



Evergreen Fire Protection District 2021-2025 Strategic Plan











INTRODUCTION

This document was developed to guide Evergreen Fire/Rescue (EFR) into the future with a strategy that will allow the organization to adapt to the changing environment within our community, the needs and performance of our paid and volunteer team members, and the needs of our residents and visitors. As the demographics, population, and the residential and commercial properties change, this Strategic Plan must continually be revisited to ensure the needs of the community are met.

Within the following document, a Standard of Cover (SOC) and a Risk Assessment (RA) have been developed to help us identify how well we are providing emergency services to the community, and what our risks are within the community. Emergency response times have been tabulated and rated against National Fire Protection Association (NFPA) standards to help us identify how well we are covering the Fire Protection District, and to allow us to set benchmarks for improvement.

In 2013, a focus group was organized. This group was made up of a variety of representatives from within the District including homeowner's association representatives, business owners, special district representatives, insurance and real estate representatives, media representatives, Evergreen Fire/Rescue personnel, and citizens from throughout the District. We defined for them how EFR was organized, where our funding comes from and how we planned to measure our emergency response performance. We then asked the group what they felt were the challenges facing EFR in the future and what they would like us to concentrate on moving forward. The chart below shows the result of this discussion. Over the last five years, EFR has addressed many of these initiatives, and the action taken will be included in this revised Strategic Plan.



In 2019, management held several organizational meetings to begin the process of updating the plan. A Strengths, Weaknesses, Opportunities and Threats exercise was completed for the organization as a whole and for each division. A Standard of Cover and a Risk Assessment was developed taking into consideration strategic initiatives that have been addressed, initiatives that have not been addressed, initiatives we need to carry forward, and new initiatives identified to address challenges within our ever changing environment.

Within the Strategic Plan we will recognize our strengths, our opportunities for improvement, and our focuses for the future. Each division will build a detailed plan taking into consideration timelines, cost/benefit analysis, budgetary

constraints and the feasibility of implementation. We will then make decisions on each item based on their respective benefit to the District and return on investment. Progress reports on these initiatives will be presented to the Evergreen Fire Protection District Board of Directors.

WHAT IS A STANDARD OF COVER?

The Center for Public Safety Excellence (CPSE) is an accreditation agency for the fire service. Its parent organization, the Center for Fire Accreditation International (CFAI)), defines the Standard of Cover (SOC) as "deployment analysis," *a written procedure which determines the distribution and concentration of fixed and mobile resources*^{1.}

The purpose of the SOC is to assist the Evergreen Fire Protection District in ensuring a safe and effective response force for fire suppression, Emergency Medical Services (EMS), and other responses. For this document the Evergreen Fire Protection District (EFPD) may be referred to as District, as Evergreen Fire/Rescue or EFR. The SOC is a baseline tool for defining emergency performance standards, provides a basis for continually measuring performance improvements over time, and is a guide to policy decisions dealing with resource procurement and allocation. It provides a basis to evaluate the risk assessment and ensure there are adequate resources to address those risks.

As the community changes, District leaders will have a valuable tool to assist with defining appropriate levels of service. There have been many attempts in the fire service to create a standard methodology for determining the exact number of firefighters, configuration of firefighters (career, combination, or volunteer), fire stations, or fire inspectors for the community needs. However, the differences in fire service challenges in each community have made it clear that there is not a "one-size-fits-all" solution. The variety of risks and levels of hazards that exist in the Evergreen community will determine the evaluation, design and development of a response system that identifies service levels that are safe, efficient, and effective. The emergency response capabilities should be evaluated using National Fire Protection Association's Standard 1720 *Standards for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operation to the Public by Volunteer Fire Department* as a guideline.

Attempts to control an emergency before it has reached its maximum intensity requires geographic dispersion and clustering of resources near service delivery points for maximum effectiveness against the greatest number and types of risk.

Not all areas of exposures within the District are equal. Some types of emergencies, such as multiple car collisions or hazardous materials incidents, require a prompt arrival of adequate resources to control the scene, perform rescue operations, and provide medical care. High-risk occupancies require timely arrival of fire companies to rescue occupants or to control the emergency. More resources are required to rescue people trapped in a high-risk building with a high occupancy load than would be needed in a low risk building with a low occupancy load. More resources are required to control fires in large, heavily loaded structures than are needed for fires in small buildings with limited contents. Remote areas of the District are outside the ability to provide adequate response time due to the locations of risks, but emergencies in these areas are a small percentage of the incidents. The SOC defines these risks and will assist the District in developing plans to mitigate them.

It is also understood that there is a cost to improving the deployment system. It is not financially feasible to put a fire station in every subdivision, but the SOC will determine the level of services that are within the present capability of the District.

