid exposure and apparatus access issues throughout the district. The water supply mains are also older and smaller giving us widely varied pressures at the hydrant. Below are some structures of particular concern:

Old Colorado City Surplus Building, 2732 W. Colorado Avenue – This is a large open floorplan undergoing remodel that has a bowstring truss roof and failing brick walls. It is not sprinklered and has the potential for structural collapse. It will contain an architecture firm office, a coffee shop, and art studios along with a gallery when the remodel is completed.

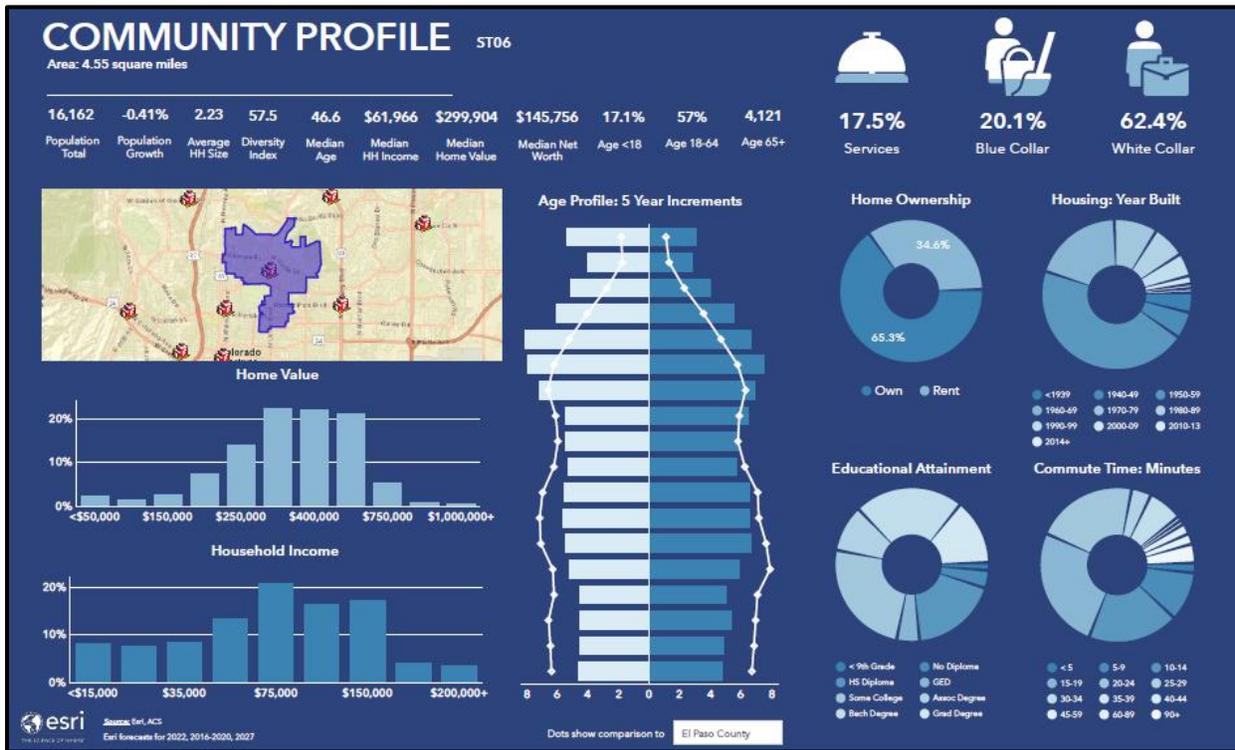
Goodwill Industries, 2307 W. Colorado Avenue – This is a large industrial storage facility where all donations are kept before going to area retail centers. There is a very high fire load with a wide variety of items. Although it is sprinklered, fire in this building has the potential to create extreme heat and smoke. This business employs many special-needs personnel.

Sundance Skilled Nursing, 2612 Cucharras Street – This is a two-story assisted living facility with a basement and 68 beds. Patients have limited or no mobility, and many have limited mental capacity. Staff on site is minimal and evacuation of patients would be problematic.

Sno-White Linen, 110 S. 25th Street – This is a commercial laundering facility that takes up almost an entire block with a narrow alley that traverses the middle of its building. It contains very large, electric commercial dryers and a very old natural gas boiler. The building construction is mixed era and also includes several additions. There are access/egress issues and limited fire protection systems. There is a significant risk for firefighter entrapment.

Colorado Springs Shrine Club, 6 S. 33rd Street – Originally built in 1948, this facility has undergone several additions since that time. It has steel bowstring trusses over the main gathering hall with masonry support walls. This is a very heavy roof with a high potential for collapse and entrapment under fire conditions. The lower-level windows also all have security bars.

## Fire Station 6 – 2430 N. Union Boulevard



### General Description

Fire Station 6 covers the central area of the city. It is a diverse district with a mix of residential and commercial occupancies. There are several elderly care facilities and a major center that includes a variety of healthcare facilities. There are several mobile home communities in this area, that have limited access and water supply challenges. The Birdsall Power Plant, a contingency power generation facility, lies in this district. The primary sports stadium for the city's largest school district is also in this district. There are also six schools in this district.

A portion of Palmer Park lies in this district, which is a regional park of 730 acres of open space. The park has a terrain of varying elevations, rocky bluffs, and dense vegetation that pose a significant wildfire threat in the middle of the city, with limited access. There are several residential streets that surround Palmer Park. This adds a significant WUI problem in the middle of the city.

Shooks Run Creek runs through the district and is prone to flooding during heavy rain. Three major city thoroughfares, Union Boulevard, Circle Drive and Fillmore Street, run through the district. There is a sizable population of homeless people in the area that live along and use the waterways and the Fillmore Street corridor as well as in the storm drain system. There have been several homeless campfires that with the right combination of conditions could have caused a devastating wildland fire.

### **Highest Risks**

Birdsall Power Plant, 213 Nichols Boulevard – There is the potential for a significant hazardous materials incident at this facility. Including a 2.4-million-gallon fuel tank. As a power generation facility, it may also be the target of a terrorist attack.

MacKenzie Place, 1605 Elm Creek View – This is a multi-phased senior care facility with many occupants having limited mobility. The building is sprinklered but has limited staff to assist with evacuation.

Heritage Park Senior Condominiums, 2450 Palmer Park Boulevard – This is a three-story 55+ independent living community. There are limited staff, and numerous residents with limited mobility. The building is sprinklered, but evacuations could be problematic.

Colonial Columns Nursing Home, 1340 E. Fillmore Street – This is a skilled nursing care facility for elderly patients, most of which have limited or no mobility. Limited staffing would cause evacuations to be an issue. There is also a hazardous material component with the storage of multiple oxygen tanks.

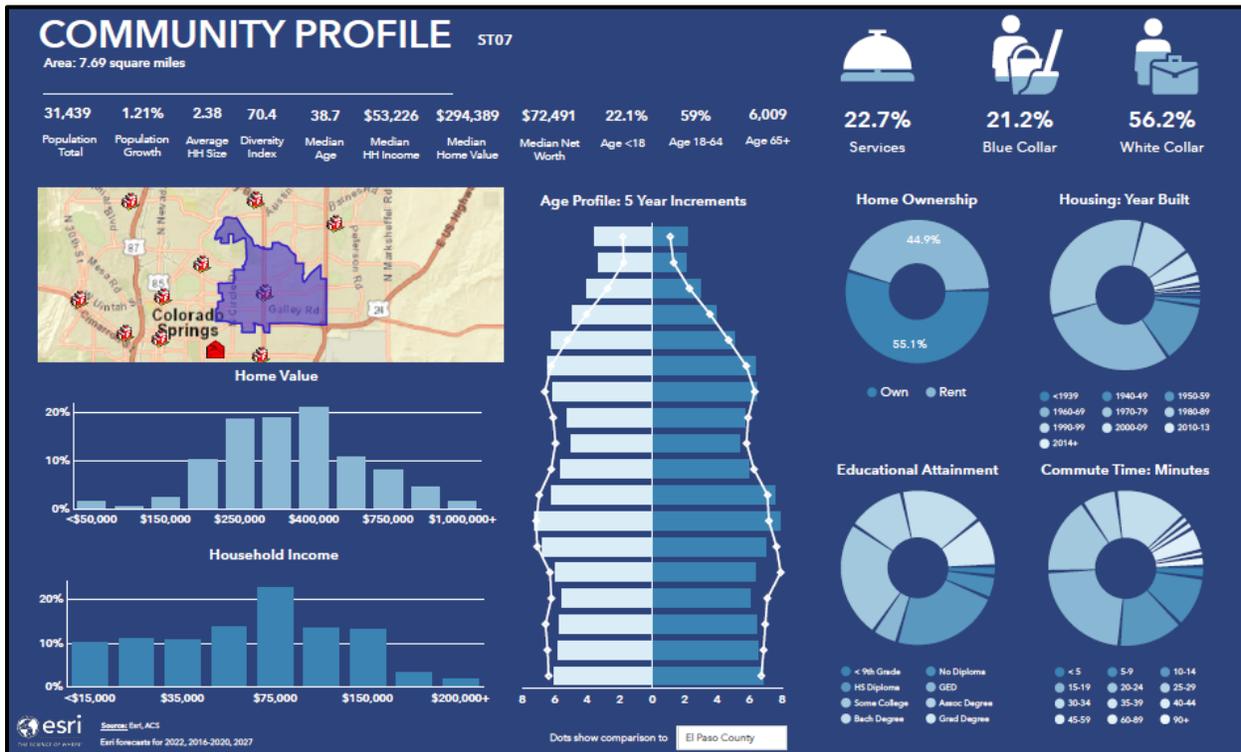
Multi-Family Residential Structures – There are approximately ten multi-family residential buildings in this district that are unprotected wood-frame construction, which represents a high-life hazard.

Liberty Dialysis, 1910 Lelaray Street This is one of two dialysis' facilities in the district that care for the needs of thousands of dialysis patients. If either facility were shut down for an extended period, it would have a catastrophic effect for their patients.

DaVita Dialysis, 2002 Lelaray Street This is the second dialysis' facility in the district that cares for the needs of thousands of dialysis patients. If either facility were shut down for an extended period, it could have a catastrophic effect for their patients.

Genesis Healthcare, 2719 N. Union Boulevard This is a large nursing facility offering post-hospital, short-term rehabilitation as well as long-term and respite care services. They also have a specialized transitional care unit for patients transitioning from hospital to home, and a Memory Support unit for residents with Alzheimer's or dementia. Due to the size of the complex and the limited mobility of the patients, evacuation could be problematic. The building is sprinklered; however, the building and the sprinkler system are aged.

## Fire Station 7 – 3901 Palmer Park Boulevard



### General Description

Fire Station 7 covers the central area of the city and lies directly on the busy Academy Boulevard corridor. It has a large population of low-income and non-English speaking residents. There are many multi-family dwellings and several senior care facilities. Located in this area is the Citadel Mall, as well as a Colorado Springs Utilities primary electric transfer substation.

Fire Station 7 responds to a large portion of Palmer Park, a regional park with 730 acres of open space. The park’s terrain is of varying elevations with rocky bluffs, and dense vegetation that pose a significant wildfire threat to the heart of the city. There are several major drainages that pass through this district and are prone to flooding during heavy rain. Aging stormwater systems in the area are often overwhelmed requiring multiple water rescues during severe weather events.

### Highest Risks

Palmer Park, 3650 Maizeland Road – This large park, located in the city center, is surrounded by residential and business properties, and major roadways. The southwest portion of the park is

flanked by large expensive homes and a boarding stable/therapeutic riding center. Roads through the park are narrow with blind corners, slowing emergency response vehicles and offering limited access should a wildfire occur.

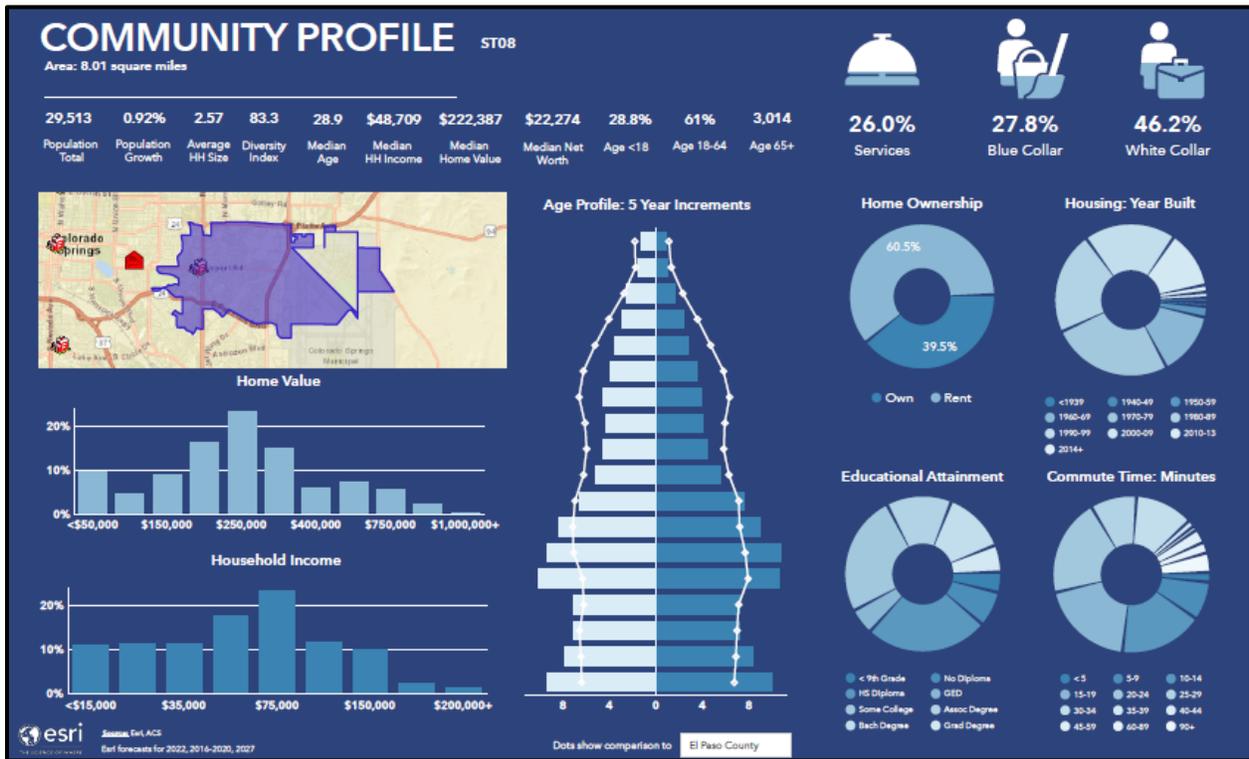
Citadel Mall, 750 Citadel Drive East – This indoor shopping mall is one of the busiest retail centers in the city, particularly during the holiday season. The large capacity has the potential for high life hazard in the case of fire or mass casualty incident (MCI.) In recent years many of the retail outlets have closed and been replaced by a wide variety of occupancies to include educational and community service organizations. Additionally, the Citadel’s northeast parking area has been used for carnival events during the summer months. The carnival atmosphere brings with it staff and crew that live “on site.” There is also potential for large fights and gun violence from area residents. Due to the additional congestion of people, parked vehicles, and concessions, apparatus access and egress is far from ideal.

United Parcel Services (UPS), 911 Emory Circle – This facility is a regional distribution center for the county. Any type of incident at this location would cause service disruption and negatively impact the city.

Winslow Court, 3920 E. San Miguel Street – This independent and assisted living facility has a significant number of memory care occupants. It has limited water supply for fire protection systems and stairwells are not sprinklered. Staffing is minimal, making evacuation problematic in case of emergency.

Citadel Terrace, 669 Citadel Drive East – This mid-rise retail and office structure that has limited access for emergency apparatus. With a variety of differing occupants, a substantial economic loss would ensue in the case of fire or another major emergency.

## Fire Station 8 – 3737 Airport Road



### General Description

Fire Station 8 is in the southeast portion of Colorado Springs. This district has over 100 multi-family structures, with the vast majority being wood frame construction and not sprinklered. Some have limited hydrants or difficult access to a water supply. There is one high-rise residential building in the district.

The United States Postal Service (USPS) general mail facility is in this district. The facility is a potential target for terrorism, and an incident at this structure would significantly impact all postal services in the city. There are a significant number of various-sized industrial occupancies ranging from auto body/automotive repair shops to manufacturing and hazardous material processing and chemical facilities.

### Highest Risks

Multiple center hallway apartment complexes – Many were built in the 1960s through the 1980s. Most are not sprinklered or equipped with a fire alarm system. Because of the design and style of

construction, a significant fire in these buildings could contribute to numerous trapped occupants and a large loss of life.

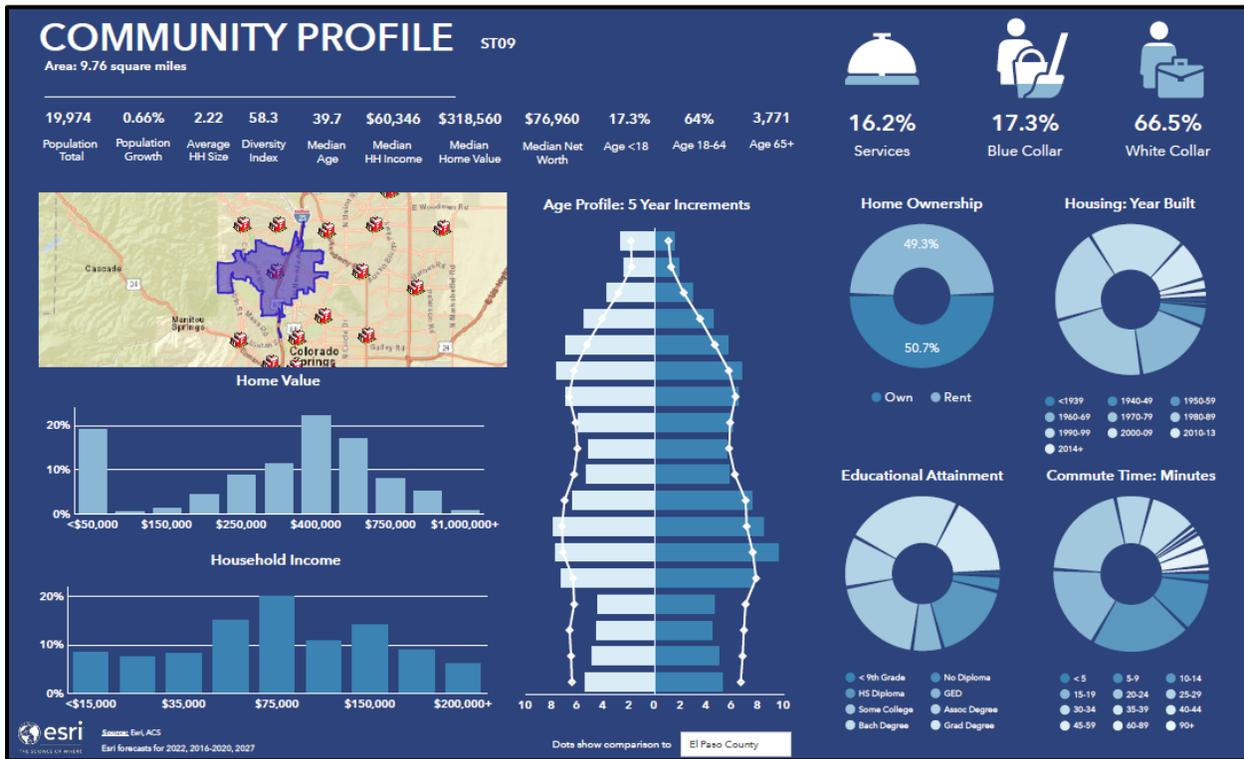
Satellite Hotel, 411 Lakewood Circle – This is a 13-story high-rise senior living apartment building with commercial occupancies on the main floor and penthouse. Floors 2-4 are hotel rooms, and floors 5-13 are senior apartments. There are no sprinklers in the residential areas.

Glaser Energy Group, 215 Auburn Drive – This is a propane storage facility surrounded by businesses, major thoroughfares, and residential properties. A release and ignition could be catastrophic and require a large evacuation zone.

Colorado Springs Airport - While the passenger terminal itself is not in Station 8's district, the Colorado Springs Jet Center, Skywest Hangar, and the northern part of two runways are in the district. Access to this property is limited to several access control points (ACP). An aircraft incident could involve the potential for a mass casualty incident, large fire, hazardous materials release, and damage or destroy existing infrastructure.

Major Thoroughfares - Several heavily used roadways run through this district. These include Academy Boulevard, Platte Avenue, Fountain Boulevard, and Powers Boulevard. These roads have high volumes of traffic with high speeds and contain some of the most statistically dangerous intersections in the city.

## Fire Station 9 – 622 W. Garden of the Gods Road



### General Description

Fire Station 9 has a diverse set of risks because of its low- and high-end residential, industrial, commercial, transportation thoroughfares, and geographical features.

The eastern area of the district incorporates Interstate 25 that runs north and south. This major interstate produces traffic accidents of varying severity, as well as traffic accidents that have the potential for hazardous material release. Running parallel to the interstate is Monument Creek that serves as a major waterway for most of the city’s stormwater runoff. On significantly rainy days, this creek can produce the potential for swift water rescue. Also running parallel to the interstate is a Burlington Northern Santa Fe (BNSF) owned railway that poses a hazardous materials, fire, and safety threat to surrounding residents of the district.

In the northeast portion of the district, several low-income mobile home parks are scattered to the south of a newer constructed outdoor shopping center that includes a Costco and Lowes. Across from the shopping center is the University of Colorado, Colorado Springs (UCCS). Station 9 is

responsible for response to many of the dormitories, classroom buildings, and athletic fields. Surrounding UCCS is a large open space that contain several hiking trails of various elevations.

The north and northwest areas of the district include a large WUI footprint that contains numerous hiking trails and high-income homes. During the warm months, trail rescues are common.

The central portion of the district includes Garden of the Gods Road. This east/west running thoroughfare is a major commercial road that houses a mixture of fast-food restaurants and commercial buildings. These various occupancies produce a lot of vehicle traffic, resulting in numerous vehicle and pedestrian accidents.