¹ Center for Fire Accreditation International (CFAI); Fire and Emergency Service Self-Assessment Manual (FESSAM); 8th Edition; 2009

Therefore, creating a SOC consists of an evaluation of the placement of resources (number, type and location) in relation to the potential demand placed on them by the type of risk and historical needs in the community. Furthermore, if the SOC is to be meaningful to the community, the outcome must demonstrate that lives are saved, and properties are protected.

The SOC is a living document and will evolve over time. As the data becomes available, the changes should be tracked to ensure effectiveness.

WHAT IS A COMMUNITY RISK ASSESSMENT?

A Community Risk Assessment is an in-depth look at the community's risk in terms of fire, Emergency Medical Services (EMS) and other emergencies. The factors that drive the service needs are examined in a precise manner to determine the capabilities necessary to adequately address the risks. The assessment of risk is critical to the determination of the number and placement of resources, and to mitigation efforts. Based upon risk categories and the establishment of service management zones, the District can begin to build a system by objectively determining the capability to provide service at the level the citizens expect.

An important part of risk assessment is based on determining what the risks are and evaluating them on how frequently they may occur and their consequences. The evaluation will look back over the past five years at the types of incidents and the number of times they occur. From this information the probability of an event will be determined.

Chart 1 is used to determine the distribution and concentration of the resources within the District. The different quadrants require a different commitment of resources. Resources should be distributed around the District (fire stations with engines, brush engine, etc.) to intervene as individual standalone resources in the low and moderate risk incidents. Additional resources (water tenders, tower, etc.) should be concentrated near areas with higher or a unique risk in order to complement the individual first-due company's operations. For instance, a single engine company can suppress a dumpster fire, but multiple resources are necessary for suppressing a structure fire or large red-flag day wildland fire.



It is recognized that there are events that are beyond the scope of the incidents that occurred in the last five years. The risk assessment process will look at incidents that have a low probability but a high consequence (large wildland fires, commercial structure fires, etc.), determine the threat and through the strategic planning process develop mitigation efforts. The Standard of Cover (SOC) will provide performance information on the "all risk" operations that threaten the community to propagate goals and objectives in the Strategic Plan.

Each type of incident is evaluated based on life safety (the amount of personnel and equipment required to rescue or protect the public and firefighters from life-threatening situations), economic impact (loss of properties, income or irreplaceable assets), and other impacts to the community (historic buildings or community infrastructure).

DESCRIPTION OF THE COMMUNITY



*The area shown in light blue is the hydrant zone of the Evergreen Metro Water District.

The Evergreen Fire Protection District is a Special District organized under Colorado Revised Statutes Title 32 to provide fire protection for the community of Evergreen. The District is in the foothills west of Denver, Colorado and is 120 (74,254 acres) square miles. The District is responsible for an additional area that is within the Mount Evans Wilderness Area and is approximately 20 square miles. The terrain is the most dominate feature of the community. The district resides within the Bear Creek Basin with an altitude beginning (lower Bear Creek east of Kittredge) of 7,000 feet to over 11,000 feet in elevation.

HISTORY

The beauty of the Colorado Foothills has always been a draw from the Arapahoe and Ute Indians to modern day residents. The area is mountainous, but is still considered foothills by Coloradoans, who call the higher terrain the mountains. First settled after gold was discovered in Idaho Springs the area became a resting spot on the journey from Denver. From that exposure more settlers came and homesteaded the area as ranches. The Evergreen community was started in the 1860's and grew when the train came to Morrison. Evergreen became a destination and resorts were started throughout the community. These resorts supported the community along with ranching until the 1950's when the resorts began to fail. More people moved in and Evergreen evolved into a bedroom community of Denver. This has led to the modern day community of Evergreen with its population of 26,334 (2010 US Census).

The development of the community of Evergreen began along the confluence of Little Cub Creek and Bear Creek. The dam was constructed in 1922 and the community grew up in its shadow. The majority of development was near the downtown area with small summer cabins constructed within a few miles from the 1920's through the 1950's. This was the heyday of the resorts with a summer population of around 5,000 and a winter population of around 500. These structures were built without any building codes. A good number of these homes and structures still exist and most have been modernized. These structures provide a challenge to fire protection, as they tend to have many hidden spaces that can hide fire and can be dangerous to firefighting operations. Access to the community was along canyons from the Denver area (Bear Creek from Morrison; along US Highway 40 in Mount Vernon Canyon to the Bergen Park area; Turkey Creek Canyon to North Turkey Creek Canyon) and is still true today. Another feature of the community is the proximity to the multiple ski resorts. The resorts have always had a high impact on the economy. In the 1960's and 1970's the community began to modernize with the improvements of the roads. With Interstate 70 and State Highway 285 making the commute to Denver easier, Evergreen evolved into the community it is today.

On November 9, 1926, a fire started at Riel Mercantile on Main Street. The Mountain Parks Protective Association (MPPA) was notified and a bucket brigade from the creek was assembled. MPPA was a non-profit group of community members who pledged their time and resources to patrol the collection of homes that had developed in the valleys north and south of Bear Creek in Jefferson, Clear Creek and Park Counties. Following this fire, members of the MPPA acquired a fire truck and some equipment to support their efforts.

Evergreen's residents decided to establish an official fire department in 1948. "We met at the schoolhouse, and we all chipped in to buy some equipment ...We started out with a pump and a hose and a Dodge power wagon," A.R. Clark, one of Evergreen Fire/Rescue's founding members said. Mary Quaintance donated land on Main Street for a firehouse and the new firefighters built their new home.

The Evergreen Fire Protection District (EFPD) was formed in 1950. The Board of Directors consists of five community members elected by the community to serve four-year terms. They serve as custodians of the taxpayer dollars collected to support Evergreen Fire/Rescue (EFR) and are ultimately responsible for EFR operation.

The Evergreen Ambulance Service (EAS) was incorporated in September of 1952 as a nonprofit organization. They were minimally equipped with modified station wagons and volunteer drivers. Most volunteers became Emergency Medical Technicians, with specific pre-hospital training.



Original Station 1 across from the Red Ram (now the Little Bear)

The Evergreen Volunteer Fire Department became involved in providing emergency medical care through the Fire Rescue Squad. The Rescue Squad provided initial on-scene care and EAS transported the patient to the hospital. In 1984, through a coordinated fund drive and the support of the Evergreen community, a new ambulance facility was completed.

By 1985, emergency medical calls had doubled to over 600 per year. With an active membership under 20, EAS found it increasingly difficult to adequately cover all calls with strictly volunteer personnel. Emergency Medical Technicians were hired on a part-time basis for daytime coverage. In October 1985, negotiations began between EAS and EFPD to provide 24 hour per day Advanced Life Support (paramedic) coverage. On January 1, 1986, Evergreen Emergency Medical Services (EMS) came into being and later became another division of EFR.

The District with the support of the community has seen substantial growth in the last 70 years. Today the EFPD has 38 emergency response vehicles, eight stations, a fleet maintenance facility, a fire training building and an administration building. The EFPD employs twenty nine full time employees and fourteen part time employees, ten seasonal employees, seventy volunteer firefighters and fifteen auxiliary volunteers referred to as the Turnouts.

TOPOGRAPHY AND WEATHER

The terrain provides many challenges for the provision of fire protection. The roads generally follow the creek beds and then branch off into subdivisions. These access points were developed over the past 80 years when there were no road standards. These roads can be in poor condition, can be steep and have multiple switchbacks that make apparatus access difficult. Coupled with poor weather conditions, response to the stations by the volunteers and response from the stations to the scene can be delayed. The altitude reduces the power of engines and with the need for all wheel drive the power is further reduced slowing the ability of apparatus to arrive on scene in a timely manner.

The Front Range of Colorado is a timber moraine. The combination of heavy fuels, steep terrain, poor access and the increase in the number of homes has provided a combination of a high probability and a high consequence of devastating wildland fires. Evergreen and the surrounding communities in the foothills are the Wildland Urban Interface (WUI). The WUI is defined as homes and communities built in areas that are prone to wildfires. Over the past 20 years the western United States have experienced the advent of a new type of wildland fire, called Mega fires.

The weather can vary from dry windy red flag days with extreme wildland fire conditions to extreme snow storms that paralyze the community for a number of days, sometimes all in just a few days' time. Structure fires generally occur during poor weather. Civilians are using wood stoves, heat tape, and heating systems that increase the probability of fires.

POPULATION

Using the 2010 US Census data the population of the District is 26,334, and there are just fewer than 12,000 homes. The demographics are predominately white middle/upper class families. The older areas generally are neighborhoods with predominately blue collar and the newer developments tend to be white collar professional.



Chart 2, Evergreen Fire Protection District Demand Zones

The Urban Demand Zone is defined as having a population greater than 1,000 per square mile and is generally within the water district. The Suburban Demand Zone has a population of 500 to 1,000 per square mile and generally surrounds the water district. The Rural Demand Zone has a population of less than 500 per square mile and makes up the largest demand zone in the district. The Remote Demand Zone is defined by NFPA 1720 as areas farther than eight miles from a fire station. The District has no areas farther than eight miles from a fire station, but for this plan, EFR has chosen to recognize two areas as remote due to terrain and road conditions affecting response time. These areas are Bear Mountain and Echo Hills.

THE FOUNDATION

The EFPD Board of Directors understands the importance of developing a strategy that is grounded on a strong foundation. Our foundation is best expressed by our mission, vision, and values, which were written as a collaborative effort of all divisions that make up EFR.

Mission Statement: Protect life, property, and the environment through prevention, preparedness, education and emergency response.

Vision: Achieve our highest potential by:

- *Recognize change in our community and respond accordingly.*
- Cultivate a safe and effective environment for the public and our members.
- Create a positive work environment through effective internal communication, relationships and leadership.
- Strive to be role models in the community and leaders in our profession.
- Promote responsible stewardship of the resources afforded to us by the community. Utilize technologies and methods to evaluate and enhance current practices.