To the south, Station 9 responds to numerous motel chains, often housing low-income citizens that use these extended stay facilities as a permanent form of residency.

### **Highest Risks**

Parker/Velcon Filters, 1210 Garden of the Gods Road – This is an industrial occupancy that specializes in liquid filtration systems. It stores over 25,000 gallons of jet fuel on the property. Any spill or release could result in a large life hazard and would have a major impact on the surrounding area if an evacuation were required.

Cobham Semiconductor Solutions, 4350 Centennial Boulevard – This is a supplier of circuits and circuit card assemblies. It stores Cobalt 60 on site. Any spill or release could result in a large life hazard and would have a major impact on the surrounding area if an evacuation were required.

El Paso County Service Center, 1675 W. Garden of the Gods Road – This is a large building with an adjacent parking garage that is the primary location for county services. Offices in this building include Public Health, Department of Human Services, County Assessor, and Department of Motor Vehicles. The nature of these services and the large number of daily visitors create high life hazards of varying degrees.

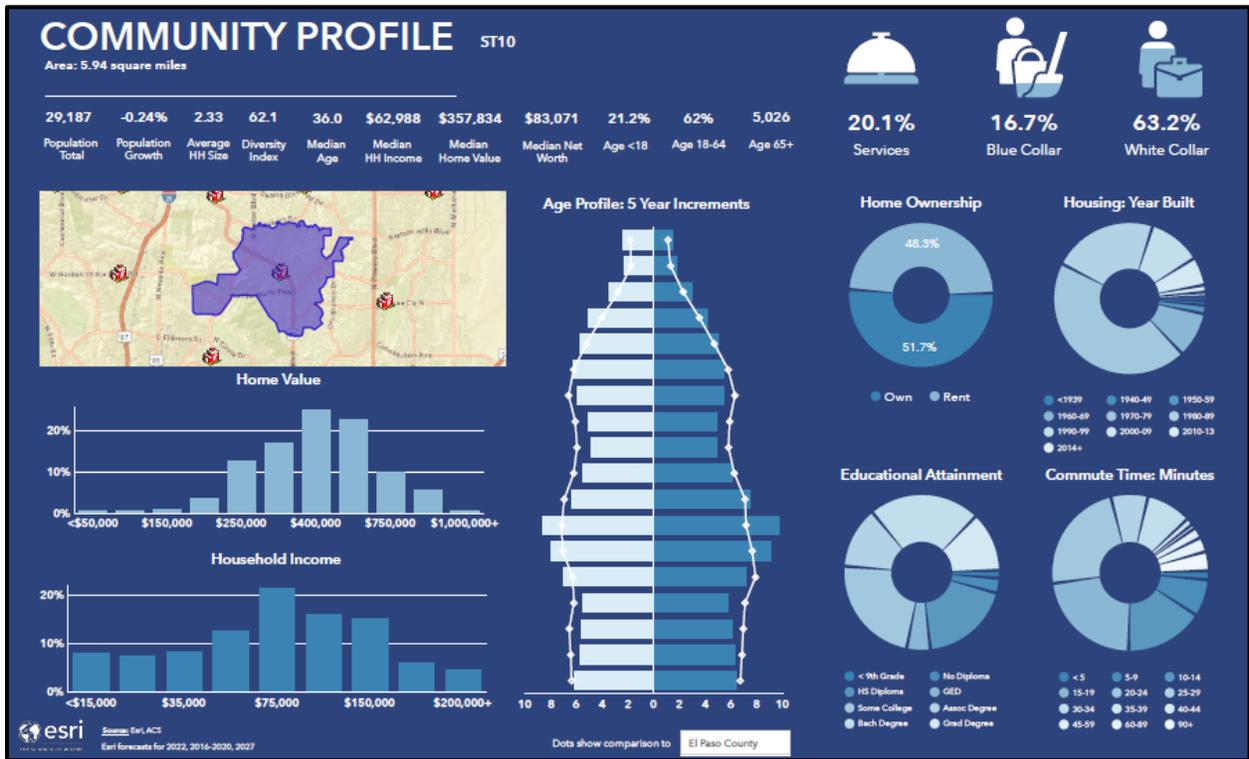
The Lodges, 5870 N. Nevada Avenue – This large apartment complex is primarily occupied by students of the nearby University of Colorado Colorado Springs (UCCS). Three of the buildings are connected by hallways, which makes identifying the correct address an issue. The fire department connections on these three buildings are located along the front of the structures, near breezeways which provide access to the back side of the building. There is no road access to the back side of the largest building, making it impossible for emergency vehicles to access that part of the structure. Some of the units have four or five bedrooms each with a shared common space and the rooms are rented out separately. Therefore, during an emergency all occupants of these spaces may not be aware that emergency crews have been called. This occupancy configuration may lead to extended response times.

UCCS, 1420 Austin Bluffs Parkway - UCCS is a major part of the University of Colorado educational system. The campus continues to grow year after year, often adding new structures. With a growing student population of over 11,000, UCCS presents Station 9 with risks including, but not limited to, fire, medical, hazardous materials, and mass casualty.

Wildland Urban Interface – The majority of this district lies in the WUI due to its proximity to the foothills on the west side of the city. Residential neighborhoods in the north side of the district contain steep sloping roads and heavy vegetation. Glen Eyrie, which has great historical value, is in the WUI. The property lies in the foothills among red rock formations and contains the home (a 67-room castle) of General William Palmer, the founder of Colorado Springs.

Burlington Northern Santa Fe (BNSF) Railroad - This railroad is a major transportation route through Colorado Springs. Daily, trains transport various hazardous materials along this railway. Trains also pose a threat to transient personnel who reside by the tracks, as well as threats in the form of brush fires caused by sparks from the train cars.

## Fire Station 10 – 3730 Meadowland Boulevard



### General Description

Fire Station 10 is located on the corner of Academy Boulevard and Meadowland Boulevard. Station 10’s district is a mix of single and multi-family residential, and light industrial areas. Within Station 10’s response district lies three main city roadways: Academy Boulevard, Austin Bluffs Parkway and Union Boulevard. These streets each consist of six lanes of roadway with a high volume of daily traffic.

### Highest Risks

There are two areas within Station 10’s district that include El Paso County property that is not inside the city limits of Colorado Springs. However, the CSFD provides fire and medical response to these areas.

In the county area, there is an above ground waterway known as the Siferd Drainage. During times of heavy rain, the creek runs above ground and crosses Siferd Boulevard creating a significant fast-moving water hazard making the intersection impassable to motorists. In the

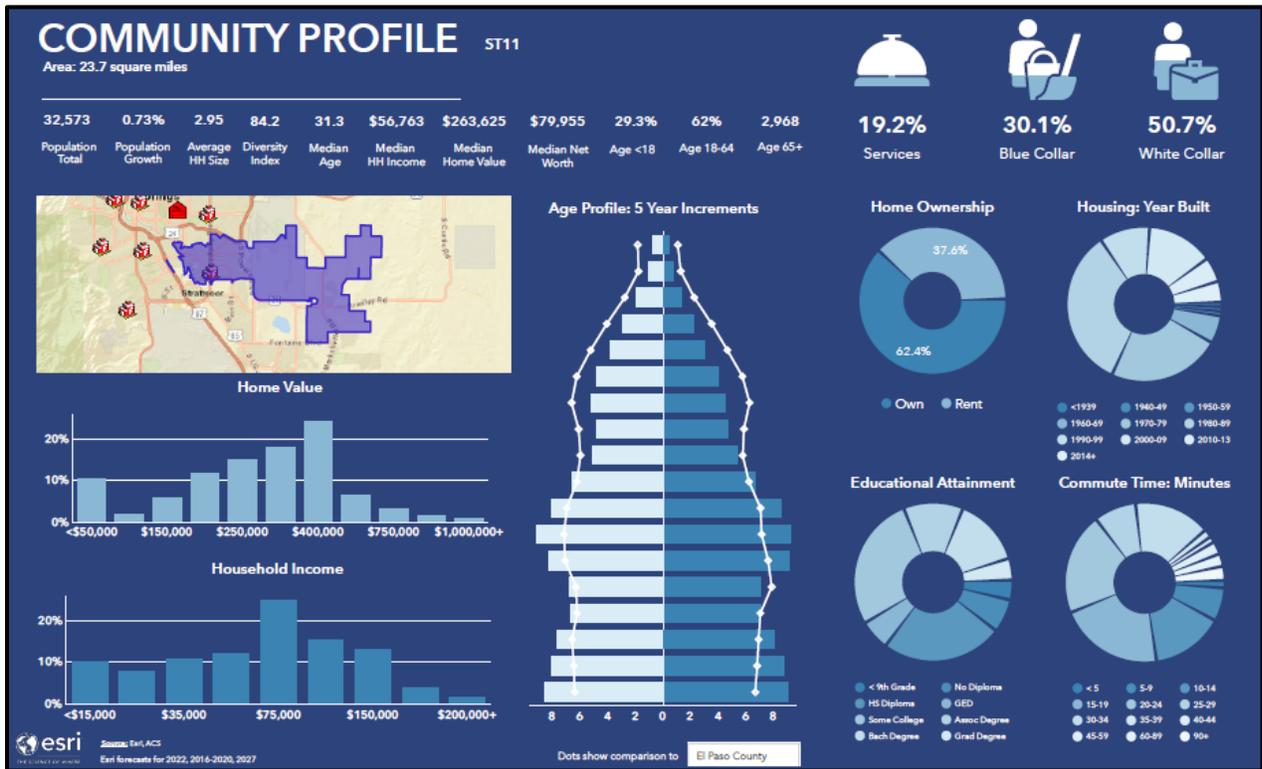
event of a stranded motorist, there is a potential for high-risk water rescues. There are three gates that the fire department can close when needed to keep motorists from crossing the drainage.

Fire Station 10 covers a large portion of the University of Colorado Colorado Springs (UCCS). Over 11,000 students attend UCCS with an additional 600 faculty members. The campus is adjacent to the Austin Bluffs Open Space, and University Park Open Space. These areas encompass over 600 acres of native grass and scrub oak with areas of heavy timber tree stands.

There is a significant number of homes, businesses and educational facilities located within the WUI. These areas are mainly accessed with a single entry and exit roadway. These areas include Palmer Park, Austin Bluffs Open Space, and University Park Open Space along with numerous single family residential neighborhoods. In the event of a wildfire, would pose a significant threat to many residents and structures.

There are numerous multi-family residential apartment complexes in this district of varying construction, layout, and age. Many of these apartments do not have fire sprinklers or fire detections systems. Poor apparatus access and sparsely placed fire hydrants are a common occurrence in these properties. These factors can negatively affect response in the event of an emergency.

## Fire Station 11 – 3810 Jet Wing Drive



### General Description

Fire Station 11 serves the southeast part of the city. It has a high population of low-income and non-English speaking residents. The Colorado Springs Airport lies in this district; the CSFD provides response for medical calls, structure fires, and hazmat calls, but not for aircraft rescue and firefighting (ARFF). ARFF is provided by the Peterson Space Force Base Fire Department. There are, however, many aircraft related and industrial businesses in the area. There are also two detention facilities, including the El Paso County Criminal Justice Center, and the Spring Creek Juvenile Detention Center.

Fire Station 11 responds to an area known as Colorado Centre through an intergovernmental agreement. This is a metropolitan district outside the city limits with one engine that is approximately seven miles from the station. This station also responds with Fountain Fire Department to the Ray Nixon Power Plant. This facility is owned and operated by Colorado Springs Utilities and is approximately 17 miles away.

## **Highest Risks**

Rinchem, 3835 Wabash Street – This business is a chemical management service. It stores and distributes hazardous materials in the form of flammable liquids and gases, poisonous gases, corrosives, and oxidizers. It has extensive mitigation and control devices, however any spill or release at this facility would be of risk.

Amazon Fulfillment Center, 4333 Integration Loop – This business is a four million square foot facility that processes the movement and packaging of goods. It has an extensive wet sprinkler system with its own fire pumps. The main risk is that there are approx. 800 people working at facility at any given time.

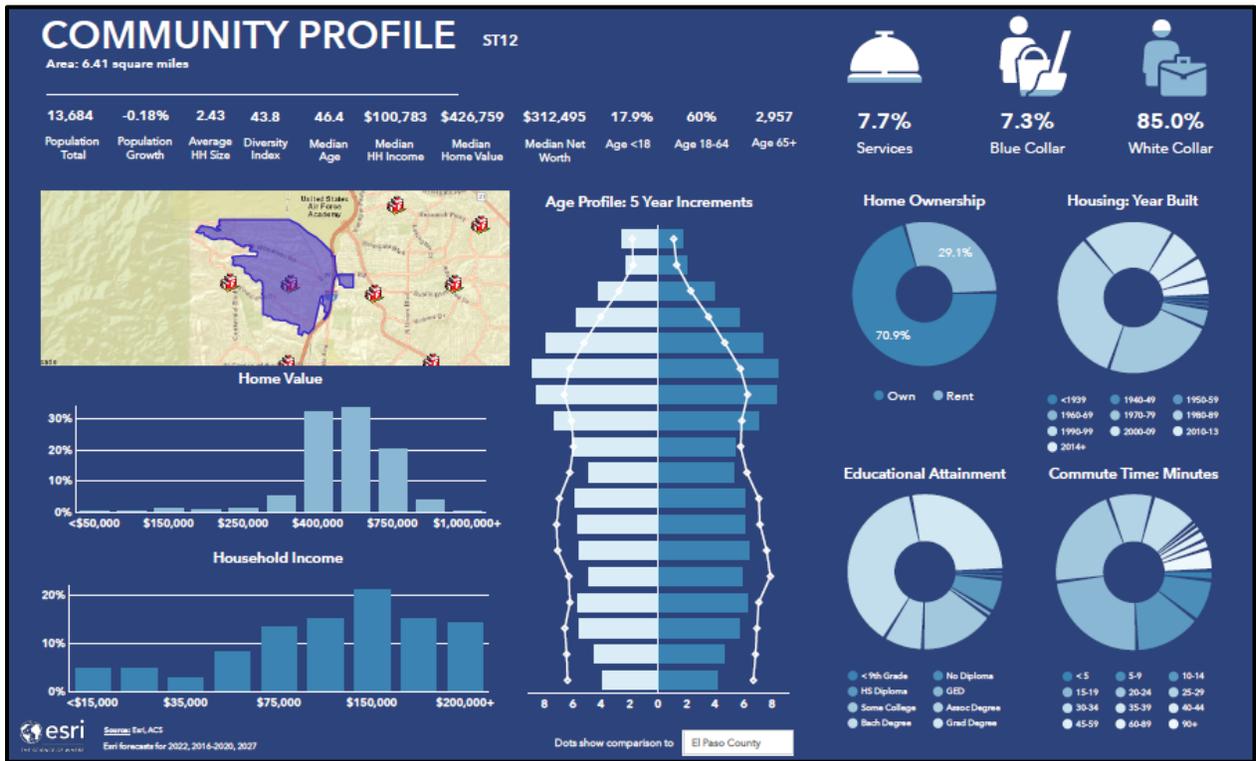
Nustar Logistics, 7810 Drennan Road – This business is a storage and distribution facility for hazardous materials in the form of gasoline, diesel fuel, jet fuel, and ethanol. It has large atmospheric floating-roof storage tanks and a transfer station for filling transport containers. This facility is quite a distance from Station 11 and lies outside the city limits in the Colorado Center metropolitan district. This facility has mitigation and control devices, but any spill or release from this location would prove high risk.

El Paso County Criminal Justice Center, 2727 E. Las Vegas Street – This facility has a high life hazard, largely due to issues with access to the complex that require advanced planning. Additional staffing would be necessary for evacuation, or to protect in place. There is also a risk to emergency responders, as the inmates are incarcerated for a variety of crimes.

Colorado Springs Airport, 7770 Milton E. Proby Parkway – The CSFD responds to medical incidents, structures fires, and hazmat incidents at this facility and assists the Peterson Space Force Base Fire Department with ARFF. CSFD crews can gain access easily to the airport terminal, but access to the airfield must be coordinated through airport operations at pre-determined access control points (ACP) and may result in a delay.

Multi-Family Residential Structures – Many apartment complexes in the district are not protected by a sprinkler system. Occupants of these buildings are often low-income, non-English speaking, and disabled. Evacuations would be problematic in the event of fire.

## Fire Station 12 – 445 W. Rockrimmon Boulevard



### General Description

Fire Station 12 serves the city's northwest area and lies entirely within the WUI. Many of the residential neighborhoods are in foothills with heavy fuel loads and complex access and egress that would require extensive hose lays. Area residences are on large lots with limited access and water supply. This station also responds to an unincorporated county area known as Woodmen Valley through an intergovernmental agreement.

One of the city's major waterways, Monument Creek, enters the district in this area from the north through the United States Air Force Academy property. A recent trend has shown large encampments of homeless persons along the creek banks.

The heavily traveled Interstate 25 runs along the east border of this district. There are several open spaces and parks.

This district has a large residential population with several small concentrations of commercial occupancies. These include the 10-story Marriott Hotel, several other hotels/motels, and a large

furniture retailer. In addition, the Mount St. Francis Nursing Center is a skilled care facility on a campus of 112 acres.

### **Highest Risks**

Marriott Hotel, 5580 Tech Center Drive. – This is a high-rise structure with the potential for many complex rescues. Access points for emergency apparatus are limited.

Mount St. Francis Nursing Center, 7550 Assisi Heights – This is a full-care nursing complex for elderly patients, many with limited or no mobility. There are several large buildings over a large area of land, and evacuations would be problematic in the event of a wildfire.

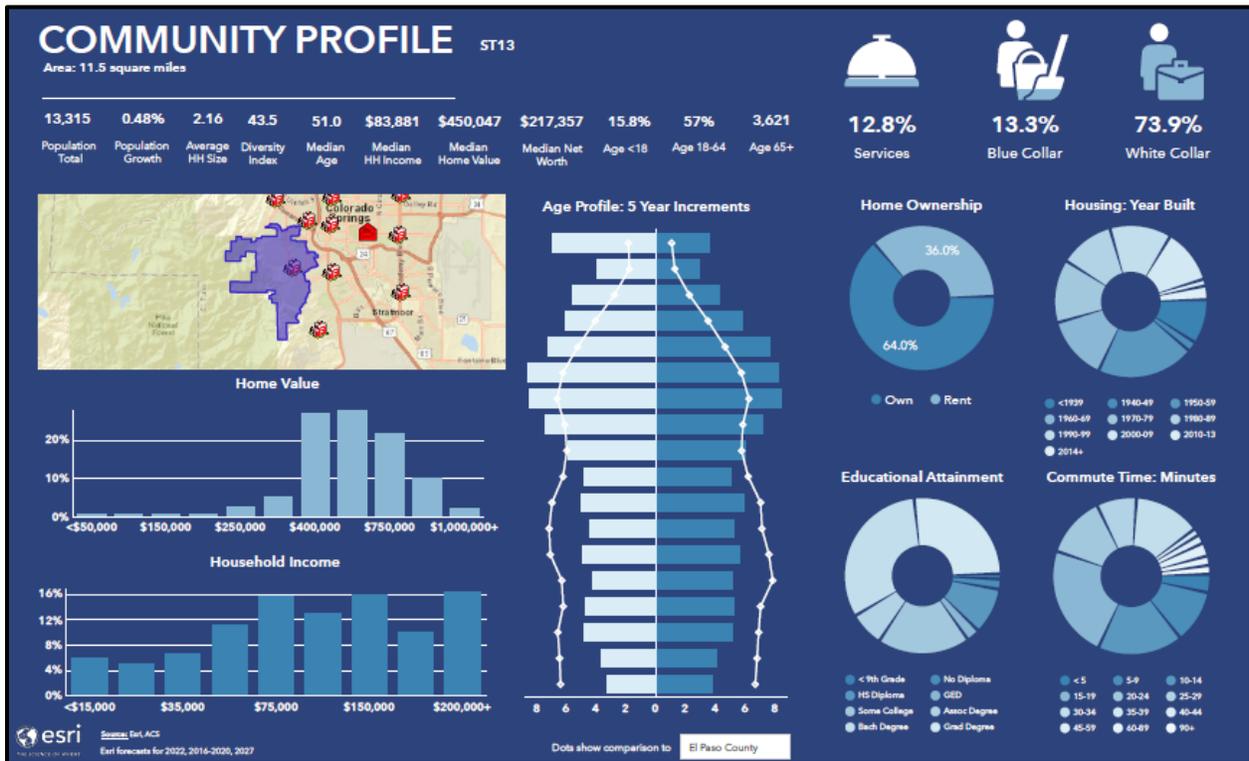
Viewpoint Senior Living, 555 S. Rockrimmon Boulevard – This is a skilled nursing care facility. Residents include all types, from independent seniors to memory care patients. While access to the building is good, the building is very large, and evacuations would be problematic.

Interstate 25 Corridor – This is a major north to south interstate highway. Any loss of this roadway could delay responses as well as access to hospitals.

Multi-Family Residential Structures - This district has several multi-family structures with varying construction types and fire protection. Many have attached wooden balconies and lie in the WUI. As a result, the potential for rapid fire spread is high in the case of a wildfire.

Open Spaces and Parks - Several open spaces have heavy vegetation and remote trails. Areas of natural vegetation, primarily scrub oak and pine trees in open space, present a heavy fuel load during drought conditions and delayed fire detection. Residential structures and recreational areas surround these.

## Fire Station 13 – 1475 Cresta Road



### General Description

Fire Station 13 serves the southwest area of the city and lies entirely within the WUI. It is situated in the foothills and consists of varying elevations. This station is one of two whose primary specialty is high-angle rescue. The population is upper middle to upper class with many expensive homes.

There is a large amount of open space with steep terrain that is heavily used for recreation. These areas include Stratton Open Space, Section 16, and North Cheyenne Canon. Several steep dirt roads with switchbacks access the side of Cheyenne Mountain, including Gold Camp Road and Old Stage Road, are used regularly by both residents and tourists.

The Broadmoor Hotel Complex lies within this district. This is an internationally renowned five-diamond resort at the foot of Cheyenne Mountain. It is nearly 100 years old and a historical landmark, built by one of the city’s founders.