Values:

- Respect and Integrity
- Effective Communication
- Responsibility and Accountability
- Team Work
- Encourage and value all contributions Commitment and Pride



ADMINISTRATION

The Administration Division currently includes six paid staff members. Full time employees fill the rolls of Fire Chief, Wildland Coordinator, Wildland Specialist, Office Manager and Accounting Clerk. A part time employee fills the role of Human Resources. Information Technology services and Financial Management are outsourced.

The Fire Chief is the administrative head for the fire protection district and the head line officer for operations. He is responsible for supervising the Division Chiefs/Managers, budgeting, and the daily operations of EFR. The Chief reports to the EFPD Board of Directors. The Office Manager provides administrative support as needed to each division and manages the use of the classrooms for internal meetings and area groups. The Accounting Clerk is responsible for all accounts receivable /payable. The Human Resource Specialist manages personnel on-boarding and off-boarding, personnel records, payroll, and employee benefits. The Wildland Coordinator is responsible for initiatives recognized in the Community Wildfire Protection Plan, grants to support mitigation efforts and community education.

COMMUNICATIONS

The Communications Division was officially closed in 2018 with the opening of the Jefferson County Communications Center Authority. EFR wishes to thank all the Emergency Communications Specialists (ECS) who have served the community of Evergreen through the years. This includes the Kitchen Dispatchers with the red, party-line telephone in their homes, setting off the sirens when an emergency call came to them, to the eight full time ECS's, the part time ECS's and the Communications Manager the division employed up until 2018. Thank you for being our first, first responders.

Eight Fire and Law Enforcement agencies created a consolidated, county wide communications center. EFR is one of the founding member agencies and holds a position on the Board of Directors. Known as Jeffcom, the authority is authorized to employ 118 Emergency Communications Specialists, 18 supervisors and 8 administrative personnel. "Jeffcom is the lifeline between emergency services and the community."

EMERGENCY MEDICAL SERVICES

The Emergency Medical Services division provides Advanced Life Support (ALS) ambulances and paramedics. At present, there are four ambulances available, and four paramedics on duty at all times. All four ambulances can be dispatched on calls with one Paramedic and a Firefighter as a driver when needed. The EMS Division Chief leads the division directing the Paramedic Captains and the Paramedics in their daily duties and in their adherence to accepted protocols. The paramedics are quartered at Station 2 and Station 4 for coverage of both the north and south sides of the district. There are 13 full time paramedics, 8 part time paramedics and an Evergreen Community Assistance Referral and Education Service (ECARES) paramedic.

FIRE OPERATIONS

The Evergreen Volunteer Fire Department (EVFD) is a 501c4 non-profit corporation that was organized in 1948. They are led by the Division Chief of Fire Operations, a full-time paid position, and the volunteer Deputy Chief of Fire Operations with a Volunteer Board of Directors governing compliance under the EVFD Bylaws. The Deputy Chief, and the Volunteer Board of Directors, are elected positions, voted on by the firefighter membership. The volunteer firefighters are required to maintain a Colorado State Firefighter I certification, which includes Hazardous Materials Operations as well as a Cardiopulmonary Resuscitation (CPR) certification. To be a member of the Rescue Squad, they are required to maintain a minimum of Emergency Medical Responder certification. For wildland fire response, they are required to maintain a National Wildfire Coordinators Group (NWCG) Red Card certification. These certifications are obtained through the ten-month Fire Academy, held each year for new members, and maintained with monthly training.

The Training Coordinator is responsible for trainings, certifications, and the safety program.

The Turnouts volunteer auxiliary group was formed in 2017. Governed by bylaws approved by the EFPD Board of Directors, they have defined their purpose as:

"The EFR TURNOUTS is an organization of community-oriented volunteers dedicated to the support of Evergreen Fire Protection District (EFPD) through; community outreach, event coordination, volunteer recruitment and first responder assistance before, during and after emergency incidents."

In 2020 they were outfitted with a response vehicle housed at Station 4. This van was fitted with the equipment and supplies the group will need while supporting operations during emergency incidents.

FIRE PREVENTION

The Fire Prevention Division includes the Division Chief/Fire Marshal and two Fire Inspectors. This division is responsible for construction drawing reviews, driveway inspections, fire investigations, and commercial building inspections for the District. Fire Prevention also is responsible for the operational pre-plans of commercial buildings and for community outreach.

The Division had provided contracted inspection and investigation support for other fire departments in the mountain region. As of 2021, contracted support for North Fork Fire remains active.

MAINTENANCE

The Maintenance Division consists of a Maintenance Manager, a Lead Mechanic, a Compliance Technician, and a Facilities Technician. Their responsibilities include preventative maintenance and repair of the apparatus and facilities. They also contract maintenance services for many of the surrounding fire districts apparatus. These include Elk Creek Fire, Indian Hills Fire, Highland Rescue, Foothills Fire, Inter Canyon Fire, Flight for Life ground services, Genesee Fire, and the Evergreen Metro District.

STANDARD OF COVER

REVENUE AND EXPENSES

In 1950 the Evergreen Fire Protection District (EFPD) was incorporated to help provide funding to the Evergreen Volunteer Fire Department. The EFPD collects property taxes to fund capital outlays; staffing (including dispatch services, EMS transport paramedics, mechanics, and administration); building and apparatus maintenance, fire prevention and training etc. The 2020 mill levy was 12.380. This includes a 1.135 mill for bond repayment voted on and approved by the district in 2002 to fund the construction of fire stations and purchase of apparatus.





Chart 2: Total Revenue vs. Total Revenue 2016 – 2020

*Chart 2 - Capital Reserve Savings consisting of non-allocated revenue is applied to long term planning for the purchase of apparatus, strategic capital expenditures, and Station 1 relocation and construction. Capital Reserve Expenditures are purchases made in the fiscal year from these funds as planned expenses.

The last mill levy increase for the District was in 2016. The economic recession beginning in 2008 began to affect the District's financial position by 2012. With revenue dropping, the District was forced to reduce expenses. A 3.5 mill increase approved by the voters secured the financial future of EFR for years to come. In 2018, the voters approved a ballot question allowing the District to adjust the mill levy when there was a drop in the Residential Assessment Rate (RAR) due to the Gallagher Amendment and the Taxpayer Bill of Rights (TABOR). This assured revenue would, at a minimum, stay flat as the RAR decreased as a result of the Gallagher Amendment.



Chart 3: Expenses by Operating Account 2020

Capital Equipment Reserve

Personnel expenses and Operating Expenses make up 83% of the budget in 2020. The remaining 17% was added to the District's Reserve Funds, which includes capital equipment replacement, apparatus replacement and a fund for the replacement of Station 1. Station 1 reserves have been emphasized in planning for the construction to occur.

Apparatus Reserve



Station 1 Savings

■ Station 1 Expenditures

Chart 4: Reserve savings and expenditures 2016 - 2020

As of 2019 the surrounding districts mill levies were:

| Elk Creek Fire | 10.933 |
|---|---|
| Coal Creek Fire | 10.000 |
| Genesee Fire | 9.500 |
| Fairmount Fire | 11.684 |
| Golden Gate Fire | 9.016 |
| | |
| Evergreen Fire Rescue | 12.380 (-1.135 = 11.245); 1.135 mills of bond debt will be paid in full in 2023 |
| Evergreen Fire Rescue Foothills Fire | 12.380 (-1.135 = 11.245); 1.135 mills of bond debt will be paid in full in 2023 9.196 |
| Evergreen Fire Rescue Foothills Fire Inter-Canyon Fire | 12.380 (-1.135 = 11.245); 1.135 mills of bond debt will be paid in full in 2023 9.196 13.590 |
| Evergreen Fire Rescue Foothills Fire Inter-Canyon Fire North Fork Fire | 12.380 (-1.135 = 11.245); 1.135 mills of bond debt will be paid in full in 2023 9.196 13.590 12.083 |
| Evergreen Fire Rescue Foothills Fire Inter-Canyon Fire North Fork Fire Indian Hills Fire | 12.380 (-1.135 = 11.245); 1.135 mills of bond debt will be paid in full in 2023 9.196 13.590 12.083 12.066 |

INSURANCE SERVICES OFFICE RATING (ISO)

In 2018 the District conducted an ISO audit. ISO collects and evaluates information from communities on their structure fire suppression capabilities. ISO analyzes the data using their Fire Suppression Rating Schedule (FSRS TM) and then assigns a Public Protection Classification (PPC TM). The fire department, the fire alarm and communications system, and the water districts are evaluated during this audit. Although not all insurance companies use this rating system when calculating insurance rates on a property, we have selected this as a standard of measure.

Evergreen improved their PPC from a split rating of 5, 6, and 10 to a split rating of 3, 4, and 10W. The first number, 3, applies to properties within 5 road miles of a recognized fire station and within 1,000 feet of a fire hydrant or alternate water source. The second number, 4, takes into account the alternate water source applying to properties within 5 road miles from a recognized fire station with no fire hydrant distance requirements. ISO has recognized the fire departments water shuttle capabilities, meaning the ability to truck water to a fire scene. The last number, 10W, applies to properties over 5 road miles from a recognized station but has recognized water sources.