Another significant structure in this district is the Cheyenne Mountain Zoo. It sits on the side of Cheyenne Mountain on 140 acres at an elevation of 6,800 feet. Its collection includes over 750 animals and one of the attractions includes a chair lift. Other structures in this district include many apartment complexes and senior living centers.

### **Highest Risks**

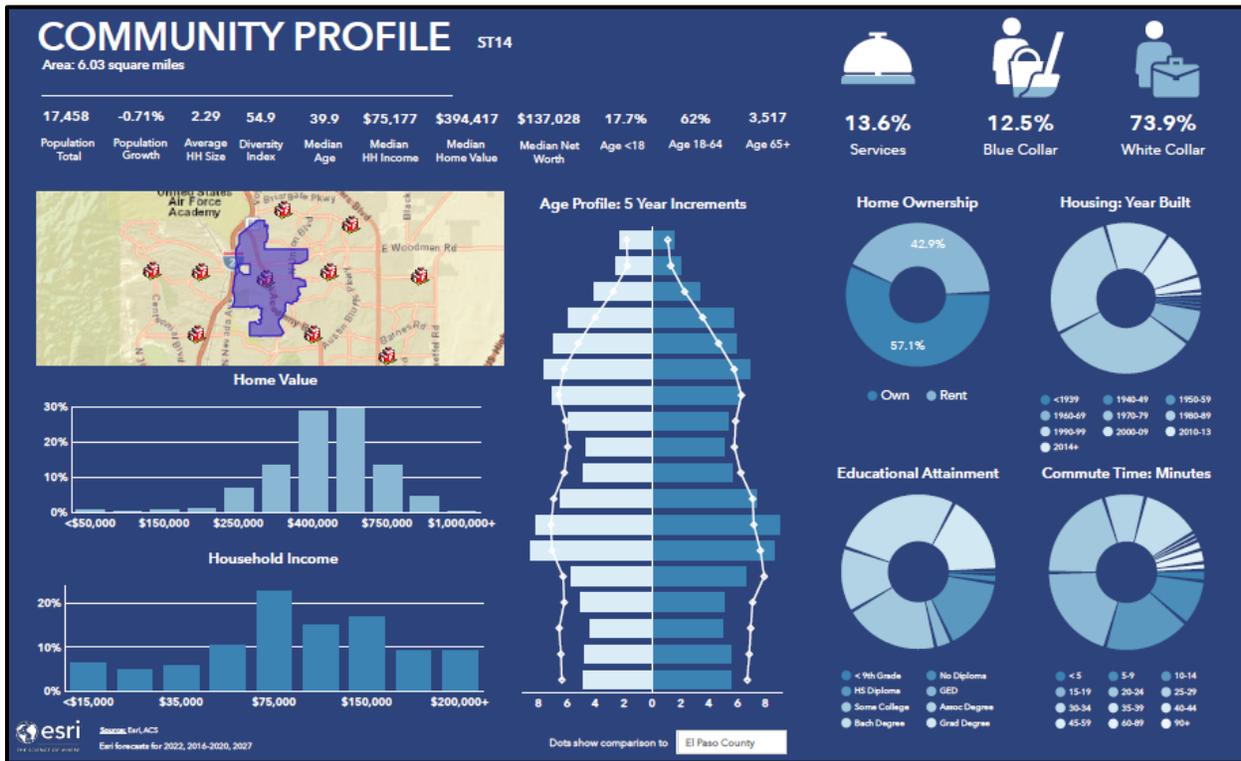
North Cheyenne Canon – This is a recreation area and a tourist attraction. It is a narrow steep canyon with extensive hiking and biking trails. It is heavily used, particularly in the summer, and has very limited access and egress for emergency responders. High angle and trail rescues are common in this area, and it also lies in the WUI.

The Broadmoor, 1 Lake Avenue – This is a very large, high-end resort that sits on over 3,000 acres. It is a destination resort with significant historical value. It regularly hosts national events, such as the Professional Golfers' Association tournaments and the Space Foundation Space Symposium. These require tight security measures and increased emergency responder presence. Besides the main hotel and grounds, The Broadmoor also runs Cloud Camp, a small resort that sits on top of Cheyenne Mountain, and The Ranch at Emerald Valley, a luxury retreat in the adjacent Pike National Forest. Cloud Camp and The Ranch at Emerald Valley are not accessible by Type 1 engines.

Broadmoor Terrace Apartments, 816 Oxford Lane – This is a six-story residential apartment complex. It has a limited water supply and fire department connections are a long distance away from hydrants. There is high risk to life in case of fire.

Brookdale at Skyline, 2365 Patriot Heights and Brookdale at Bear Creek, 1685 S. 21st Street – These are senior living facilities that include independent, assisted, and full care services. They include several large multi-storied buildings. Many of the occupants have limited or no mobility and evacuation would be problematic.

## Fire Station 14 – 1875 Dublin Boulevard



### General Description

Fire Station 14 serves the north-central area of the city. This is a densely populated district with a mix of residential, commercial, and WUI.

Pulpit Rock Open Space is bordered by residential structures at the top of the bluffs, businesses, and an electrical substation. There is a residential area in the west portion of the district where there are many large flag lots and another residential area in the north portion with large lots and limited water supply. The north-east part of the district (Stinson/Union and Union/Lexington) would require the use of a relay operation for water supply.

There are several waterways throughout the district. Some run through concrete channels and some are natural with steep and heavily wooded banks. Several major roadways run through this district, including Academy Boulevard, Union Boulevard, and Woodmen Road. The district closely borders east of Interstate 25. Woodmen Road has two new unique intersections at Academy and Union that diverts drivers turning left into a far-left turn lane while on-coming

traffic flows on their right. Accidents at these intersections are not common; however, when they do occur, they can be at a high rate of speed. These roads are heavily used, and congestion is an issue during peak traffic times.

The Falcon substation for the Colorado Springs Police Department lies in the northwest corner of the district and there are two electrical substations. The Chapel Hills Mall is a large indoor shopping mall with over 100 retailers and restaurants. The district is seeing many new apartment buildings, one at the old Sears retail store of the Chapel Hills Mall, off Kelly Johnson, and one at the expansion of the Current Campus off Woodman at Campus Drive. Many of the new apartment buildings are four stories or more in height. This growth of apartment construction is an example of the infilling of the city and will significantly increase the population of Station 14's district in the years to come.

### **Highest Risks**

Pulpit Rock Open Space – This large open space is bordered by single-family homes to the north and east, and the interstate, businesses, and a large apartment complex to the west. The area contains heavy vegetation with varying terrain; access by emergency vehicles is limited.

Berkshire Apartments, 2055 Mittenwald Drive – 14 large three-story buildings within this complex are wood construction with common attic space and no sprinkler system. The complex sits on rolling hills, making it difficult to place ground ladders. Truck company access is limited due to vehicles parked on both sides of the access streets. The exterior entry doors are kept locked, and the area is underserved by hydrants.

Windtree Apartments, 2530 Paragon Drive - There are 28 two-story buildings with wood siding, no sprinkler system, and very limited access for apparatus. The buildings share a common attic space. Truck company placement is challenged by mature trees, carports, and narrow roads within the complex.

Sunrise at University Park, 2105 University Park Boulevard – This is a senior facility that provides assisted living, memory care, and respite care. Most residents have limited, or no

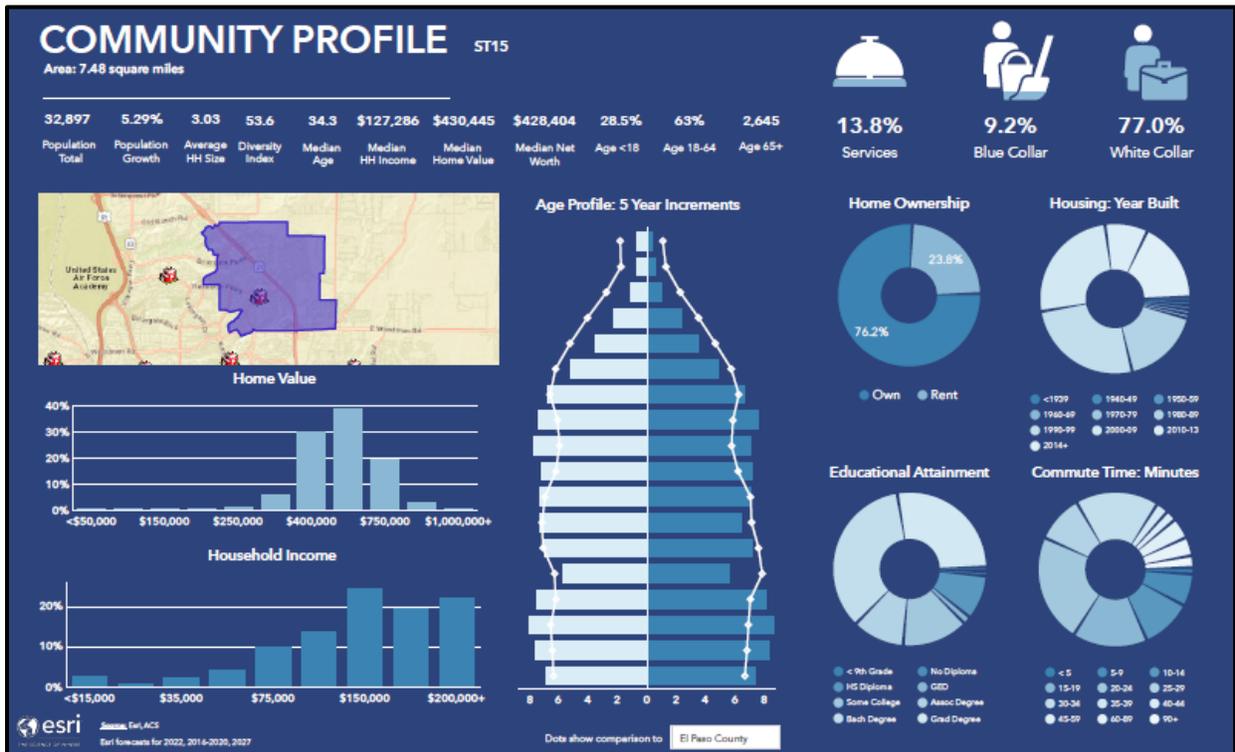
mobility, and evacuations would be problematic. The building is sprinklered and has access to two hydrants, but there is no access for apparatus on the back side of the building.

The Farm Sports-Lynmar 2660 Vickers Drive – This is a youth sports complex that has seen several additions over the years. It is a non-sprinklered facility that is underserviced with hydrants and possesses some access problems (especially when sports events are occurring). Locating a fire in the facility using a recon team could be beneficial.

Chapel Hills Mall, 1710 Briargate Boulevard – This is a large, indoor, multi-level shopping mall with over 100 retailers and restaurants. It is one of the busiest retail centers in the city, especially during the holiday season. The large capacity has the potential for high life hazards in the case of fire or active shooter. The mall is going through a transformation with the addition of an apartment complex being added to the west side where the former Sears retail store once was. This will be a rather large addition and will potentially increase call volume.

Current Facility and Land, 6765 Campus Drive – This is a unique mixed facility with light manufacturing and shipping of paper products and an attached strip mall. The alarm system has had some challenges since this building has gone through renovations. There are plans for a large apartment complex on the east side of the property, which will add to the population density of the district.

## Fire Station 15 – 4770 Scarlet Drive



### General Description

Fire Station 15 serves the northeast area of the city and is mostly residential. The population is middle to upper class. This area is still experiencing new growth in both single-family and multi-family housing construction to the north and east. University of Colorado Health - Memorial Hospital North, St. Francis Medical Center and Children’s Hospital all lie in this district. There are many large apartment complexes and senior living facilities. Fire Station 15 regularly responds with neighboring agencies Black Forest Fire Department and Falcon Fire Department.

The district often receives more snowfall than other areas of the city, which can negatively impact response times. There are several waterways that see large amounts of fast-moving water from flash flooding. Major roadways include Woodmen Road, Austin Bluffs Parkway, Research Parkway, and Powers Boulevard.

## **Highest Risks**

University of Colorado Health - Memorial Hospital North, 4050 Briargate Parkway – This is a large full-service hospital with approximately 125 beds. Many of the patients are non-ambulatory and evacuation would be problematic in the case of fire. Large medical equipment and hazardous materials stored on site could complicate a fire incident. Construction of a new expansion to the hospital may impede emergency vehicles accessing the facility.

Children’s Hospital, 4090 Briargate Parkway - This is a large full-service children’s hospital with over 110 beds. Many of the patients are non-ambulatory and evacuation would be problematic in the case of fire. Large medical equipment and hazardous materials stored on site could complicate a fire incident.

Antelope Ridge Point – This is a paired home community located on the north/west corner of Austin Bluffs Parkway and Meadow Ridge Drive. The area is extremely tight with cars on both sides of the street creating a single lane access through the area. Placing multiple apparatus in this area and evacuating residents will be difficult.

Bonaventure Senior Living, 9112 Grand Cordera Parkway – This is a four-story senior facility that provides independent living, assisted care, and memory care. There are many residents with limited, or no mobility and evacuations would be difficult in the case of fire.

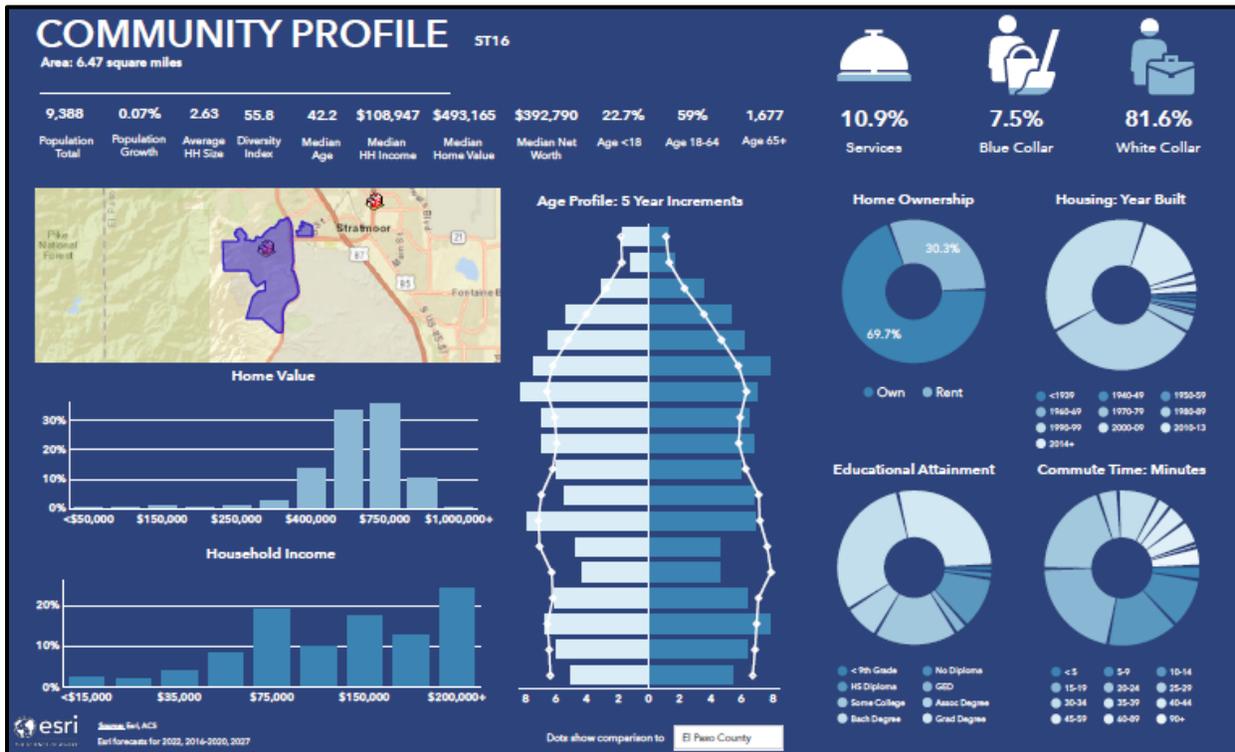
The Center at Cordera, 9208 Grand Cordera Parkway – This is a three-story rehabilitation facility that houses many patients with limited, or no mobility. Evacuations will be difficult and time consuming in the case of fire.

New Dawn Memory Care, 4185 Briargate Parkway – This is a senior facility that provides memory care, respite care, and hospice care. The residents of this building have limited, or no mobility and evacuations would be difficult in the case of fire.

Waterways/Flash Flooding, multiple – Areas such as Cottonwood Creek carry large volumes of water and can become dangerous very quickly during heavy rain. The banks of these waterways

are very sandy with steep ravines and have no barriers to keep people from entering. Rescues would be extremely difficult. There are also several homeless camps along these natural waterways, which are only accessible by foot.

**Fire Station 16 – 4980 Farthing Drive**



**General Description**

Fire Station 16 serves the southwest area of the city and lies entirely within the WUI. The area is mostly residential, and the population is upper middle to upper class. Due to the proximity to two military facilities, there is also a significant military population. The district consists of many large expensive homes on the hillside with heavy vegetation, steep roads and long driveways. Winter weather can slow response times on these roads. There are only three egress routes out of the area, which could complicate evacuation during a wildfire.

This district is adjacent to Fort Carson Army Post and Cheyenne Mountain Space Force Station (CMSFS). The only road into CMSFS runs through Fire Station 16’s district. Two gates onto Fort Carson are located on South Academy Boulevard and Highway 115, both of which run through this district, and experience a high volume of traffic.

## **Highest Risks**

The Palisades at Broadmoor Park, 4531 Palisades Park View – This is a senior living facility that provides independent and assisted living, memory care, and respite care. The complex consists of six multi-level buildings. Many of the residents have limited or no mobility and evacuation would be problematic in the case of fire.

Multi-Family Residential Structures – The Pines at Broadmoor Bluffs Apartments is a complex of 14 large buildings that lie on the hillside in heavy vegetation. Access to some of the buildings is only accessible by foot. There are several large apartment complexes on Westmeadow Drive with over 100 buildings total. Any of these have a high potential for loss of life during a fire.

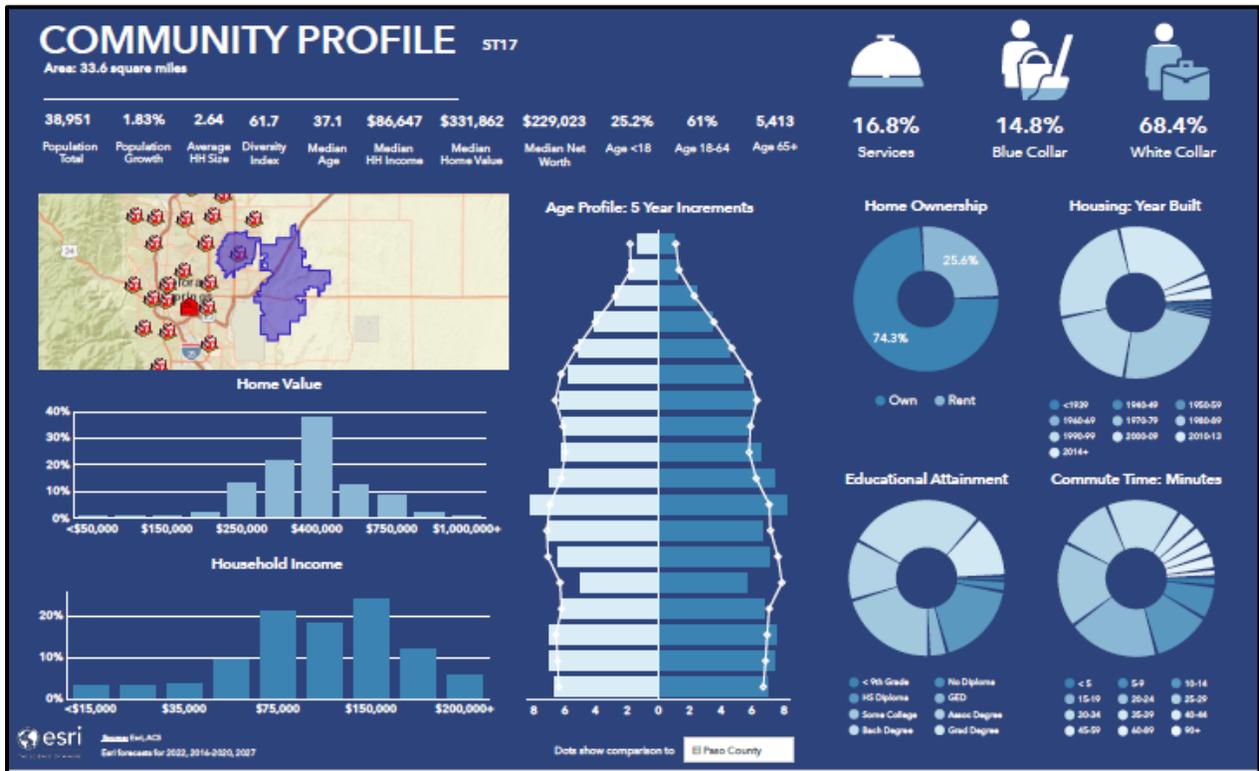
Subsidence, hillside areas – An increase in subsidence activity has taken place due to weather and geological instability. This has compromised the structural stability of some very large homes on Broadmoor Bluffs Drive, Stone Manor Heights, Charles Grove, and Summer Spring View. Many of those homes have been identified and demolished through a federal and state buyout program. Undeveloped areas have experienced landslides that have affected underground utilities. The City of Colorado Springs has commissioned an Engineering Geology Study that provides consistent geologic and geotechnical data from which to draw information to better understand geology and slope movement in the area and to make more informed decisions on land use, site development, and potential mitigation alternatives, if needed.

Wildland Urban Interface – Due to slope and the amount and type of fuels, a wildfire in this area has a high potential to quickly spread. The area also includes Cheyenne State Park, a heavily used 1680-acre recreational area that includes overnight campsites and day use areas. There continues to be in-fill to the WUI with additional parks and housing being planned for the area. This would require evacuation of thousands of residents that would impede access by emergency vehicles. A wildfire in this area would exceed resources of the initial response and additional CSFD units will have extended response times, due to the location of this area.