ISO releases their findings in two separate reports. One report is for the hydrant district and includes the Metro Districts and other water districts in its determination. The second report excludes the hydrant districts and includes the fire departments water shuttle capabilities. The three components of the reports and the scoring are:

10% of Rating from Fire Alarm and Communication System:

Rating our dispatch center

50% of Rating from Fire Department:

Rating our equipment, personnel and training

40% of Rating from the Water Supply System:

Rating the supply system made up of the hydrants, the hydrant inspection or condition, and the water shuttle.

| FSRS Item | | Earned Credit | Credit Available |
|-----------------------------------|--|------------------|---------------------|
| Receiving & Handling Fire Alarms: | Credit for Telephone Service | 3.00 | 3 |
| | Credit for Operators | 4.00 | 4 |
| | Credit for Dispatch Circuits | 3.00 | 3 |
| | Credit for Receiving and Handling Fire Alarms | 10.00 | 10 |
| Fire Department: | Credit for Engine Companies | 5.95 | 6 |
| | Credit for Reserve Pumpers | 0.46 | 0.50 |
| | Credit for Pumper Capacity | 3.00 | 3 |
| | Credit for Ladder Service | 2.74 | 4 |
| | Credit for Reserve Ladder and Service Trucks | 0.00 | 0.50 |
| | Credit for Deployment Analysis | 6.48 | 10 |
| | Credit for Company Personnel | 5.82 | 15 |
| | Credit for Training | 7.29 | 9 |
| | Credit for Operational Considerations | 2.00 | 2 |
| | Credit for Fire Department | 33.74 | 50 |
| Water Supply: | Credit for Supply System | 26.65 | 30 |
| | Credit for Hydrants | 3.00 | 3 |
| | Credit for Inspection and Flow Testing | 4.56 | 7 |
| | Credit for Water Supply | 34.21 | 40 |
| | | | |
| Divergence: | | -3.61 | - |
| 1050. Community Risk Reduction | | 4.94 | 5.50 |
| | Total Credit | 79.28 | 105.50 |

Class 03 Rating for Hydrant District

Chart 5: Public Protection Summary Report, Evergreen Fire Protection District, Colorado, September 1, 2018

| FSRS Item | | Earned Credit | Credit Available |
|-----------------------------------|--|------------------|---------------------|
| Receiving & Handling Fire Alarms: | Credit for Telephone Service | 3.00 | 3 |
| | Credit for Operators | 4.00 | 4 |
| | Credit for Dispatch Circuits | 3.00 | 3 |
| | Credit for Receiving and Handling Fire Alarms | 10.00 | 10 |
| Fire Department: | Credit for Engine Companies | 5.95 | 6 |
| | Credit for Reserve Pumpers | 0.46 | 0.50 |
| | Credit for Pumper Capacity | 3.00 | 3 |
| | Credit for Ladder Service | 3.77 | 4 |
| | Credit for Reserve Ladder and Service Trucks | 0.00 | 0.50 |
| | Credit for Deployment Analysis | 3.25 | 10 |
| | Credit for Company Personnel | 6.02 | 15 |
| | Credit for Training | 7.29 | 9 |
| | Credit for Operational Considerations | 2.00 | 2 |
| | Credit for Fire Department | 31.74 | 50 |
| Water Supply: | Credit for Supply System | 15.19 | 30 |
| | Credit for Hydrants | 3.00 | 3 |
| | Credit for Inspection and Flow Testing | 4.56 | 7 |
| | Credit for Water Supply | 22.75 | 40 |
| | | | |
| Divergence: | | -1.32 | - |
| 1050. Community Risk | | 4.94 | 5.50 |
| | Total Credit | 68.11 | 105.50 |

Class 04/10 Rating

Chart 6: Public Protection Summary Report, Evergreen Fire Protection District, Colorado; September 1, 2018

ISO updated their rating system in 2014. This had a significant impact on the ratings for EFR. The addition of Community Risk Reduction to the point system, which gives credit for Fire Prevention programs, education, and inspections, as well as Operational Considerations, which gives credit for Incident Management Systems and Standard Operating Procedures, helped reduce EFR's ratings.

The move to Jeffcom increased the Communications points from 6.92 to the full credit of 10.00. Credit for Engine Companies increased as a result of Auto-Aid agreements put in place with our surrounding fire districts. These agreements allow for the notification of the next closest fire department to support fire operations.

WATER SUPPLY

In the early 1950's a couple of insightful individuals started a water district and purchased very senior water rights. As a result of this action part of the District is covered by a fire protection hydrant system. The Evergreen Metro District has developed a solid and reliable hydrant system through the core of the District and in upper Kittredge. The lower Kittredge hydrant system consists of small diameter water lines, delivering low flow. EFR considers these hydrant flows too low for a large fire attack and relies on water shuttle operations in the interior of lower Kittredge. The Brook Forest Water District also has an organized water system with hydrants. A 125,000-gallon water tank feeds this system, and its pressure is generated by the height of the tank above the system, or head pressure. Most of this system generates too low of a pressure/ volume to be considered usable during a fire attack. The hydrant districts cover 9.6% of the District (10.85 square miles compared to 120 for the District). The balance of the District's fire protection is accomplished by hauling water using tenders filled at hydrants, cisterns, lakes, ponds, and creeks. The District has developed a water cistern/water supply system that provides a two-hour water supply at 250 gallons per minute over a five-mile distance (Insurance Services Office (ISO) requirement). The actual capability for water supply is dependent on the number and capacity of the water tenders and the location of the fire in relationship with the water supply. Evergreen has 41 cisterns and dry hydrants throughout the district, both privately owned, and District owned.