Terrorism – Cheyenne Mountain Space Force Station formerly housed NORAD (North American Aerospace Defense Command) and is in a large bunker complex inside of Cheyenne

Mountain. Primary NORAD operations have been moved to Peterson Space Force Base on the east side of the city, with operations inside Cheyenne Mountain as the alternate command center; however, with more than a dozen government and Department of Defense agencies still inside, it remains a terrorist target.

## Fire Station 17 – 3750 Tutt Boulevard



### General Description

Fire Station 17 serves the east central area of the city. It has a mix of densely populated residential neighborhoods and many businesses along the heavily traveled Powers Boulevard. Other major roadways that carry a large volume of traffic include Constitution Boulevard, Stetson Hills Boulevard, North Carefree Circle, Barnes Road, Peterson Road, and Marksheffel Road.

There are several flood zones in this district, the largest being Sand Creek which flows under major roadways. The water is largely contained in broad natural areas, but heavy rain causes the water to rise quickly. These areas have unrestricted access in some areas and there is a potential for swift-water rescues.

The El Paso County Household Hazardous Waste collection facility is in this district. This disposal facility accepts a wide variety of household hazardous materials that could be problematic in the case of fire.

UCHealth Park is in this district, where a minor league baseball team (the Rocky Mountain Vibes) play. Adjacent to UCHealth Park is Weidner Field, the former home of the Colorado Springs Switchbacks, a professional soccer team.

### **Highest Risks**

Colorado Springs Utilities Propane Plant, 7723 N. Carefree Circle – This facility provides the City of Colorado Springs with additional gas supply to its distribution system. It stores 42 tanks each containing 30,000 gallons of liquid propane. A release at this facility would affect the surrounding neighborhoods and low-lying areas.

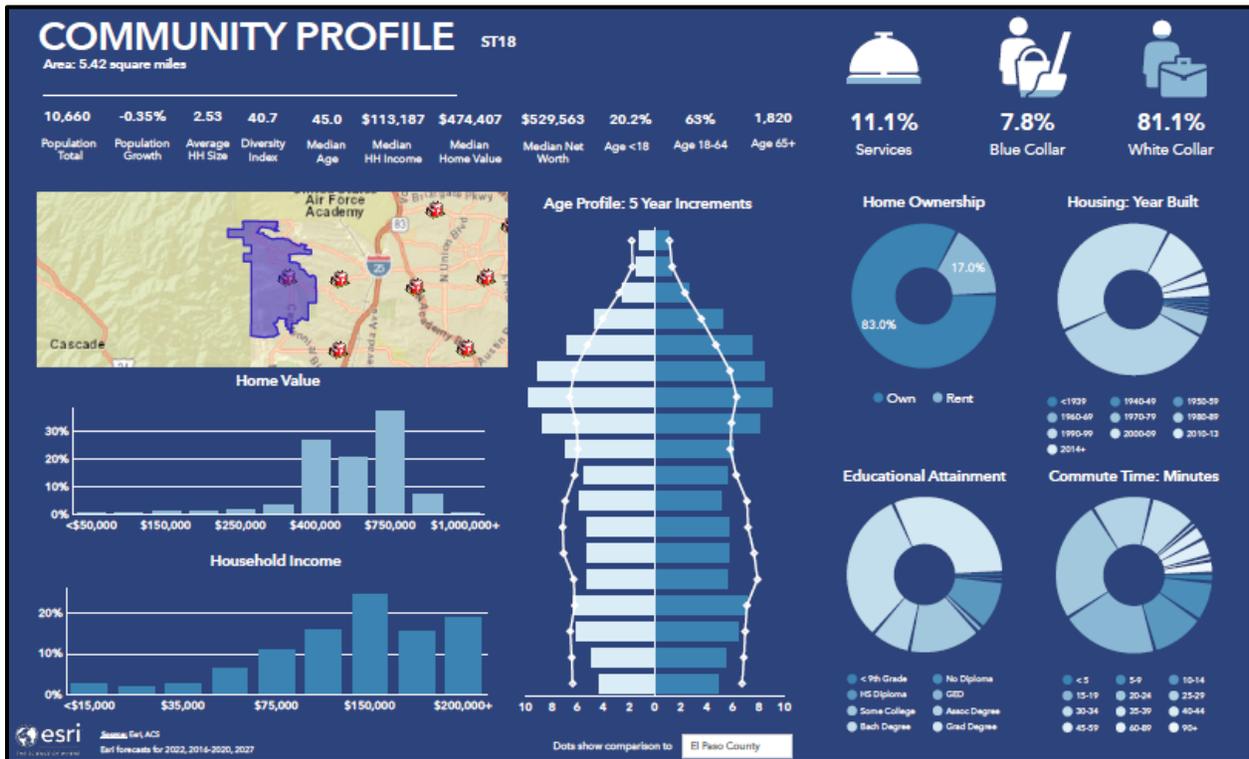
Colorado Springs Utilities Edward Bailey Water Treatment Plant, 977 Marksheffel Road – This water treatment plant is the largest in the Southern Delivery System, which brings water to Colorado Springs and surrounding areas. This facility has the capacity to push 50,000,000 gallons per day and a major incident here would severely impact water supply to the region.

First and Main Town Center, 3650 New Center Point – This is 135 acres of retail shops, restaurants, and a large movie theater. There are many people in the area on a daily basis, especially during the holiday season. Any type of large incident has the potential to impact thousands of people.

UCHealth Park, 4385 Tutt Boulevard – This minor league baseball stadium has a seating capacity of 8,500 but has a record attendance of over 9,500. The potential high life hazard is present in the case of an active shooter or terrorist event. There are fireworks after every Friday night home game. This attracts more visitors to both the stadium itself and the area immediately surrounding it. The stadium is flanked to the south and east by open space where there is the potential for wildfire caused by the fireworks that would impact the adjacent residential neighborhoods.

Weatherford, 3285 Capital Drive – This is an industrial plating company that stores large quantities of acids, caustics, and corrosives. In the event of a fire, toxic airborne chemicals have the potential to threaten the surrounding area.

## Fire Station 18 – 6830 Hadler View



### General Description

Fire Station 18 serves the northwest area of the city and is entirely in the WUI. It is bordered to the west by Pike National Forest lands and to the north by the United States Air Force Academy property. The area is mostly residential and lies on a hillside area with heavy vegetation. This area sustained significant destruction during the Waldo Canyon Fire in 2012 when 46 homes were damaged and 347 were destroyed. Most of those homes have been rebuilt, but construction continues in the area.

There are several large open spaces and parks that are regularly used for recreation. These include Ute Valley Open Space, Mountain Shadows Open Space, and Blodgett Peak Open Space. Except for Blodgett Peak, these areas are surrounded by residential neighborhoods. Large water storage tanks are located at the top of the Mountain Shadows and in the Peregrine neighborhoods. There is an electrical substation adjacent to the Mount St. Francis nursing complex.

## **Highest Risks**

MorningStar at Mountain Shadows, 5355 Centennial Blvd. – This is a senior facility that provides independent and assisted living, respite care, and memory care. Many of the residents have limited or no mobility and evacuations would be problematic in the case of fire.

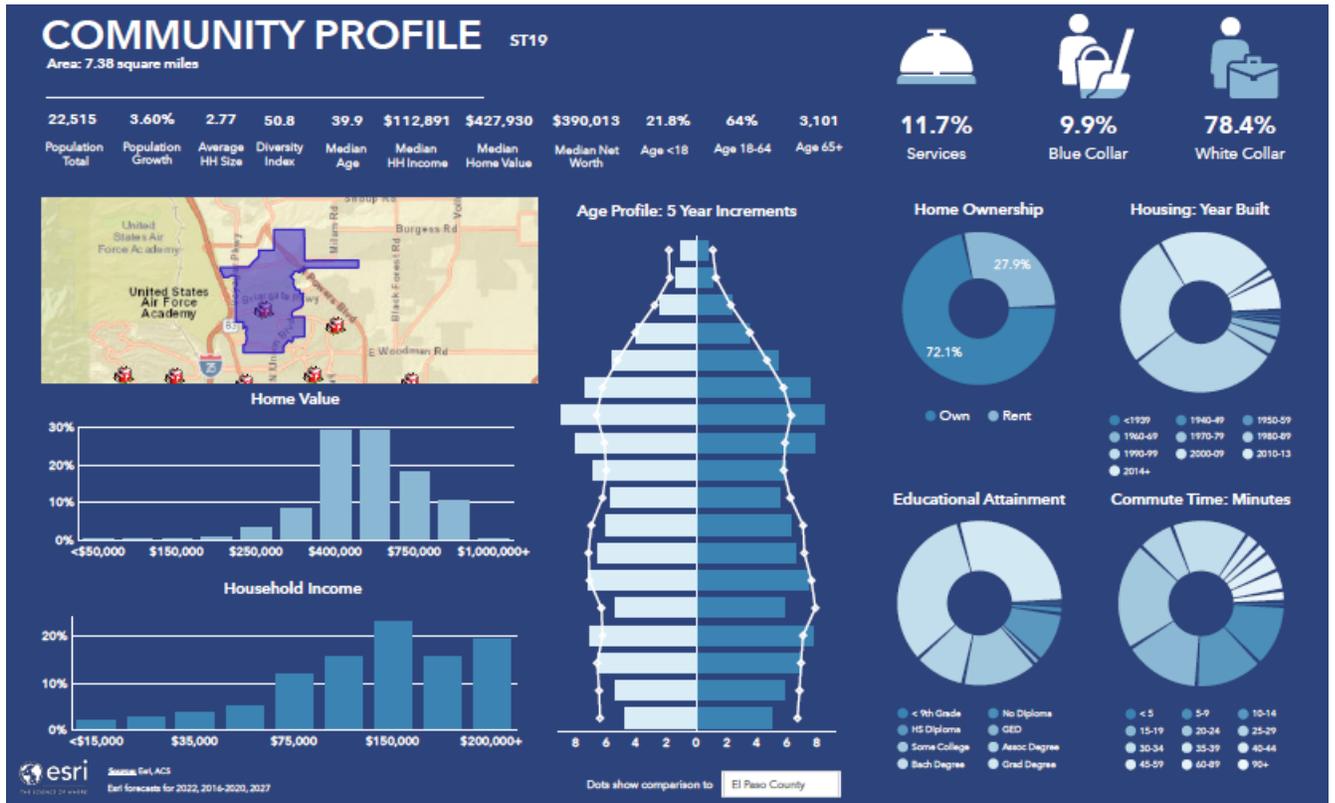
Alpine Autism Center, 2760 Fieldstone Rd. – This center teaches life skills to individuals with autism. This facility lies within a natural waterway that has experienced substantial flooding in the past. It operates during typical business hours, but due to its population, a substantial rescue effort would be required in the case of fire or flood.

Wildland Urban Interface – Although the area sustained significant damage during the Waldo Canyon Fire in 2012, the potential still exists for another wildfire. Its proximity to national forest lands and the heavy vegetation in the area provide substantial fuels. As experienced in 2012, egress routes are limited with the number of residents in this area that need to evacuate. A wildfire in this area would exceed resources of the initial response and would require additional CSFD units resulting in extended response times, due to the location of this area.

Flooding – The burn scar from the Waldo Canyon fire has caused significant water control issues. The hillside above the Mountain Shadows neighborhood was stripped of its natural vegetation, allowing heavy rains to flow more easily into the area. Efforts have been made to install engineered retention devices that have been helpful, but flash flooding and water flow downstream is still a concern.

Multi-Family Residential Structures – There are several very large apartment and condominium complexes containing multi-story buildings. Some of these complexes contain buildings that are only accessible by foot. Many of these complexes also have limited access for emergency vehicles. The high density of occupants would pose a high life hazard in the case of structure or wildland fire.

## Fire Station 19 – 2490 Research Parkway



### General Description

Fire Station 19 serves the north end of the city. It is bordered to the west by the United States Air Force Academy (USAFA) property and regularly responds with neighboring agencies Black Forest Fire Department, Monument Fire District, and USAFA Fire Department. There is a large residential population consisting of upper middle to upper class residents. The homes tend to be newer and larger than in other areas of the city.

There are several large employment centers in this area, including T. Rowe Price, Focus on the Family, USAA, and T Mobile. Fire Station 19 responds with the Donald Wescott Fire Protection District to a county enclave where there are no hydrants. There is another neighborhood between Woodmen Road and Union Boulevard where the houses are on large lots where there are minimal hydrants that have low water flow. This station also responds with the USAFA FD to Interstate 25, typically for traffic accidents.

## **Highest Risks**

Legend of Colorado Springs, 2368 Research Parkway. – This is a senior living facility that provides only assisted living and memory care. There are many residents with limited or no mobility and evacuations would be difficult in the case of fire. The building has a central fire alarm system and is sprinklered. Staff preforms annual fire drills.

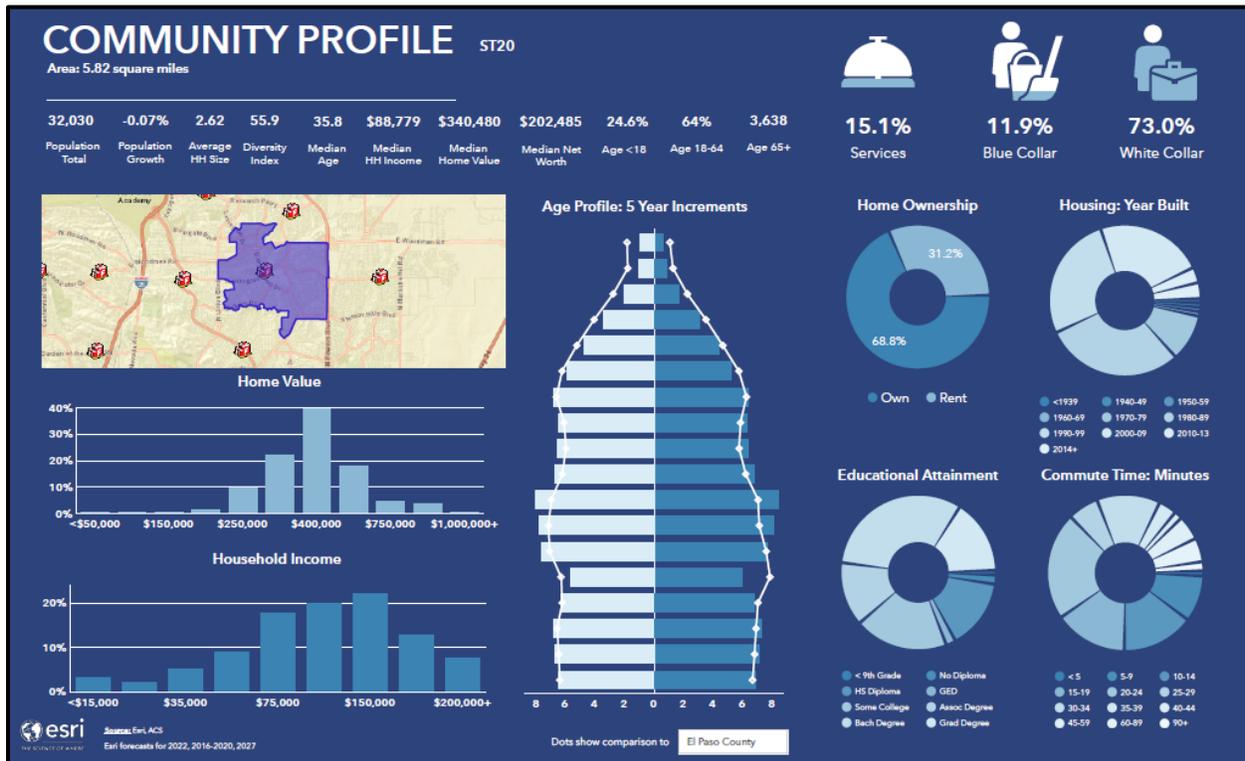
Winter Storms – The north end of town receives greater amounts of snow than other areas of the city. Snowplows often have a difficult time keeping roads clear. This weather creates an increase in traffic accidents, as well as stranded motorists, and extended response times for both fire apparatus and ambulances. There is a higher risk to both emergency responders and citizens during winter storms.

The Commons Apartments, 2845 Freewood Point. – This apartment complex of 20 large buildings has attached garages for every unit, with either one or two-story floor plans. Most units have wood fireplaces and second story balconies. Alarm systems are local only to individual apartment and there are no sprinkler systems.

USAA, 1855 Telstar Drive – This is a large five-story commercial building that houses several hundred employees. It also contains a 12,500 square foot childcare facility for children of the employees and a 10,000 square foot fitness center. USAA currently has significantly reduced in-person staffing and is utilizing more remote work programs, due to the pandemic. It is unknown when in-person staffing levels will return to pre-pandemic levels. The entire structure is sprinklered and has advanced monitoring systems to include on-sight security.

Traffic Accidents on Interstate 25 – There is a large volume of traffic on this major roadway through the city, from passenger vehicles to trucks transporting hazardous materials. The high rate of speed on this road poses a hazard to emergency responders on the scene of an incident. This stretch of the highway falls under USAFA jurisdiction.

## Fire Station 20 – 6755 Rangewood Drive



### General Description

Fire Station 20 serves the north central area of Colorado Springs. It is mostly residential with a middle-class population. There are 16 large high-density apartment and townhome complexes in the area. There are six elementary schools, one middle school, and one all-ages private school. Major roadways include Woodmen Road and Austin Bluffs Parkway, where most commercial occupancies are located. Powers Auto Park on Woodmen Road is a large complex of auto dealerships selling new and used vehicles. This area of the city is newer construction with modern materials and engineering.

Cottonwood Creek is a large waterway that runs through the middle of the district. It runs directly behind Fire Station 20 and is near schools, parks, and homes. This creek lies in a natural canal that is wide with steep banks in some places with no barriers to prevent access. During heavy rain Cottonwood Creek waterway rises and becomes fast moving very quickly.

## **Highest Risks**

Brookdale Briargate, 7560 Lexington Drive – This is a senior care facility that provides independent living, assisted living, and memory care. Most of the residents have limited or no mobility. Fire apparatus only have access from one side of the building. Doors are kept locked throughout the facility due to memory care residents. An evacuation at this facility would be problematic given the number of patients limited staff, and limited ambulatory occupants.

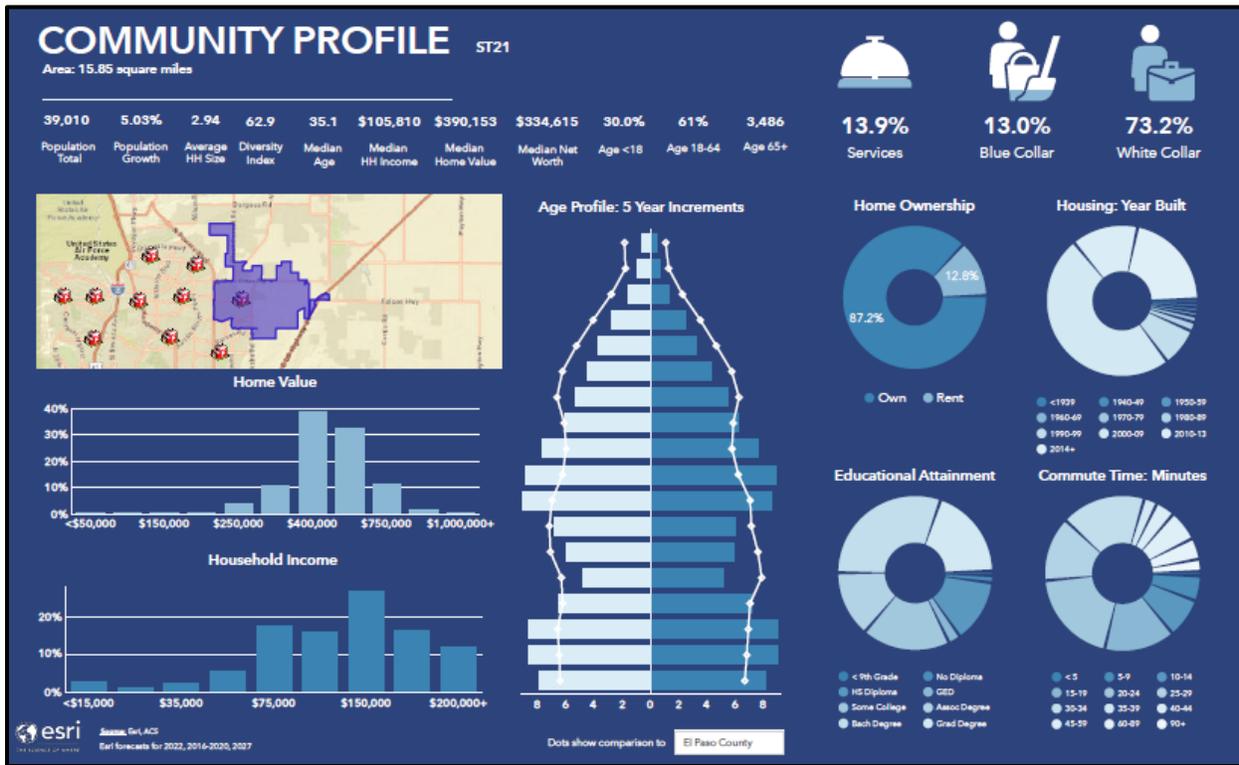
Sunridge Senior Center, 5820 Flintridge Drive - This is a senior care facility that provides independent living, assisted living, and memory care. Most of the residents have limited or no mobility. Fire apparatus only have access from one side of the building. An evacuation at this facility would be problematic given the number of patients and limited staff.

Sunset Mesa Open Space – This open space is long and winds through several residential neighborhoods. It consists of small gullies and cliffs with moderate grasses and brush. It is flanked by homes on all sides. Direct access is limited for fire suppression, access for structure protection would require defending many small streets and cul-de-sacs from multiple access points.

Appaloosa Drive – This area is in an unincorporated part of the county with no hydrants, making water supply complicated. The single-family homes are on large lots with long narrow driveways and access for multiple apparatus would be difficult.

Cottonwood Creek – This is a large waterway that can be very problematic when it is full and flowing quickly. It is adjacent to schools, parks, and homes and it is fully accessible by people. The creek bed is very wide and sandy; water rescue attempts would be difficult.

## Fire Station 21 – 7320 Dublin Boulevard



### General Description

Fire Station 21 serves the northeast area of the city. Most of this district is single-family residential with multiple retail being built as well as stand-alone fast-food restaurants that are located along Dublin Boulevard and Powers Boulevard. This is a growing area with new construction expanding the district to the south and east. As such, maps are not always current and not all streets are listed.

It is mostly flat terrain with several waterways, including Sand Creek, running through it. There are numerous large open fields of prairie with no road access. The flat terrain and higher elevation make this area more prone to extreme weather, and winter storms are more severe in this part of town. Blizzard conditions increase the number of calls and make travel more difficult, causing response times to be longer.

## **Highest Risks**

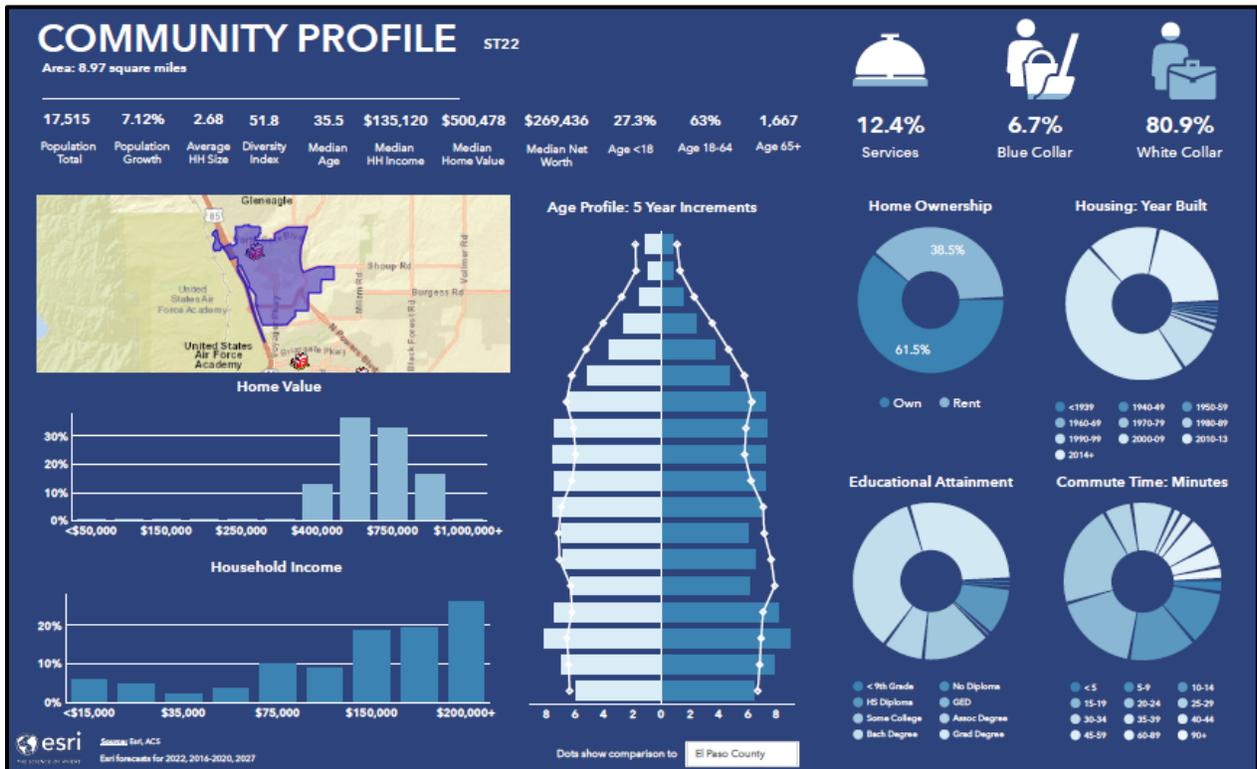
Traditions, 6010 Tutt Boulevard - This is an active adult retirement four story apartment building. There are multiple residents that are not mobile and cannot self-evacuate. It is sprinkled, but has no standpipes.

St. Francis Medical Center, 6001 E. Woodmen Road - This is a large full-service hospital. Many of the patients are non-ambulatory and evacuation would be problematic in the case of fire. Large medical equipment and hazardous materials stored on site could complicate a fire incident.

Peak View Behavioral Health, 7353 Sisters Grove – This is a psychiatric hospital with both outpatient and inpatient services. Over 100 patients are kept in locked down rooms. Evacuation in the case of fire would be problematic due to access to the facility, as well as the unknown behavior of the patients.

Powers Boulevard – This is one of the major north-south roadways through the city with heavy traffic at high speeds. These conditions pose several different hazards. There is a risk to emergency responders attending an accident in the roadway. Multi-vehicle accidents and accidents with injuries and fatalities are common and are made more severe during winter weather. Any incidents on this roadway restrict traffic and cause major back-ups and delay.

## Fire Station 22 – 711 Copper Center Parkway



### General Description

Fire Station 22 serves the northernmost area of the city. It is bordered to the west by the United States Air Force Academy (USAFA) property and regularly responds with neighboring agencies Black Forest Fire Department, Monument Fire District, and USAFA Fire Department. There is a large residential population consisting of upper middle to upper class residents. The homes tend to be newer and larger than in other areas of the city.

Several large occupancies reside in the southern portion of this district, including New Life Church, Pikes Peak Community College, Compassion International, ENT Federal Credit Union Headquarters, Scheels Sporting Goods, Bass Pro Shop, and Progressive Insurance. Major roadways include Interstate 25, Highway 83, Voyager Parkway, and Interquest Parkway. North Powers Boulevard will eventually extend through the Flying Horse residential community and connect with I-25. Waterways include Black Squirrel Creek and Kettle Creek.

The Farm is a residential community of over 500 homes with a 130-acre open space. This open space has mixed vegetation and presents a significant WUI risk to the neighborhood. In 2022, a wind driven fire called the “Silver Charm Fire,” burned 17 acres, and forced over 500 homes to evacuate. Fortunately, no lives or homes were lost. Access to the open space can be challenging for fire personnel due to rugged terrain and thick vegetation.

There are several entertainment/recreation type properties in the district. Each have their own unique properties and have the capacity for large numbers of people to be present

- Magnum Shooting Center, 13372 Meadowgrass Drive – Indoor pistol and rifle shooting range, 30-yard and 100-yard lanes with a large attached retail area.
- iFly Indoor Skydiving, 281 Kaycee Case Place – Indoor skydiving center which uses large fans that require refrigerant to keep cool.
- Overdrive Raceway, 196 Spectrum Loop – 2-story indoor electric go-cart track; go cart speeds can reach 45 MPH.
- Air City 360, 225 Spectrum Loop – Indoor activity center includes trampolines, bounce houses, climbing walls, and an air coaster.
- Top Golf, 165 Spectrum Loop – Golf driving range and sports bar/restaurant.

### **Highest Risks**

New Life Church/World Prayer Center, 11025 Voyager Parkway – This facility is considered a “mega-church” with a main sanctuary seating capacity of 8,000 and a smaller sanctuary for youth of 1,500. The church has an annual holiday production that involves pyrotechnics inside the building. The large number of people in the building poses a significant life hazard in the case of either fire or active shooter.

Liberty Heights Senior Community, 12105 Ambassador Drive – This is a large senior care facility that provides independent and assisted living, memory care, and respite care. There is one entrance to the property through a secured gate. There are 173 units for independent and assisted living and another 62 units for memory and respite care. All buildings are sprinklered,

but many residents have limited mobility and evacuations would be problematic in the case of fire.

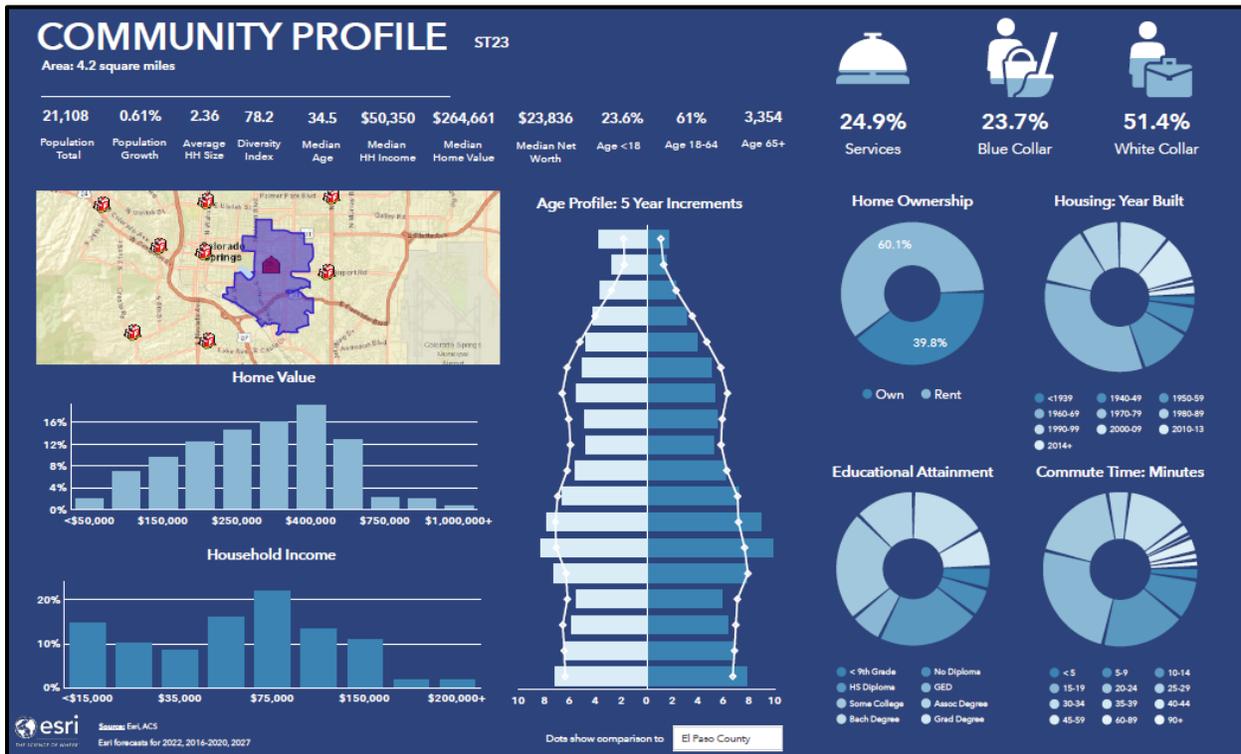
Information Technology Hubs – Three large occupancies include Federal Express at 350 Spectrum Loop, Walmart Data Center at 10625 Federal Drive, and Progressive Insurance at 12710 Voyager Parkway. These buildings have large square footage with data storage and a high volume of electronics, with one building having a large call center. These are a high fire hazard and moderate hazmat hazard.

Schools – Four large schools include Pikes Peak Community College at 11195 Interquest Parkway, The Classical Academy North at 975 Stout Road, The Classical Academy East at 12201 Cross Peak View, and Discovery Canyon at 1810 North Gate Boulevard. All have large daytime populations and represent a high life hazard and maximum EMS hazard.

Hotels – Four large hotels include Great Wolf Lodge at 9494 Federal Drive, Hampton Inn at 1307 Republic Drive, Residence Inn at 9805 Federal Drive, and Drury Inn at 1170 Interquest Parkway. These are a high life hazard and a maximum EMS hazard.

Intersection of Voyager Parkway and Interstate 25, On/Off Ramp – During heavy rain, this intersection has significant flooding due to poor drainage causing numerous responses to this location for trapped occupants in vehicles.

## Fire Station 23 – 375 Printers Parkway



### General Description

Fire Station 23 began operations with a single engine company on March 24, 2020. It covers the Knob Hill neighborhood and the area just to the southeast. The district has a high population of low-income residents as well as a high concentration of elderly housing/nursing facilities and doctor’s offices. The inventor Nikola Tesla's wireless power experimental station was located on Knob Hill at a site near the current Kiowa and Foote Streets, between the Colorado School for the Deaf and Blind and the Union Printers' Home. It was built and operated in 1899 and was torn down in 1904.

The Union Printers Home is a historic building that was built in this district in 1892. It was most recently used as an elderly care facility. In 1950, with a population of 3,600, Knob Hill was annexed into Colorado Springs and became the Knob Hill neighborhood. Today it has a population over 20,000 and has one of the fastest growing alarm loads in the city.

This district had the most working structure fires in the city during 2021. The mean and median incomes within the district are below the US poverty line. An estimated 35% of the district population is of Hispanic origin and there is a significant Spanish only speaking segment.

### **Highest Risks**

Pikes Peak Towers, 1912 Eastlake Boulevard – This is a 15-story high-rise senior living apartment building. Many of the residents have limited mobility and the building is not equipped with fire sprinklers. As an apartment occupancy, there are very few on-site staff members to assist with evacuations.

Medallion East, 1719 E Bijou Street - This is a 14-story high-rise post-acute rehabilitation and senior living facility. Small elevators do not allow for an ambulance stretcher to reach above the 4th floor also making evacuation difficult.

Platte Avenue - There are many industrial businesses along this area to include auto repair shops, marijuana grow warehouses, and independent furniture stores. There is also a high volume of mixed occupancies around this area.

Memorial Park and Prospect Lake – Home to a large variety of different athletic facilities, including the US Olympic Velodrome, a 10,000 square foot center dedicated to cycling that is open to the public. On its grounds, is one of the largest skateparks in Colorado, an indoor ice-skating rink, 15 football fields, 12 tennis courts, and a swimming beach that is open to a variety of water sports. The park is also home to the IAFF Fallen Firefighter, Peace Officer, and Veteran’s Memorials. The park frequently hosts community events drawing large crowds from outside of the community including hot air balloon launches and firework shows.

High Occupancy Event Centers – The district has several event centers including The Black Sheep (2106 E Platte Avenue) and Stargazer’s Theater and Event Center (10 S Parkside Drive).

## ***Community Feedback (2B.7, 2D.10, 3B.2, 3B.3, 3B.4, 3B.6)***

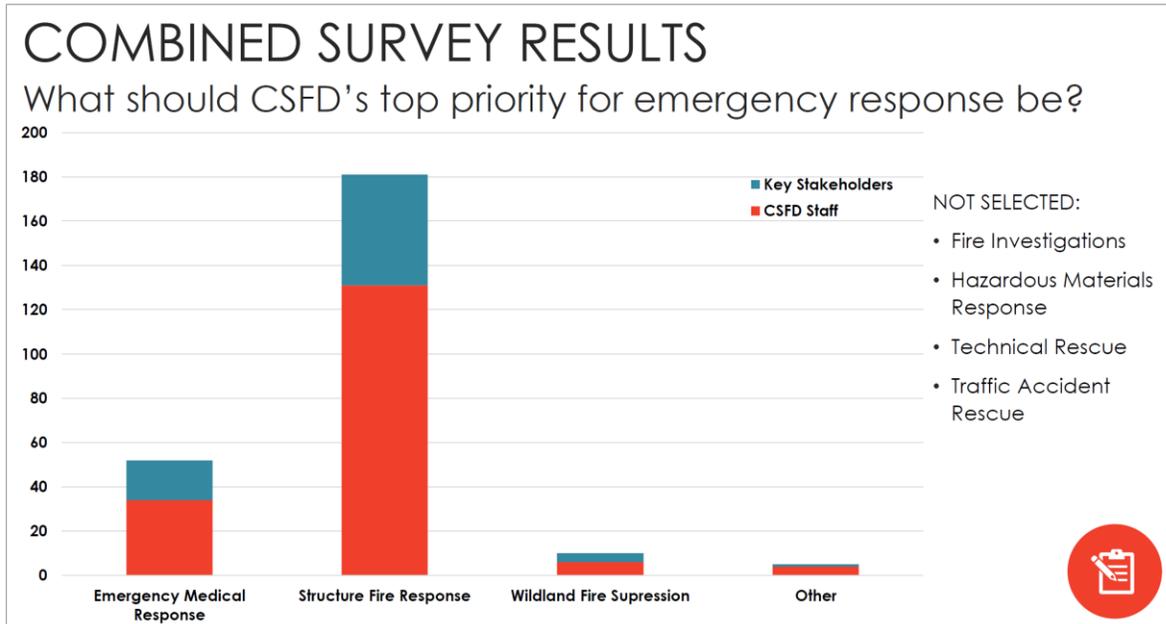
The CSFD recognizes that community feedback is an important factor for evaluating the department's ability to meet its goals, objectives, and community expectations. These expectations have been regularly defined through the strategic planning process as well as through input provided from both external and internal stakeholder surveys. Understanding the needs and expectations of the community enables the department to focus on areas which have been identified as deficient or in need of improvement.

In 2021, the CSFD created the CRA Steering Committee to solicit community expectations, community concerns, and its prioritization of the department's programs and services. Survey questions were developed and presented to both internal and external stakeholders.

The internal survey included sworn and civilian personnel from all divisions within the department. In total, 532 surveys were sent successfully, and 164 responses were received (118-sworn, 46-civilian, 31% response rate). The external survey was extended to other fire agencies, community law enforcement, community business, building and construction, El Paso County government, City of Colorado Springs City Council, community advocacy and non-profit groups, local hospitals and healthcare, public health, K-12 schools, and utilities. A total of 447 surveys were sent successfully and 73 responses were received (16% response rate). The highlights are summarized below:

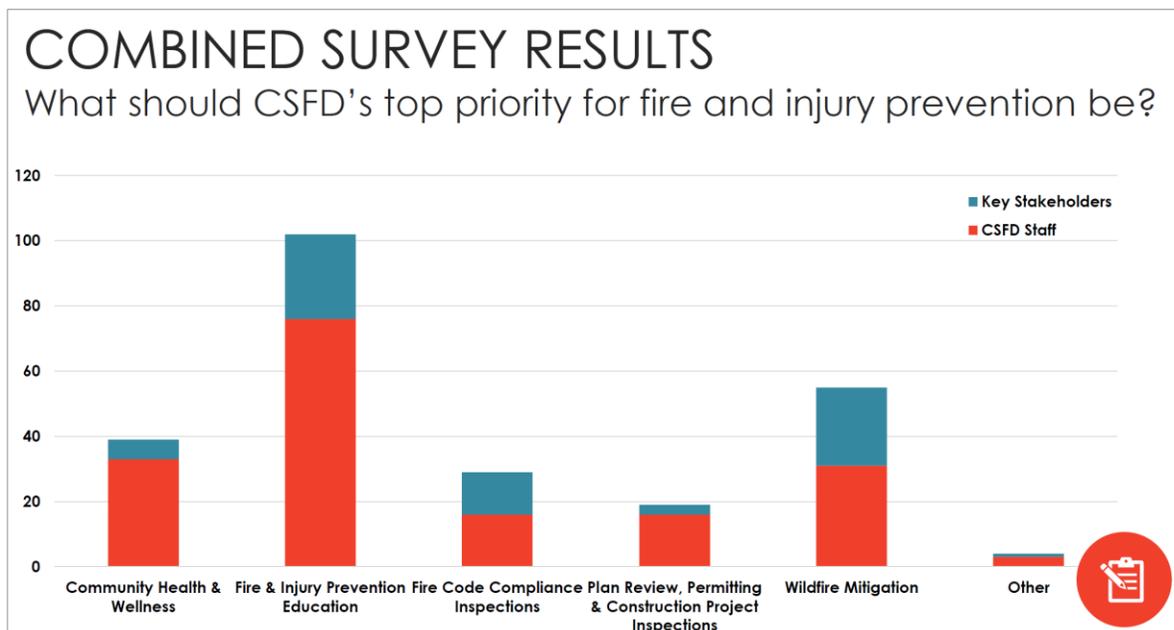
**Top Priorities for Emergency Response**

**Structure Fire Response – 49%      Emergency Medical Response – 29%**



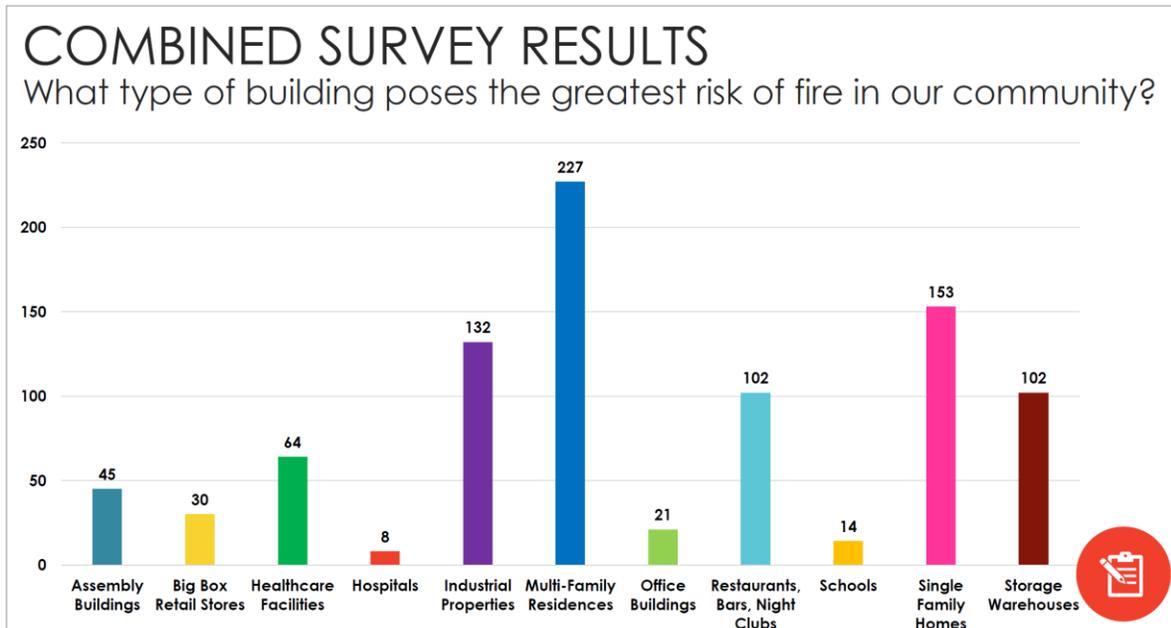
**Top Priorities for Fire and Injury Prevention**

**Fire & Injury Prevention Education – 33%      Wildfire Mitigation – 23%**



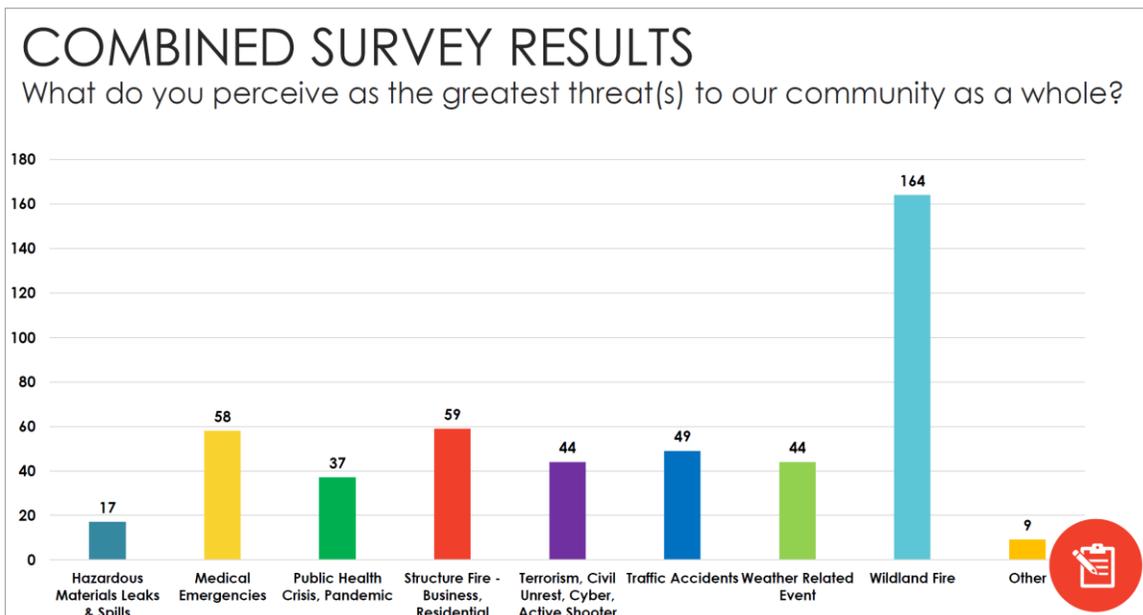
## Top Building Type Posing the Greatest Risk of Fire

**Multi-family Residences – 25%**    **Industrial Properties – 15%**



## Top Threats to the Community

**Wildland Fire – 34%**    **Structure Fire (business/residential) – 12%**



## ***Program Goals and Objectives (3A.1, 3A.2, 3B.1, 3B.2, 3B.5)***

The Colorado Springs Fire Department Strategic Plan summarizes the department's key goals and objectives for the years 2020-2024. Those goals and objectives guide the department's efforts to fulfill its mission statement and provide vital services to the community. In developing the CSFD Strategic Plan, the CSFD evaluated status through review of statistical abstract reports and anticipated growth changes. Those factors were then used to establish goals and objectives and to ensure the strategic plan aligned with the city's strategic plan. Upon its completion, the Fire Chief submitted the plan to the mayor of Colorado Springs.