Improvements to the water district include an additional 30,000 gallons of capacity added to the cistern at Bear Mountain and Stanley Park, totaling 50,000 gallons available for use. The hydrant district continues to expand with development of commercial and residential buildings, with now over 900 fire hydrants.

| 1 | 125,000 gal. | 34937 Forest Estates Rd. | Brook Forest Estate Water Tower |
|----|--------------|--|--|
| 2 | 40,000 gal. | Fire Station 8 | Fire Station 8 |
| 3 | 3 ponds | Pvt.7982 Gray Fox Dr. | Evergreen Meadows Pond |
| 4 | 1M gal. pond | Pvt. 7963 Brook Forest Rd. | Stevenson Dam |
| 5 | 10,000 gal. | Pvt. Blue Creek Rd. & Lynx Lair Rd. | Blue Creek Estate Cistern |
| 6 | 10,000 gal. | Pvt. Blue Creek Trl. & Red Tail Trl. | Blue Creek Trail |
| 7 | 10,000 gal. | Pvt. 6871 Hwy 73 | Evgn Professional & Tech Center |
| 8 | 30,000 gal. | Fire Station 3 | Fire Station 3 |
| 9 | 60,000 gal. | Pvt. NW corner Hwy 73 & NTCR | Bus Barn Cistern |
| 10 | Small Pond | Pvt. Timbers Dr. & NTCR | The Timbers |
| 11 | Small Pond | Pvt. Alabraska Ln. & Kiem Rd. | Alabraska Pond |
| 12 | 1.5M gal. | Pvt. Little Cub Crk Rd & Lost Creek Rd | Lost Creek Ranch |
| 13 | 30,000 gal. | Turkey Ln. | Turkey Lane Cistern |
| 14 | 10,000 gal. | Pvt. 5340 Three Sisters Cir. | Evergreen Heights Cistern |
| 15 | 50,000 gal. | Bear Mtn. Dr. & Stanley Park Rd. | Bear Mountain Cistern |
| 16 | 20,000 gal. | Pvt. 24500 block of Chris Dr. | Chris Drive Estate – Auto-barn & House |
| 17 | Bear Creek | Golden Willow & UBCR | Golden Willow Dry Hydrant |
| 18 | 10,000 gal. | Pvt. 151 Fox Hollow Ln. | Fox Hollow Cistern |
| 19 | 10,000 gal. | Pvt. Ranch Rd. & Elk Crossing Ln. | Ranch Rd. & Elk Crossing |
| 20 | 10,000 gal. | Pvt. 32422 Buffalo Creek Rd. | Buffalo Creek Cistern |
| 21 | 25,000 gal. | Pvt. 91 Evans Ranch Rd. | Mount Evans Outdoor Lab School |
| 22 | 10,000 gal. | Pvt. 187 Fox Ridge Rd. | Fox Ridge Rd. |

| 23 | 4,000 gal. | Pvt. 997 UBCR | Tallgrass Spa |
|----|-------------|--|---------------------------|
| 24 | 40,000 gal. | Fire Station 5 | Fire Station 5 |
| 25 | 30,000 gal. | Pvt. Songbird Rd./Hilltop Rd. | Songbird Cistern |
| 26 | 40,000 gal. | 2450 Witter Gulch Rd. | Witter Gulch Cistern |
| 27 | Small Pond | Witter Gulch Rd. @ Circle K Ranch Rd. | Witter Gulch Pond |
| 28 | 30,000 gal. | Pvt. 32350 Alpine Ln. | Alpine Ln. |
| 29 | 10,000 gal | Pvt. 200 block of Bear Claw Ln. | Timber Place / Echo Hills |
| 30 | 10,000 gal. | Pvt. 2116 Wieler Rd. | Wieler Rd. |
| 31 | 10,000 gal. | Pvt. Kerr Gulch Rd. & Silvervale Ln. | Silverdale Cistern |
| 32 | 30,000 gal. | 10 Block of Old Squaw Pass Rd. | Old Squaw Pass Cistern |
| 33 | 10,000 gal. | Pvt. 1200 block of Silver Rock Ln. | Silver Rock Cistern |
| 34 | 10,000 gal. | Pvt. 197 Hyland Dr. | Mountain Mini Storage |
| 35 | 18,000 gal. | Pvt. Gray Hawk Dr./Lynx Lair Rd. | Craigmont |
| 36 | Small Pond | Pvt. Between Kilamanjaro Dr. and Silverhorn Dr. | Evergreen Highlands |
| 37 | 10,000 gal | Pvt. Chateau V. Rd. | Golden Willow |
| 38 | Small Pond | Pvt. 3132 Evans Ranch Rd. | Evan's Ranch |
| 39 | Small Pond | Pvt. 3999 Evans Ranch Rd. | Evan's Ranch |
| 40 | 30,000 gal. | Pvt. 3999 Evans Ranch Rd. | Evan's Ranch |
| 41 | Small Pond | Pvt. 2051 Evans Ranch Rd. | Evan's Ranch |

Chart 7: Not each pond and creek listed has a dry hydrant connection.