The Strategic Plan includes five goals and a total of 18 objectives designed to help implement the goals. Measurable elements of time, quantity and quality are identified throughout the goals and objectives, all of which also correlate to the department's mission, vision, and values, which are also stated in the Strategic Plan. The plan is posted electronically in several locations on both the CSFD internal and external websites. In pursuit of continuous improvement, the CSFD has established a Strategic Planning Committee to assess the department's progress towards meeting the goals outlined in the CSFD Strategic Plan 2020-2024. Committee members include representatives from all areas of the department; meetings occur not less than two times per year. The five major goals are:

1. Pursue innovative methods of addressing emerging and on-going fiscal challenges.
2. Develop and support a diverse, inclusive, and well-trained workforce.
3. Reduce risk to our community through mitigation, education, and response.
4. Deliver appropriate resources based on a risk-based response model.
5. Create an enhanced listening and learning organization.

Each goal is delineated to specific, measurable, attainable, realistic, and time-sensitive objectives. In addition, the department completes annual appraisals that measure effective delivery and outcomes for all department sections, committees, and programs. Appraisals include program specific SWOT (strengths, weaknesses, opportunities, and threats) analysis, as well as current and upcoming year goals and objectives, goals met, budgetary use and needs. The criteria and expected outcomes vary depending on the individual goals.

## *Current Deployment and Performance (2C)*

### **Fixed Assets (Facilities) – Distribution**

Distribution is the geographic location of resources to most effectively provide first due response to emergency incidents. The CSFD deploys its mobile emergency response resources from 23 station locations, which are distributed among four battalions (Figure 8, page 117). The placement of fire stations is based on covering every area of the city in a consistent manner. While stations are located rather uniformly across the department’s response area, several have a higher call load than others. By reviewing the percentage of total calls handled by each fire station district, the areas of heavier incident volume can be more readily identified.

	<i># Of Calls 2021</i>	<i>% Of Total Calls 2021</i>	<i># Of Calls 2016</i>	<i>% Of Total Calls 2016</i>
Station 1	7660	10%	5432	8.14%
Station 2	2573	3%	2393	3.59%
Station 3	2943	4%	2280	3.42%
Station 4	6438	8%	5553	8.32%
Station 5	2815	4%	3136	4.70%
Station 6	3312	4%	2896	4.34%
Station 7	4783	6%	5859	8.78%
Station 8	7794	10%	5258	7.88%
Station 9	5086	6%	4090	6.13%
Station 10	5727	7%	4160	6.24%
Station 11	3743	5%	3934	5.90%
Station 12	1399	2%	1330	1.99%
Station 13	1725	2%	1857	2.78%
Station 14	2839	4%	2406	3.61%
Station 15	1845	2%	1372	2.06%
Station 16	909	1%	674	1.01%
Station 17	4244	5%	3053	4.58%
Station 18	743	1%	667	1.00%
Station 19	2769	3%	1231	1.85%
Station 20	1950	2%	2015	3.02%
Station 21	2119	3%	1111	1.67%
Station 22	1147	2%	848	1.27%
Station 23	4653	6%	NA	NA
<b>TOTAL</b>	<b>79216</b>		<b>61555</b>	



**Mobile Assets – Concentration**

The CSFD strives for an equitable level of service to everyone in the community, regardless of location, so the effective response force (ERF) can arrive on scene within the established timeframes. This is accomplished by distributing its resources proportionately to the population and by historical trends in calls for service. This results in providing similar service to every area of the city. There are specialized resources that are not practical to have in every fire station and these are placed according to historical and/or potential needs. One example is the department’s wildland resources, which are placed in stations in and adjacent to the WUI, where they are more likely to be needed.

The department staffs 23 fire stations with 128 personnel on duty each day. Staffing is spread across 23 engine companies, six truck companies, one hazardous materials vehicle, one rescue vehicle, and four battalion chiefs.

Fire Station 1	Engine 1 Truck 1 Battalion 1 Chief
Fire Station 2	Engine 2 Tactical Emergency Medical Support (TEMS) 2
Fire Station 3	Engine 3
Fire Station 4	Engine 4 Truck 4 Wildland 4
Fire Station 5	Engine 5 Brush 5
Fire Station 6	Engine 6
Fire Station 7	Engine 7 Brush 7
Fire Station 8	Engine 8 Truck 8 Battalion 2 Chief
Fire Station 9	Engine 9 Truck 9 Wildland 9
Fire Station 10	Engine 10 Truck 10 Brush 10
Continued next page	

Fire Station 11	Engine 11 Brush 11
Fire Station 12	Engine 12 Brush 12
Fire Station 13	Engine 13 Brush 13
Fire Station 14	Engine 14 Hazmat 14
Fire Station 15	Engine 15 Brush 15 Air 15
Fire Station 16	Engine 16 Brush 16
Fire Station 17	Engine 17 Rescue 17 Brush 17
Fire Station 18	Engine 18 Brush 18
Fire Station 19	Engine 19 Truck 19 Brush 19 Battalion 3 Chief
Fire Station 20	Engine 20 Brush 20 Decon 20 Battalion 4 Chief/Shift Commander
Fire Station 21	Engine 21 Brush 21
Fire Station 22	Engine 22 Brush 22
Fire Station 23	Engine 23

### **Mutual and Automatic Aid**

The CSFD maintains working relationships with many neighboring agencies as outlined in mutual aid and automatic aid agreements. These agreements include services for emergency medical incidents, fire suppression, hazardous materials mitigation, rescue, and fire prevention functions. A partial list of the fire agencies with which the CSFD maintains agreements is below.

- El Paso County
- Colorado Springs Utilities
- Tri-Lakes Fire Protection District
- Fort Carson Army Post Fire Department
- Peterson Air Force Base Fire Department

- Schriever Air Force Base Fire Department
- Cheyenne Mountain (NORAD) Air Force Station Fire Department
- United States Air Force Academy Fire Department
- Black Forest Fire and Rescue
- Broadmoor Fire Protection District
- Cascade Volunteer Fire Department
- Green Mountain Falls/Chipita Park Fire Department
- Cimarron Hills Fire Protection District
- Colorado Centre Metro District
- Falcon Fire Protection District
- Fountain Fire Department
- Manitou Springs Fire Department
- Northeast Teller County Fire Protection District
- Security Fire Department
- Southwestern Highway 115 Fire Protection District
- Stratmoor Hills Fire Department
- Wescott Fire Protection District
- Woodmen Valley Fire Protection District

#### **Critical Task Analysis (2C.4)**

Success at the scene of any emergency is measured by what occurs after the fire department arrives. After life safety has been considered, the remaining priorities include exposure protection, control and containment, ventilation, control, extinguishment, salvage (property conservation), overhaul, and investigation.

Critical tasks are identified for each risk category including structure fire, medical, hazmat, technical rescue, and wildland fire. The critical task analysis provides a more defined list of necessary tasks and number of personnel assigned to each task. Individual tasks are identified in CSFD Operations Procedure Manual (OPM) documents and are validated using annual evaluations.

Fire Risk Category	Low	
Involvement	Car Fires, Dumpster Fires, Small Outside Structure Fires and Other Small Fires That Do Not Endanger Occupied Structures, Schools (K-12).	
Occupancy Classes	A-5, B (Sprinklered), E, H-4, U	
<i>Initial Response</i>		
1st Engine	Establish Command, Size-Up	1
	Pump Operator	1
	Attack Hoseline	2
	<b>TOTAL</b>	<b>4</b>

<i>SCHOOL (K-12) "Working Fire Compliment" Response Units</i>		
2nd Engine	Secondary Hoseline	2
	Interim Rapid Intervention Crew (IRIC)	2
3rd Engine	Support first two Engines	4
1st Truck	Forcible Entry/Primary Search	2
	Ventilation	2
2nd Truck	Forcible Entry/Primary Search	2
	Ventilation	2
3rd Truck	Rapid Intervention Crew (RIC)	4
1st Battalion Chief	Assume Command, Incident Safety Officer	1
Rescue	Rapid Intervention Crew (RIC) or assigned duties	4
Squad	Rehabilitation or assigned duties	2
Safety and Accountability Unit	Size-Up/Assess and Manage Incident Safety	2
	Accountability	2
2nd Battalion Chief	Division/Group or Assigned Duties	1
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
	<b>"Working Fire Compliment" Response Units Sub-Total</b>	<b>33</b>
	<b>GRAND TOTAL</b>	<b>37</b>

Fire Risk Category	Moderate	
Involvement	Sprinklered small to medium commercial occupancies, sprinklered multi-family residential, sprinklered single family residential, sprinklered business and assembly, large business.	
Occupancy Classes	A-4, I-3, I-4, F-2, R-2 (Sprinklered), R-4, S-2, M (Sprinklered)	
<i>Initial Response Units</i>		
1st Engine	Establish Command, Size-Up	1
	Pump Operator	1
	Attack Hoseline	2
2nd Engine	Back-up Hoseline	2
	Interim Rapid Intervention Crew (IRIC)	2

1st Truck	Forcible Entry/Primary Search	2
	Ventilation	2
2nd Truck	Rapid Intervention Crew (RIC)	4
1st Battalion Chief	Assume Command, Incident Safety Officer	1
<b>Initial Response Units Sub-Total</b>		<b>17</b>

<b>"Working Fire Compliment" Response Units</b>		
Rescue	Rapid Intervention Crew (RIC)	4
1st Squad	Rehabilitation or Assigned Duties	2
Safety/Accountability Unit	Size-Up/Assess and Manage Incident Safety	2
	Accountability	2
2nd Battalion Chief	Division/Group or Assigned Duties	1
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
<b>"Working Fire Compliment" Response Units Sub-Total</b>		<b>12</b>
<b>GRAND TOTAL</b>		<b>29</b>

Fire Risk Category	High	
Involvement	Assisted living facilities, large industrial/manufacturing, non-sprinklered single family residential, non-sprinklered assembly, large commercial/big box, non-sprinklered small/medium commercial	
Occupancy Classes	A-1, A-3, B (non-sprinklered), F-1, H-1, H-2, H-3, H-5, I-1, I-2, M (non-sprinklered), R-2, S-1	
<b>Initial Response Units</b>		
1st Engine	Establish Command, Size-Up	1
	Pump Operator	1
	Attack Hoseline	2
2nd Engine	Secondary Hoseline	2
	Interim Rapid Intervention Crew (IRIC)	2
3rd Engine	Support first two Engines	4
1st Truck	Forcible Entry/Primary Search	2
	Ventilation	2
2nd Truck	Forcible Entry/Primary Search	2
	Ventilation	2
3rd Truck	Rapid Intervention Crew (RIC)	4
1st Battalion Chief	Assume Command, Incident Safety Officer	1
<b>Initial Response Units Sub-Total</b>		<b>25</b>

<b>"Working Fire Compliment" Response Units</b>		
Rescue	Rapid Intervention Crew (RIC) or assigned duties	4
Squad	Rehabilitation or assigned duties	2
Safety/Accountability Unit	Size-up/Assess and Manage Incident Safety	2
	Accountability	2

<b>2nd Battalion Chief</b>	Division/Group or Assigned Duties	1
<b>Paramedic Lieutenant (73)</b>	Medical Group Supervisor or Assigned Duties	1
	<b>"Working Fire Compliment" Response Units Sub-Total</b>	<b>12</b>
	<b>GRAND TOTAL</b>	<b>37</b>

Fire Risk Category	Maximum	
Involvement	Non-sprinklered multi-family residential, non-sprinklered high-rise, Sprinklered high-rise, non-sprinklered assembly	
Occupancy Classes	A-2, R-1, R-2 (non-sprinklered)	
<b>Initial Response Units</b>		
<b>1st Engine</b>	Establish Command, Size-Up	1
	<b>*High Rise*</b> Fire Attack Group 1 (fire floor); recon, hoseline, standpipe operations, Fire Attack Group 1 Supervisor	3
	<b>*Non-High Rise*</b> Water Supply, Pump Operator, Attack Line	
<b>2nd Engine</b>	<b>*High Rise*</b> Lobby Control/Supervision, Water Supply to FDC, Fire Attack Group 1	4
	<b>*Non-High Rise*</b> Second attack line	
<b>3rd Engine</b>	<b>*High Rise*</b> Fire Attack Group 2 (floor above fire); Fire Attack Group 2 Supervisor, recon, hoseline, standpipe operations	4
	<b>*Non-High Rise*</b> Water Supply, Fire Attack/Back Up Line	
<b>4th Engine</b>	<b>*High Rise*</b> Fire Attack Group 2; second attack line, support hose operations	4
	<b>*Non-High Rise*</b> Water Supply, Fire Attack/Back Up Line	
<b>1st Truck</b>	<b>*High Rise*</b> Fire Attack Group 1; recon, search & rescue, Forcible Entry, Ventilation	4
	<b>*Non-High Rise*</b> Forcible entry, Search and Rescue, Ladder Rescue, Ventilation	
<b>2nd Truck</b>	<b>*High Rise*</b> Fire Attack Group 2; recon, search & rescue, Forcible Entry, Ventilation	4
	<b>*Non-High Rise*</b> Forcible entry, Search and Rescue, Ladder Rescue, Ventilation	
<b>3rd Truck</b>	Rapid Intervention Crew (RIC) or assigned duties	4
<b>1st Battalion Chief</b>	Assume Command, Incident Safety Officer	1
<b>2nd Battalion Chief</b>	Division Supervisor on fire floor or assist Command	1
<b>Fire Protection Engineer</b>	<b>*High Rise*</b> Building systems management, assigned to Lobby Control if required	1
	<b>Initial Response Units Sub-Total</b>	<b>31</b>

<b>"Working Fire Compliment" Response Units</b>		
<b>Rescue</b>	Rapid Intervention Crew (RIC) or assigned duties	4

<b>Squad</b>	Rehabilitation or Assigned Duties	2
<b>Safety/Accountability Unit</b>	Size-up/Assess and Manage Incident Safety	2
	Accountability	2
<b>Paramedic Lieutenant (73)</b>	Medical Group Supervisor or Assigned Duties	1
<b>"Working Fire Compliment" Response Units Sub-Total</b>		<b>11</b>
<b>GRAND TOTAL</b>		<b>42</b>

<b>EMS Risk Category</b>	<b>Low</b>	
<b>Involvement</b>	<b>Injured or ill patient without airway, breathing, circulatory problems and do not meet any additional risk categories</b>	
<b>Initial Response</b>		
<b>1st Engine</b>	ALS Intervention if necessary	1
	Patient Information	1
	Vital signs, airway management, IV set-up, oxygen, provide patient care	2
	<b>TOTAL</b>	<b>4</b>

<b>EMS Risk Category</b>	<b>Moderate</b>	
<b>Involvement</b>	<b>ST-elevated myocardial infarction (STEMI), severe respiratory distress, cerebrovascular accident, traumatic brain injury, time sensitive issues, traffic accident not including trapped patients, drowning, and any patient meeting trauma center or other specialized medical facility criteria. ALS Required.</b>	
<b>Initial Response</b>		
<b>1st Engine</b>	ALS Intervention if necessary	1
	Patient Information	1
	Vital signs, airway management, IV set-up, oxygen, provide patient care	2
	<b>TOTAL</b>	<b>4</b>

EMS Risk Category	High	
Involvement	High mechanism of injury (rollover TA, car vs pedestrian, motorcyclist, etc.), and drowning	
<i>Initial Response</i>		
1st Engine	Establish command, perform size-up	1
	Triage	1
	Patient Care, Vital Signs, Airway Management, C-Spine precautions	2
1st Truck	Safety	1
	Stabilization, Extrication or Rescue	3
1st Battalion Chief	Assume Command	1
<b>Initial Response Units Sub-Total</b>		<b>9</b>

<i>"Working Trapped Compliment" Response Units</i>		
Rescue	Extrication and Rescue	4
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
<b>Working Compliment Units Sub-Total</b>		<b>5</b>
<b>GRAND TOTAL</b>		<b>14</b>

EMS Risk Category	Maximum	
Involvement	Multi-patient incident with multiple trauma patients, pandemic events, active shooter events	
<i>Initial Response</i>		
1st Engine	Establish command, perform size-up, declaration of MCI/Active Shooter/Etc./Request Additional Units	1
	Triage	2
	Staging Area Manager	1
<b>Initial Response Units Sub-Total</b>		<b>4</b>

<i>"MCI Compliment" Response Units</i>		
2nd Engine	Patient Care, Vital Signs, Airway Management, C-Spine precautions	4
Squad	Patient Care, Vital Signs, Airway Management, C-Spine precautions	2
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
1st Battalion Chief	Assume Command	
<b>Working Compliment Units Sub-Total</b>		<b>7</b>
<b>MCI GRAND TOTAL</b>		<b>11</b>

<i>"Active Shooter Compliment" Response Units</i>		
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2nd Engine	Patient Care, Vital Signs, Airway Management, C-Spine precautions	4
TEMS	TEMS Group Supervisor	1
	EMT-Paramedic; provide patient care	2
	EMT-Basic; provide patient care	2
Squad	Patient Care, Vital Signs, Airway Management, C-Spine precautions	2
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
1st Battalion Chief	Assume Command	1
<b>Working Compliment Units Sub-Total</b>		<b>13</b>
<b>ACTIVE SHOOTER GRAND TOTAL</b>		<b>17</b>

<b>"Pandemic Event Compliment" Response Units</b>		
HAZMAT	Extrication and Rescue	4
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
1st Battalion Chief	Assume Command	1
<b>Working Compliment Units Sub-Total</b>		<b>6</b>
<b>PANDEMIC EVENT GRAND TOTAL</b>		<b>10</b>

HAZMAT Risk Category	<b>LOW</b>	
Involvement	Residential CO alarms, small fuel spill containments, unknown hazmat investigations. Entry into a toxic environment not required. Specialized hazmat equipment and technician level/skill not required.	
<b>Initial Response</b>		
1st Engine	Establish Command/Perform Size-Up	1
	Investigation	2
	Safety	1
<b>TOTAL</b>		<b>4</b>

HAZMAT Risk Category	<b>Moderate</b>	
Involvement	Larger flammable liquid spills, natural gas leaks, unknown substance spill. Air monitoring and possible other specialized hazmat equipment required. Operations/Technician level knowledge/skills required.	
<b>Initial Response</b>		
1st Engine	Establish Command/Perform Size-Up	1
	Hazard Mitigation	2
	Safety/Emergency Decontamination	1
1st Hazmat Unit	Operations	1
	Research	1
	Hazard Mitigation	2

<b>1st Battalion Chief</b>	Assume Command	1
	<b>TOTAL</b>	<b>9</b>

<b>HAZMAT Risk Category</b>	<b>High</b>	
<b>Involvement</b>	<b>Large hazardous materials spills or releases, Technician level entry required.</b>	
<i>Initial Response</i>		
<b>1st Engine</b>	Establish Command/Perform Size-Up	1
	Hazard Mitigation	2
	Safety/Emergency Decontamination	1
<b>1st Hazmat Unit</b>	Hazmat Group Supervisor	1
	Research	1
	Entry Team/Hazard Mitigation	2
<b>Decon Unit</b>	Technical decontamination	3
	Medical Monitoring	1
<b>2nd Hazmat Unit</b>	Support Entry Team Operations	4
<b>2nd Engine</b>	Emergency Medical Care or Assigned Duties	4
<b>1st Battalion Chief</b>	Assume Command	1
<b>Paramedic Lieutenant (73)</b>	Medical Group Supervisor or Assigned Duties	1
	<b>TOTAL</b>	<b>22</b>

<b>HAZMAT Risk Category</b>	<b>Maximum</b>	
<b>Involvement</b>	<b>Large uncontained quantities of hazardous materials affecting a large spatial area. Critical tasks exceed department's resources to mitigate. Includes WMD.</b>	
<i>Initial Response</i>		
<b>1st Engine</b>	Establish Command/Perform Size-Up/Hazard Identification	1
	Medical Triage	1
	Safety/Emergency Decontamination	2
<b>1st Hazmat Unit</b>	Hazmat Group Supervisor	1
	Research	1
	Entry Team/Hazard Mitigation	2
<b>Decon Unit</b>	Technical decontamination	3
	Medical Monitoring	1
<b>2nd Hazmat Unit</b>	Support Entry Team Operations	4
<b>2nd Engine</b>	Emergency Medical Care or Assigned Duties	4
<b>1st Battalion Chief</b>	Assume Command	1
<b>2nd Battalion Chief</b>	Internal Stakeholder and Interagency Notification	1
<b>Paramedic Lieutenant (73)</b>	Medical Group Supervisor or Assigned Duties	1
	<b>TOTAL</b>	<b>23</b>

Extrication Risk Category	LOW	
Involvement	Non-technical extrications such as vehicle lockouts with occupants inside (child or pet).	
<i>Initial Response</i>		
1st Truck	Scene Size Up	1
	Rescue Operations	2
	Safety	1
	<b>TOTAL</b>	<b>4</b>

Extrication Risk Category	Moderate	
Involvement	Extrications requiring hand tools, but not requiring any specialized rescue tools or training beyond the capabilities of a standard engine company.	
<i>Initial Response</i>		
1st Engine	Establish Command/Scene Size Up	1
	Rescue Operations	2
	Safety	1
1st Truck	Support Rescue Operations	4
	<b>TOTAL</b>	<b>8</b>

Extrication Risk Category	High	
Involvement	Extrications requiring power driven rescue tools, but not requiring any specialized rescue tools or training beyond the capabilities of a standard truck company.	
<i>Initial Response</i>		
1st Engine	Establish Command/Perform Size-Up	1
	Patient Care if required	2
	Safety Line	1
1st Truck	Perform Size-Up/Safety/Scene Control	1
	Rescue Operations	3
Rescue	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue operations	2
1st Battalion Chief	Assume Command	1
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
	<b>TOTAL</b>	<b>14</b>

Extrication Risk Category	Maximum	
Involvement	Extrications involving complex extrication tasks and/or potential multiple extrications, rail, aircraft, large truck, heavy equipment, etc. Requires specialized skills and extrication equipment.	
<i>Initial Response</i>		
1st Engine	Establish Command/Perform Size-Up	1
	Hazard Mitigation/rescue	2
	Emergency Decontamination/safety	1
1st Truck	Perform Size-Up/Safety/Scene Control	1
	Rescue Operations or assigned duties	3
Rescue	Perform Size-Up/Rescue Group Supervisor	1
	Establish Safety Zone	1
	Rescue Operations	2
2nd Truck	Perform size-up, assigned as needed	4
HazMat	Size-Up/Assess Hazmat Threat	2
	Safety	1
	Accountability	1
1st Battalion Chief	Assume Command	1
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
<b>TOTAL</b>		<b>22</b>

Low/High Angle Risk Category	LOW	
Involvement	Low angle rescue without any medical needs, victim is accessible by foot, and does not require the use of ropes. Generally, within a quarter to half mile from a road or trail head.	
<i>Initial Response</i>		
1st Truck	Scene Size Up	1
	Rescue Operations	2
	Safety	1
<b>TOTAL</b>		<b>4</b>

Low/High Angle Risk Category	Moderate	
Involvement	Low angle rescue that could involve BLS medical care, victim is accessible by foot, but requires a single rope system for extrication, but not requiring any tools or training beyond the capability of a standard truck company. Generally, within a quarter to half mile from a road or trail head.	
<i>Initial Response</i>		
	Establish Command/Perform Size Up	1
	Patient access and emergency medical care	2

1st Engine	Safety	1
1st Truck	Perform Size-Up/Scene Control	1
	Rescue operations	3
<b>TOTAL</b>		<b>8</b>

Low/High Angle Risk Category	High	
Involvement	Low to high angle rescue that could involve BLS medical care, victim is not accessible without use of ropes. The environment requires a main and belay rope system for extrication, but not requiring any tools or training beyond the capabilities of a standard truck company.	
<i>Initial Response</i>		
1st Engine	Establish Command/Perform Size Up	1
	Patient access and emergency medical care	2
	Safety	1
1st Truck	Perform Size-Up/Scene Control	1
	Victim/patient rescue	3
Rescue	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue Operations	2
1st Battalion Chief	Assume Command	1
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
<b>TOTAL</b>		<b>14</b>

Low/High Angle Risk Category	Maximum	
Involvement	High angle rescue that could involve ALS medical care, victim is not accessible without the use of ropes. The environment requires a main and belay rope system for extrication and the victim is at an excessive height or distance and involves specialty rescue equipment, or possible nighttime operations.	
<i>Initial Response</i>		
1st High Angle Unit	Establish Command/Perform Size-Up/Rescue Group Supervisor	1
	Establish perimeter	1
	Victim/patient rescue	2
2nd High Angle Unit	Perform size-up, assigned as needed	4
Rescue	Perform size-up, assigned as needed	4
1st Truck	Perform size-up, assigned as needed	4
1st Battalion Chief	Assume Command	1
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
<b>TOTAL</b>		<b>18</b>

Swiftwater Risk Category	Low	
Involvement	Non-technical rescues such as standing water to shallow slow-moving water in natural historic waterways that is not rising.	
<i>Initial Response</i>		
1st Truck	Perform size up, scene control	1
	Rescue Operations	2
	Safety	1
	<b>TOTAL</b>	<b>4</b>

Swiftwater Risk Category	Moderate	
Involvement	Rising water that exceeds normal flows, but does not exceed the ability of standard truck company to perform shallow water crossing.	
<i>Initial Response</i>		
1st Engine	Establish Command, perform size-up	1
	Up Stream Spotters	2
	Safety	1
1st Truck	Perform Size-Up/Rescue operations	4
Rescue	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue operations	2
1st Battalion Chief	Assume Command	1
	<b>TOTAL</b>	<b>13</b>

Swiftwater Angle Risk Category	High	
Involvement	Rising water with velocity that creates sufficient hydrolic force to exceed the abilities to perform shallow water crossings. The environment allows the victim to be reached with the use of aerial device.	
<i>Initial Response</i>		
1st Engine	Establish Command, perform size-up	1
	Up Stream Spotters	2
	Safety	1
1st Truck	Perform Size-Up/Scene Control	1
	Aerial device operation	1
	Victim/patient rescue	2
Rescue	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue Operations	2
Utility 17 w/ Trailer and Personnel	Perform size-up, assigned as needed	4
1st Battalion Chief	Assume Command	1

Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
	<b>TOTAL</b>	<b>18</b>

Swiftwater Angle Risk Category	Maximum	
Involvement	Swift moving and/or rising water with dynamic flow characteristics that require specialized equipment and technician level knowledge/skills.	
<i>Initial Response</i>		
1st Engine	Establish Command, perform size-up	1
	Up Stream Spotters	2
	Safety	1
1st Truck	Size Up, scene control, assigned as needed	4
Rescue	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue Operations	2
Utility 17 w/ Trailer and Personnel	Perform size-up, assigned as needed	4
2nd Engine	Downstream/upstream safety, assigned as needed	4
1st Battalion Chief	Assume Command	1
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
	<b>TOTAL</b>	<b>22</b>

Confined Space Category	Low	
Involvement	Non-technical rescues such as elevator rescues.	
<i>Initial Response</i>		
1st Truck	Perform size up, scene control	1
	Hazard mitigation/rescue	2
	Safety	1
	<b>TOTAL</b>	<b>4</b>

Confined Space Risk Category	Moderate	
Involvement	Space is configured so that there is no entanglement hazard, access opening is large enough the rescuer can pass through with room to spare when PPE is worn as recommended by the manufacturer, space can accommodate two or more rescuers in addition to the victim and does not require any tools or training beyond the capabilities of a standard truck company.	
<i>Initial Response</i>		
1st Engine	Establish Command, perform size-up	1
	Hazard mitigation/rescue	2
	Emergency decontamination, safety	1

<b>1st Truck</b>	Perform Size-Up, Hazard mitigation/rescue operations	4
<b>Rescue</b>	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue operations	2
<b>1st Battalion Chief</b>	Assume Command	1
<b>TOTAL</b>		<b>13</b>

Confined Space Risk Category	High	
Involvement	Space is configured so that there is no entanglement hazard, access opening is large enough the rescuer can pass through with room to spare when PPE is worn as recommended by the manufacturer, space may only accommodate one rescuer in addition to the victim, and specialized equipment may be required to monitor or control hazards.	
<i>Initial Response</i>		
<b>1st Engine</b>	Establish Command, perform size-up	1
	Hazard mitigation/rescue	2
	Emergency decontamination, safety	1
<b>1st Truck</b>	Perform Size-Up, scene control and assigned as needed	4
<b>Rescue</b>	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue operations	2
<b>Utility 17 w/ Trailer and Personnel</b>	Perform size-up, assigned as needed	4
<b>1st Battalion Chief</b>	Assume Command	1
<b>Paramedic Lieutenant (73)</b>	Medical Group Supervisor or Assigned Duties	1
<b>TOTAL</b>		<b>18</b>

Confined Space Risk Category	Maximum	
Involvement	Space presents entanglement hazards, the access opening is restrictive, the victim cannot be seen from the access point, and specialized equipment and technician level knowledge/skill are required	
<i>Initial Response</i>		
<b>1st Engine</b>	Establish Command, perform size-up	1
	Hazard mitigation/rescue	2
	Emergency decontamination, safety	1
<b>1st Truck</b>	Perform Size-Up, scene control and assigned as needed	4
<b>Rescue</b>	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue operations	2

<b>Utility 17 w/ Trailer and Personnel</b>	Perform size-up, assigned as needed	4
<b>1st Battalion Chief</b>	Assume Command	1
<b>Hazmat</b>	Safety and Accountability	4
<b>Air Unit</b>	Replenish SCBA and air as needed	4
<b>Paramedic Lieutenant (73)</b>	Medical Group Supervisor or Assigned Duties	1
	<b>TOTAL</b>	<b>26</b>

<b>Structural Collapse Category</b>	<b>LOW</b>	
<b>Involvement</b>	Vehicle into a building without affecting any structure members, ie. Picture windows, glass doors, etc.	
<i>Initial Response</i>		
<b>1st Truck</b>	Perform size up, scene control	1
	Hazard mitigation/rescue	2
	Safety	1
	<b>TOTAL</b>	<b>4</b>

<b>Structural Collapse Risk Category</b>	<b>Moderate</b>	
<b>Involvement</b>	Building with damage that has affected structural members but has not caused any localized collapse. Low possibility of collapse, will require spot shores to stabilize, but does not exceed the training or abilities of a standard truck company.	
<i>Initial Response</i>		
<b>1st Engine</b>	Establish Command, perform size-up	1
	Hazard mitigation/rescue	2
	Emergency decontamination, safety	1
<b>1st Truck</b>	Perform size-up, hazard mitigation, rescue, shoring	4
<b>Rescue</b>	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue operations	2
<b>1st Battalion Chief</b>	Assume Command	1
	<b>TOTAL</b>	<b>13</b>

Structural Collapse Risk Category	High	
Involvement	Building with localized collapse, structural members are involved. High possibility of secondary collapse. Will require specialized equipment and technician level knowledge/skills.	
<i>Initial Response</i>		
1st Engine	Establish Command, perform size-up	1
	Hazard mitigation/rescue operations	2
	Emergency decontamination, safety	1
1st Truck	Perform size-up, assigned as needed	4
Rescue	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue operations	2
Utility 17 w/ Trailer and Personnel	Size up, scene control, assigned as needed	4
1st Battalion Chief	Assume Command	1
Paramedic Lieutenant (73)	Medical Group Supervisor or assigned Duties	1
	<b>TOTAL</b>	<b>18</b>

Structural Collapse Risk Category	Maximum	
Involvement	Building or multiple buildings with partial or complete collapse. High possibility of secondary collapse. Will require specialized equipment and technician level knowledge/skills.	
<i>Initial Response</i>		
1st Engine	Establish Command, perform size-up	1
	Hazard mitigation/rescue operations	2
	Emergency decontamination, safety	1
1st Truck	Perform size-up, scene control and assigned as needed	4
Rescue	Perform size-up, Rescue Group Supervisor	1
	Establish safety zone	1
	Rescue operations	2
1st Battalion Chief	Assume Command	1
Utility 17 w/ Trailer and Personnel	Perform size-up, assigned as needed	4
Safety and Accountability Unit	Safety and Accountability	4
Air Unit	Replenish SCBA and air as needed	4
Paramedic Lieutenant (73)	Medical Group Supervisor or Assigned Duties	1
	<b>TOTAL</b>	<b>26</b>

## **Outlier Values - Data Analysis and Statistical Limits**

For distribution and concentration factor analysis, CSFD has established thresholds for statistical outliers. All response data is gathered, and incident data is then added to the data set. All data for duplicate, non-emergent, calls not otherwise classified, and inapplicable units are excluded from the analysis. Only records that have complete call processing, turnout, travel, and total response time records are used. Any response that exceeds the limits is assumed to be a data error. This assumption is based on the premise that the upper limit should include all normal responses.

Responses are only included if they meet all criteria summary below:

- Unit – Engine, truck, rescue, wildland, brush truck, hazmat, or squad (prior to 2021)
- Arrival – There is an associated arrival time
- Response – Emergent
- Call Handling Time – Incident is only included if the call handling time is less than 20 minutes
- Turnout Time – Incident is only included if the turnout time is less than eight minutes
- Travel Time – Incident is only included if the travel time is less than 25 minutes
- Total Response Time – Incident is only included if the total response time is less than 30 minutes
- Utilization Time – Incident is only included if the total utilization time is less than 24 hours

## **Response Time Performance (2C.5)**

The Colorado Springs Fire Department has identified the total response time components as call handling, turnout time, and travel, which comprise the total response time. The call handling time benchmark is 90 seconds and was determined in accordance with NFPA 1710: “Standard for the Organization and Deployment of Fire Suppression Operations”, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. The CSFD turnout time benchmark is 90 seconds and is defined as the interval between when audible alarm is received in the station and when the unit begins its travel to the incident. The total response time is measured by combining the alarm processing time, turnout time, and travel time, and is then

measured against benchmarks previously established in the City Council 1999 Resolution. The Resolution is currently in the process of being rescinded; however, at this time the CSFD still utilizes the benchmarks outlined in the Resolution. The benchmarks require the first unit on scene within eight minutes or less for 90% of all calls and when the call requires an effective firefighting force, that force will arrive within twelve minutes or less 90% of the time.

### **Fire Suppression - Benchmark**

For 90 percent of all **moderate risk** fire incidents, the total response time for the arrival of the ERF, staffed with 12 firefighters and officers (equivalent to three (3) units), shall be 12 minutes. The ERF shall be capable of providing a scene size-up including a 360-degree evaluation, establishing command, and initiating fire ground operations in accordance with the CSFD Operations Procedure Manual, Section 300, Fire Operations.

For 90 percent of all **high-risk fire incidents**, the total response time for the arrival of the ERF, staffed with at least 16 firefighters and officers (equivalent to four (4) or more units), shall be 12 minutes. The ERF shall be capable of providing a scene size-up including a 360-degree evaluation, establishing command, and initiating fire ground operations in accordance with CSFD Operations Procedure Manual, Section 300, Fire Operations.

<b>Moderate Fire Suppression - 90th Percentile Times - Baseline Performance</b>			<b>2017-2021</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Alarm Handling</b>	Pick-up to Dispatch		02:51	03:18	03:13	02:22	02:27	01:59
<b>Turnout Time</b>	Turnout Time 1st Unit		02:05	02:12	02:01	01:59	02:01	02:03
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>		05:17	05:01	05:19	05:14	05:27	05:35
	Travel Time ERF <b>Concentration</b>		08:17	08:29	08:03	07:48	07:32	08:39
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>		08:49	08:52	08:49	08:24	08:25	08:43
			696	182	127	112	150	125
	Total Response Time ERF <b>Concentration</b>		13:33	14:23	12:55	12:00	13:29	14:25
			696	181	128	112	150	125

<b>High Fire Suppression - 90th Percentile Times - Baseline Performance</b>			<b>2017-2021</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Alarm Handling</b>	Pick-up to Dispatch		02:13	02:57	02:29	01:31	01:38	01:36
<b>Turnout Time</b>	Turnout Time 1st Unit		02:02	02:15	01:59	01:44	02:02	01:51
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>		05:22	04:57	05:18	05:22	06:09	04:30
	Travel Time ERF <b>Concentration</b>		16:00	16:40	15:43	14:41	13:08	16:31
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>		08:14	08:13	08:38	07:34	08:42	07:14
			281	65	60	48	66	42
	Total Response Time ERF <b>Concentration</b>		24:37	24:45	24:03	25:34	24:26	24:25
			281	65	60	48	66	42

## **Emergency Medical Services- Benchmark**

For 90 percent of all **moderate risk** EMS incidents, the total response time for the arrival of the effective response force (ERF), consisting of the first ALS unit (equivalent to an engine or squad, but does not include a truck), shall arrive within 12 minutes. The ERF shall be capable of providing a scene size up, initiating patient contact, and providing advanced life support level care in accordance with CSFD Operations Procedure Manual, Section 400, Medical Operations, and the Colorado Springs Pre-hospital Practice Guidelines.

For 90 percent of all **high-risk** EMS response incidents, the total response time for the arrival of the effective response force (ERF), consisting of the first ALS unit (equivalent to two (2) engines or squads, but does not include trucks), shall be 12 minutes. The ERF shall be capable of providing a scene size-up, initiating patient contact, providing advanced life support level care in accordance with CSFD Operations Procedure Manual, Section 400, Medical Operations, and Colorado Springs Pre-hospital Practice Guidelines.

<b>Moderate EMS - 90th Percentile Times - Baseline Performance</b>			<b>2017-2021</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Alarm Handling</b>	Pick-up to Dispatch		02:46	04:16	03:19	02:25	02:13	02:24
<b>Turnout Time</b>	Turnout Time 1st Unit		01:39	02:04	02:00	01:31	01:31	01:35
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>		06:15	08:21	06:42	05:47	05:53	06:09
	Travel Time ERF <b>Concentration</b>		06:15	08:21	06:42	05:47	05:53	06:09
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>		09:04	12:57	10:39	08:29	08:22	08:46
			1549	144	178	423	412	392
	Total Response Time ERF <b>Concentration</b>		09:04	12:57	10:39	08:29	08:22	08:46
			1549	144	178	423	412	392

<b>High EMS - 90th Percentile Times - Baseline Performance</b>			<b>2017-2021</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Alarm Handling</b>	Pick-up to Dispatch		04:47	04:49	05:10	03:26	02:18	02:52
<b>Turnout Time</b>	Turnout Time 1st Unit		02:01	02:51	02:04	01:35	01:41	01:29
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>		08:09	07:13	07:43	09:16	08:38	07:05
	Travel Time ERF <b>Concentration</b>		10:07	08:07	11:31	12:53	09:06	10:19
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>		12:19	11:09	14:44	13:55	11:24	28:44
			69	9	9	11	23	17
	Total Response Time ERF <b>Concentration</b>		15:58	12:55	19:35	17:56	14:14	13:20
			69	9	9	11	23	17

## **Technical Rescue-Benchmark**

For 90 percent of all **moderate risk** technical rescue incidents, the total response time for the arrival of the effective response force (ERF) of one engine and one truck, staffed with 8 firefighters and officers (equivalent to two (2) units), shall be 12 minutes. The ERF shall be capable of establishing command, providing a scene size up, locating and accessing the patient, providing at least basic life support level care and at least operations level skills for: extrication; trench; low angle requiring a single rope system; water; collapse; and confined space rescue. These units shall also recognize the need for additional resources and remove the patient from the environment (trenches less than 4 feet deep, deep- standing or shallow swift-moving water, extrication using hand tools, low angle terrain, and elevators) using some technical, operations level skills.

For 90 percent of all **high-risk** technical rescue incidents, the total response time for the arrival of the effective response force (ERF) of at least one engine, one truck, and one rescue unit, staffed with 12 firefighters and officers (equivalent to three (3) or more units), shall be 12 minutes. The ERF shall be capable of establishing command, providing a scene size up, locating and accessing the patient, providing at least basic life support level care and at least operations level skills for: extrication; trench; high angle; water; collapse; and confined space rescue. These units shall also recognize the need for additional resources and remove the patient from the environment (trenches less than 20 feet deep, deep-standing or rising swift-moving water, extrication requiring hydraulic tools, high angle terrain requiring main and separate belay ropes, and confined spaces without entanglement hazards) using operations and technician level skills.

<b>Moderate Rescue - 90th Percentile Times - Baseline Performance</b>			<b>2017-2021</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Alarm Handling</b>	Pick-up to Dispatch		02:26	03:35	03:45	01:53	01:42	01:31
<b>Turnout Time</b>	Turnout Time 1st Unit		01:56	02:15	02:18	01:49	01:49	01:44
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>		05:49	07:22	06:04	05:46	05:25	05:33
	Travel Time ERF <b>Concentration</b>		09:03	13:06	11:34	08:46	07:25	07:04
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>		08:27	11:52	10:12	07:56	07:18	07:25
			1244	182	168	288	334	272
	Total Response Time ERF <b>Concentration</b>		15:30	18:51	17:35	15:02	12:34	12:13
			1244	182	168	288	334	272

<b>High Rescue - 90th Percentile Times - Baseline Performance</b>			<b>2017-2021</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Alarm Handling</b>	Pick-up to Dispatch		03:07	03:59	06:21	02:38	00:50	00:58
<b>Turnout Time</b>	Turnout Time 1st Unit		01:54	02:10	01:59	01:52	01:47	01:38
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>		06:36	07:30	07:27	07:47	05:41	05:52
	Travel Time ERF <b>Concentration</b>		16:55	15:25	19:38	16:40	18:56	12:58
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>		10:09	11:36	12:50	11:11	07:10	23:23
			175	30	25	34	48	38
	Total Response Time ERF <b>Concentration</b>		23:25	21:05	27:10	23:37	22:01	22:07
			175	30	25	34	48	38

## **Hazardous Materials-Benchmark**

For 90 percent of all **moderate risk** hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team, staffed with 8 firefighters and officers (equivalent to two (2) units) shall be 12 minutes. The ERF shall be capable of providing at least operations-level mitigation including conducting a scene size up, assessing the need for additional resources, denying further entry, identifying the product, and establishing hot, warm, and cold zones, as needed. These units will also be capable of initiating hazard mitigation and control measures including advanced air monitoring, controlling leaks, capturing fluids, applying absorbent material, ventilation, conducting up to Level C entry into an IDLH atmosphere, and decontaminating personnel.

For 90 percent of all **high-risk** hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team and the decontamination unit, staffed with 16 firefighters and officers (equivalent to at least four (4) units), shall be 12 minutes. The ERF shall be capable of providing at least technician level mitigation including conducting a scene size up, assessing the need for additional resources, denying further entry, identifying the product, and establishing hot, warm, and cold zones as needed. These units will also be capable of initiating hazard mitigation and control measures including advanced air monitoring, controlling large leaks, capturing fluids and solids, applying absorbent material, ventilating, conducting up to Level A entry into an immediately dangerous to life and health (IDLH) atmosphere, and decontaminating personnel.

<b>Moderate Hazmat - 90th Percentile Times - Baseline Performance</b>		<b>2017-2021</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Alarm Handling</b>	Pick-up to Dispatch	03:43	03:49	04:30	02:05	02:36	01:51
<b>Turnout Time</b>	Turnout Time 1st Unit	02:20	02:21	02:43	02:07	02:08	02:18
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>	07:43	07:57	06:55	07:30	07:20	06:26
	Travel Time ERF <b>Concentration</b>	16:09	15:41	13:04	13:40	17:13	17:18
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>	12:16	12:35	12:43	10:43	10:20	11:35
		207	88	17	26	43	33
	Total Response Time ERF <b>Concentration</b>	23:16	21:41	24:46	19:37	25:06	23:46
		207	88	17	26	43	33

<b>High Hazmat - 90th Percentile Times - Baseline Performance</b>		<b>2017-2021</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Alarm Handling</b>	Pick-up to Dispatch	03:11	01:36	01:32	02:19	01:09	04:55
<b>Turnout Time</b>	Turnout Time 1st Unit	02:12	02:49	02:03	01:34	01:47	02:09
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>	05:35	03:09	03:24	01:28	05:46	05:29
	Travel Time ERF <b>Concentration</b>	12:13	08:34	07:37	08:32	08:37	14:19
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>	08:55	07:10	06:24	05:21	08:43	11:37
		16	3	2	1	2	8
	Total Response Time ERF <b>Concentration</b>	20:11	18:23	10:10	12:29	12:40	22:38
		16	3	2	1	2	8

## **Wildland Fire- Benchmark**

For 90 percent of all **moderate risk** wildland fire incidents, the total response time for the arrival of the effective response force (ERF), consisting of one engine and one brush truck, staffed with at least four (4) personnel (equivalent to two (2) units) shall be 12 minutes. The ERF shall be capable of conducting a size up, establishing incident command, conducting a threat assessment, establishing lookouts, communication, escape routes, and safety zones (LCES), identifying the anchor point, and deploying a simple hose lay in accordance with CSFD Operations Procedure Manual, Section 300.08, Wildland Fires.

For 90 percent of all **high-risk** wildland fire incidents, the total response time for the arrival of the effective response force (ERF), consisting of two engines and two brush trucks, staffed with at least eight (8) personnel (equivalent to four (4) or more units) shall be 12 minutes. The ERF shall be capable of conducting a size up, establishing incident command, conducting a threat assessment, establishing lookouts, communication, escape routes, and safety zones (LCES), identifying the anchor point, deploying a simple hose lay, establishing structure protection, and establishing a water supply in accordance with CSFD Operations Procedure Manual, Section 300.08, Wildland Fires.

Moderate Wildland - 90th Percentile Times - Baseline Performance			2017-2021	2021	2020	2019	2018	2017
<b>Alarm Handling</b>	Pick-up to Dispatch		04:19	05:15	03:29	02:25	02:32	05:28
<b>Turnout Time</b>	Turnout Time 1st Unit		02:33	02:26	03:10	01:39	02:24	02:34
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>		06:37	07:54	06:46	08:04	05:50	05:08
	Travel Time ERF <b>Concentration</b>		10:07	10:13	10:00	09:33	08:44	08:35
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>		11:26	14:51	11:54	09:19	08:12	09:50
			74	12	20	4	18	20
	Total Response Time ERF <b>Concentration</b>		19:39	19:18	20:32	17:55	14:48	19:53
			74	12	20	4	18	20

High Wildland - 90th Percentile Times - Baseline Performance			2017-2021	2021	2020	2019	2018	2017
<b>Alarm Handling</b>	Pick-up to Dispatch		04:32	04:26	02:28	04:01	07:02	04:38
<b>Turnout Time</b>	Turnout Time 1st Unit		02:54	02:55	02:24	02:36	03:19	02:07
<b>Travel Time</b>	Travel Time 1st Unit <b>Distribution</b>		06:22	06:40	06:02	06:57	06:50	05:25
	Travel Time ERF <b>Concentration</b>		15:33	12:42	16:40	12:51	19:14	12:41
<b>Total Response Time</b>	Total Response Time 1st Unit on Scene <b>Distribution</b>		12:42	13:26	09:15	10:48	13:30	54:53
			66	10	12	14	18	12
	Total Response Time ERF <b>Concentration</b>		23:33	22:33	23:04	20:28	25:07	23:34
			66	10	12	14	18	12

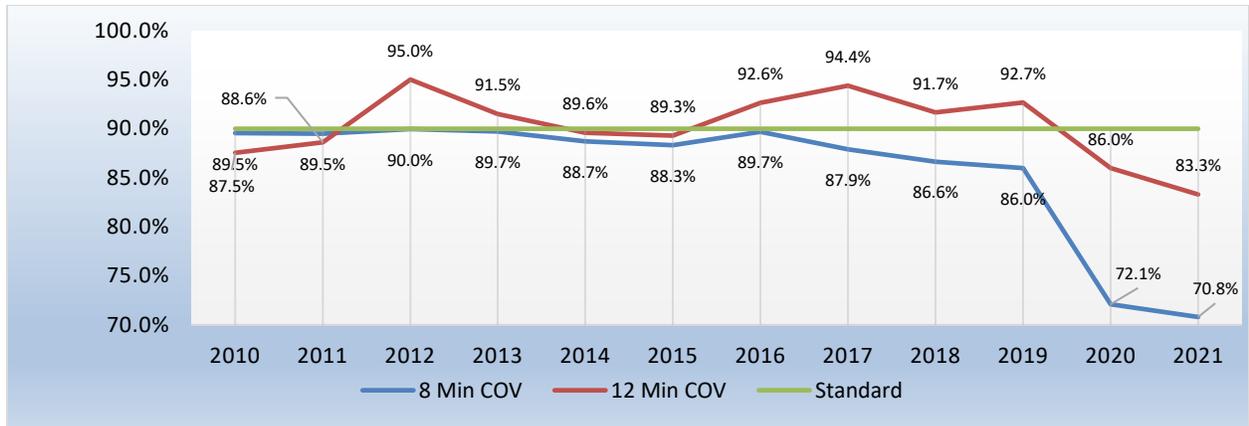
## *Evaluation of Current Deployment and Performance*

### **Service Level Performance**

The CSFD currently has established benchmarks, as directed by the City Council 1999 Resolution. Fire department response times for the first arriving company, defined as the time elapsed from when the call is received at the Communications Center until the first unit arrives on scene, shall be eight minutes or less for 90% of the incidents. Fire department response times for the minimum effective fire fighting force, defined as the time elapsed from when the call is received at the Communications Center until two engines and a ladder truck have arrived on scene, shall be 12 minutes or less for 90% of the incidents.

- The CSFD has seen an increase in response times. This has been attributed to city growth, as areas are being annexed, more people moving to the city and the department being held to antiquated benchmarks which were established over 23 years ago.
- For years 2020 and 2021, effective response goals were not met due to the implementation of new protocols in response to the pandemic. The Communications Center was tasked with asking additional questions, and station crews were required to don additional Personal Protective Equipment; both directly impacted response times.
- The Resolution is in the process of being annulled by the mayor. This will allow the department to determine more current, specific, and realistic outcome-based benchmarks. COVID specific protocols have been lifted and it is anticipated this will be reflected in baseline performance times approaching the established benchmarks.

## 8- and 12-Minute Standards of Coverage



## 8- and 12-Minute Standards of Coverage

Year	8 Min Standard	12 Min Standard
2016	89.7%	92.6%
2017	87.9%	94.4%
2018	86.6%	91.7%
2019	85.9%	92.7%
2020	72.1%	86.0%
2021	70.8%	83.3%

## 2021 Standards of Coverage by Station

Station	8 Min Standard	12 Min Standard
ST01	84.6%	91.43%
ST02	79.4%	61.54%
ST03	80.3%	68.00%
ST04	74.8%	88.00%
ST05	65.6%	60.00%
ST06	80.5%	80.00%
ST07	71.4%	90.63%
ST08	72.2%	92.54%
ST09	72.4%	73.91%
ST10	79.9%	93.48%
ST11	59.6%	77.27%
ST12	67.0%	50.00%
ST13	55.9%	83.33%
ST14	76.4%	90.48%
ST15	59.0%	75.00%
ST16	61.4%	50.00%
ST17	66.9%	81.82%
ST18	65.9%	100.00%
ST19	64.8%	90.00%
ST20	66.1%	75.00%
ST21	53.6%	50.00%
ST22	38.9%	100.00%
ST23	77.0%	80.00%

### Reliability

Response reliability is the ability of a unit to be available to respond within their own district when an emergency is dispatched. Reliability would be 100% if every company were available in its station anytime they received a call. There are many times that a company is already on a call, training, or taking the apparatus to the repair shop when another call comes in and they are unable to respond. The CSFD uses location-based dispatching, which affects response reliability. The closest unit(s) available are dispatched to emergencies, regardless of whether those units are in their primary districts or not. Also, even if the first due unit is in district and available, if another unit is closer that is the one that will be dispatched.

## Reliability by Unit – 2021

UNIT	CALLS IN DISTRICT	TOTAL CALLS	% IN DISTRICT 2021	% IN DISTRICT 2016
Engine 1	3640	5193	70%	70%
Engine 2	1528	2572	59%	58%
Engine 3	1588	2943	54%	55%
Engine 4	3415	4288	80%	84%
Engine 5	2340	2815	83%	82%
Engine 6	2241	3269	69%	70%
Engine 7	3815	4783	80%	71%
Engine 8	3207	5334	60%	62%
Engine 9	2647	3442	77%	78%
Engine 10	2809	3876	74%	75%
Engine 11	2932	3743	78%	71%
Engine 12	1082	1399	77%	70%
Engine 13	1376	1725	80%	71%
Engine 14	1593	2116	75%	73%
Engine 15	1284	1845	70%	73%
Engine 16	659	909	72%	81%
Engine 17	2328	2895	80%	83%
Engine 18	437	743	59%	68%
Engine 19	976	1904	51%	40%
Engine 20	1530	1950	78%	78%
Engine 21	1656	2119	78%	69%
Engine 22	1090	1147	95%	93%
Engine 23	3306	4653	71%	NA
Truck 1	1296	2467	52%	51%
Truck 4	1464	2150	68%	72%
Truck 8	1190	2460	48%	51%
Truck 9	1012	1644	62%	64%
Truck 10	1050	1851	57%	60%
Truck 19	313	865	36%	47%
HR 17	682	1349	51%	51%
Squad 7	42	78	54%	79.38%
Squad 8	3	57	5%	76.68%
Squad 11	10	19	53%	82.95%
Squad 21	3	114	3%	NA
		<b>overall average</b>	<b>64%</b>	<b>69%</b>

## Total Incidents - 2021

Company	ST01	ST02	ST03	ST04	ST05	ST06	ST07	ST08	ST09	ST10	ST11	ST12	ST13	ST14	ST15	ST16	ST17	ST18	ST19	ST20	ST21	ST22	ST23	Blank	Total	
E01	3640	291	279	332	88	26	14	27	34		8	1	45	1		2	2	3					312	88	5193	
E02	223	1528	73	6	79	393	22	2	173	2	1		7	1			1						21	41	2573	
E03	261	51	1588	190	496	3	5	13	18		12		245	1	1	2		1				2	18	36	2943	
E04	269	5	114	3415	6	2	3	28	1		84	1	132			61	1						55	111	4288	
E05	16	14	180	4	2340	3		1	43			2	150	2		3		4			1		5	47	2815	
E06	14	354	3		6	2241	296	4	115	122	2			10	2		5			4			48	43	3269	
E07	7	5	1			188	3815	298	2	157	33			1			119	1			1		102	53	4783	
E08	23	5	4	14	6	13	629	3207	12	3	687	2	1	1			11				2		644	70	5334	
E09	17	199	17	10	163	140	9	10	2647	26	7	94	6	13			4	17	2	1	1	5	4	50	3442	
E10	1	9			1	125	247	10	50	2809	5	1		251	2		213	1	4	88	7	1	2	49	3876	
E11	2		1	64	2	1	20	242	1	1	2932	1				30	2			1			171	272	3743	
E12	1	3		1	6				148	1	5	1082	2	71				36	15	1		4		23	1399	
E13	18	3	27	164	92			1	2			1	1376	2		9		1					3	26	1725	
E14				1	2	9	4		66	113	1	84		1593	11		15	5	52	126	4	10	2	18	2116	
E15	1		1	1		1	2		1	3	1	3		5	1284		9	1	170	178	147	7		30	1845	
E16	9		5	182	1				1		14		25			659								13	909	
E17				1		2	147	16	3	115	13			1	9				1	70	146		2	41	2895	
E18	1	1			11				144			139						437	1			1		8	743	
E19	4		2		2		3	1	14	5	1	16	1	393	209		59	1	976	51	14	125		27	1904	
E20				3	1	4		2	67	1	2			68	90		40		23	1530	89	1	1	28	1950	
E21					1	1		1	4						146		197		1	66	1656			46	2119	
E22						1	1	1	2					1			2		14	1		1090	3	31	1147	
E23	238	18	14	93	1	66	394	326	1	3	136		2				2						3306	53	4653	
H06	4	4	1	2	2	7	5	3	2	2	4		1				1						5		43	
H14	28	22	20	25	26	21	26	30	53	36	25	14	8	241	10	2	20	2	21	28	18	11	27	9	723	
HR17	22	16	10	26	26	9	103	58	23	87	41	4	11	12	24	3	682	2	6	40	82	5	37	20	1349	
S07	6	1	1	2	1	9	42	5		6	2												1		78	
S08	11	7	4	4	2	2	5	3	4	1	3	2						2		1			6		57	
S11				1			1	3			10		1				2							1	19	
S21	1	4	2	4	14	7	10	10	7	8	12	4	2	5	2		2		1	3	3	4	9		114	
T01	1296	175	157	181	98	50	43	67	52	4	28	5	52	2		12	1	5	2	1			192	44	2467	
T04	145	9	51	1464	28	4	4	64	9	5	81	1	121	2	1	42							64	55	2150	
T08	33	1	6	29	8	22	355	1190	3	33	378		3	2		2	24			1	1		340	29	2460	
T09	23	96	27	14	108	75	6	10	1012	36	2	111	12	28	1	1	2	13	7	3	1	13	11	32	1644	
T10	10	12	2	3	3	118	154	36	28	1050	11	9	2	151	10	2	116	2	12	64	25	3	11	17	1851	
T19	3	2		3	6	4	1		13	13	1	46	1	188	106	1	2	7	313	46	16	77	1	15	865	
TM2	69	1	1	1		1	3	7	43	2	2			2			2		1			1		2	138	
W04	12	1	6	24	4	1	2	2	2		5	1	10			2		1					2	10	3	88
W09		2	3		10		1		14			2	4	1	1			1	1				2	1	2	45
<b>Total</b>	<b>6408</b>	<b>2839</b>	<b>2600</b>	<b>6261</b>	<b>3641</b>	<b>3545</b>	<b>6377</b>	<b>5675</b>	<b>4745</b>	<b>4716</b>	<b>4548</b>	<b>1628</b>	<b>2220</b>	<b>3049</b>	<b>1909</b>	<b>833</b>	<b>3864</b>	<b>543</b>	<b>1623</b>	<b>2306</b>	<b>2215</b>	<b>1363</b>	<b>5414</b>	<b>1433</b>	<b>79755</b>	

## **Resiliency**

The CFAI Accreditation Model, refers to resistance as, “The organization’s ability to quickly recover from an incident or events, or to adjust easily to changing needs or requirements.” It lists the system components as resistance, absorption, and restoration. The CSFD accomplishes these in several different ways.

Resistance, the ability to deploy only the necessary resources, is addressed through the department’s critical task analysis. This analysis identifies the critical tasks that must be accomplished to successfully mitigate an emergency incident in the most efficient manner. The department’s critical task analysis shown in the Current Deployment and Performance section of this document represents the resources required for each type of incident. Officers retain the ability to call for additional resources as needed.

Absorption, the ability to quickly add or duplicate resources, is addressed through several different policies and through the use of mutual aid and automatic aid agreements. CSFD Policy 400, Emergency Personnel Call Back Procedures, defines how personnel will be added to maintain normal service delivery during a large-scale event. CSFD Policy 401, Minimum Staffing Hire Back, defines how personnel will be replaced to maintain minimum staffing and provide normal service delivery on a typical day. Crews from surrounding agencies with which the CSFD has mutual aid or automatic aid agreements are used to supplement CSFD resources during large-scale incidents of rare occurrence and/or magnitude.

Restoration, the rapid return of resources to normal capabilities, is addressed through general practices. Medical supplies are restocked on scene from the ambulances and monthly from the quartermaster, and controlled substances are provided by medical lieutenants. Air bottles can be refilled on scene by the air truck and a supply of additional bottles is kept in the stations. Personal protective equipment is repaired and cleaned at two different stations. Fire Station 18 manages turnout gear and Fire Station 15 manages self-contained breathing apparatus.

The CSFD has a continuity of operations plan (COOP) that is part of the City of Colorado Springs COOP. It is reviewed annually and updated as needed. This plan ensures the continuity of all department functions under any unusual circumstances that may disrupt normal business operations. The plan lists primary contacts, assigns members to functional teams, and designates orders of succession for leaders of the department. Essential functions are outlined for different periods of disruption (one day, one week, or one month) to prioritize what must continue to happen under extraordinary conditions. Alternate facilities are assigned for those working in the fire department complex buildings. Fire stations have designated alternate response locations.

## ***Plan for Maintaining and Improving Response Capabilities (2D)***

### **Compliance Model**

Compliance is best achieved through a systematic approach. The CSFD has identified the following seven-step compliance model:

- **Step 1 - Update Data** - The Standards of Cover performance charts will be updated annually with the previous year's data.
- **Step 2 - Review Performance Measures** - A review of the performance measures will be conducted annually. Review and validate:
  - Community Risk Assessment by category and risk classification
  - Standards of Cover
  - Services level objectives
  - Performance objectives and measures
- **Step 3 - Evaluate Performance** - Performance measures are applied to actual service provided:
  - Activity and performance by fire station district
  - City-wide activity and performance
  - Overall performance by incident category and risk classification
- **Step 4 - Develop Compliance Strategies** - Determine gaps and opportunities annually:
  - Determine what needs to be done to address any gaps
  - Determine if resources can be/should be reallocated
  - Seek alternative opportunities to provide service at desired level
  - Develop budget estimates as necessary
- **Step 5 - Communicate Expectations to Organization** –
  - Communicate expectations:
    - Explain method of measuring compliance to personnel who are expected to perform the services
    - Provide feedback mechanisms for personnel
  - Train personnel:
    - Provide appropriate levels of training/direction for all affected personnel

- Modify response processes, application systems, and technical infrastructure as necessary to comply
- **Step 6 - Revalidate Compliance:**
  - Annually review performance with command staff to ensure revalidation of Standards of Cover.
  - Determine whether external validation/verification techniques will be used to measure the performance.
  - Solicit external assistance, as necessary.
- **Step 7 - Make Adjustments/Repeat Process:**
  - Annually review changes to ensure that service levels have been maintained or improved.
  - Develop and implement a review program to ensure ongoing compliance:
    - Annual review and evaluation
    - Annual update of standards to ensure department is prepared for reaccreditation

### **Performance Reporting Methods**

Performance data is extracted on a regular basis and reports are provided to the administration on a weekly, monthly, and annual basis. Data included in these reports include incident count and distribution, response time performance, reliability, and utilization.

### **Performance Assessment**

The CSFD assesses performance data based on its current benchmarks of eight-minute arrival of the first unit 90% of the time and 12-minute arrival of the effective response force 90% of the time, as directed by the City Council 1999 Resolution. The administration regularly evaluates this data to ensure the department is providing the most efficient service delivery. While the department does not currently have specific outcome-based benchmarks, outcome-based performance measures for the different incident types and risk classifications are regularly reviewed. The department will work toward developing quantitative and meaningful performance benchmarks that will provide a better assessment of each service program and the department as a whole. Currently, the department is working with the mayor to annul the existing

Resolution to further refine benchmark statements to support outcome-based performance measures.

### **Continuous Improvement Plan**

The CSFD regularly assesses performance data and addresses gaps in service delivery. A written continuous improvement plan will be developed that will establish time frames for addressing existing gaps and variations, specific actions for remediation, and proposed new benchmark targets to ensure quality improvement.