FACILITIES AND APPARATUS

The department has eight stations plus a training center, an administrative office, and a maintenance facility. Seven of the stations house fire apparatus and two stations house the EMS staff and ambulances. Station 4 houses only EMS staff and ambulances.

Station One is the oldest station and was constructed in 1966. It is located below the dam in the historic downtown of Evergreen. It houses a structural engine, two heavy water tenders, a pump truck, a brush engine, a rescue truck, and a utility vehicle. It was recognized in the 2001 and 2014 Master Plans that the station is not at an ideal site and its age has become a factor. It is in a flood plain and the traffic that passes along Jefferson County 73 makes access to and from the station difficult. Changes to Highway 73 scheduled for 2021 and 2022 will impact the station. The station protects the downtown area and surrounding subdivisions.

Station Two is in Bergen Park and is the second oldest station. The original station was constructed in 1977 and has been remodeled multiple times to accommodate the expanding needs of the community. It presently houses the EMS staff, two ambulances, a structural engine, aerial tower, heavy water tender, heavy rescue, and a brush engine. The Station 2 campus also houses the administrative offices, a live fire training building, and the apparatus maintenance facility. The Station 2 campus is also home to the Administration building. Home to EFR, the meeting/training rooms in the building are available to the public and have a high occupancy record.

Station Three protects Marshdale Park, the southern commercial area and the school complex (Marshdale Elementary and West Jeffco bus barn) and surrounding subdivisions. The site for the station was purchased and construction was

completed in the early 1990's. It houses a structural engine, water tender, two brush engines, and a new Type 3 brush engine purchased in 2020. In 2020 the addition of a seasonal Fuels Crew utilized Station 3 as a home base.

Station Four houses two ambulances and a utility vehicle. The station is staffed full time. The site of the building is suitable for providing service to the downtown area and the southern part of the District.

Station Five protects the Upper Bear Creek area. The station was constructed as part of the 2002 and 2005 mill levy increase and bond election. The station houses a wildland urban interface/structural engine and tactical water tender.

Station Six protects the Kittredge area. It houses a structure engine and a brush engine. It was constructed using the 2002/2005 mill levy increase and bond election.

Station Seven protects the Floyd Hill, Northern Soda Creek, and the Interstate 70 corridor. The station houses a wildland urban interface/structural engine, brush engine, and tactical water tender. It was constructed using the 2002/2005 mill levy increase and bond election. An additional bay door was added to the structure in 2014 to improve access for the brush engine.

Station Eight protects the Brook Forest Area. The station houses a wildland urban interface/structural engine and tactical water tender. It was constructed using the 2002/2005 mill levy increase and bond election.

| Apparatus Identifier | Function | NWCG Type | App Ider |
|-------------------------|-----------------------|--------------|-------------|
| STATION 1 | - Downtown | | STA |
| E131 | Pumper | Type 4 | M1 |
| R141 | Utility/Fire Rescue | | M12 |
| P181 | Pump Truck | | Util |
| B151 | Brush | Type 7 | STA |
| Te171 | Tanker | Type S2 | E13 |
| Te161 | Tanker | Type S1 | Te1 |
| Utility 191 | Comnd/Medic Transport | | STA |
| STATION 2 | - Bergen Park | | E13 |
| R142 | Heavy Rescue | | B15 |
| E132 | Type 1 Pumper - 4x4 | | STA |
| Te162 | Tanker | Type S1 | E13 |
| B152 | Brush | Type 7 | B15 |
| To182 | Aerial, Pumper | | Te1 |
| M112 | Ambulance | | STA |
| M122 | Ambulance | | E13 |
| STATION 3 | | | Te1 |
| Te173 | Forestry Tender | Type T2 | Res |
| E-133 | Type 1 Pumper 4x4 | Type 1 | |
| B153A | Brush | Type 6 | |
| B153B | Brush | Type 6 | |
| E183 | Brush Engine | Type 3 | |
| | Chipper Truck | | |
| | Crew Buggy | | |
| | - | - | |

| Apparatus Identifier | Function | NWCG Type | | | | |
|-------------------------|---------------------------------------|--------------|--|--|--|--|
| STATION 4 | STATION 4 | | | | | |
| M114 | Ambulance | | | | | |
| M124 | Ambulance | | | | | |
| Utility 194 | Utility, Medic Transport | | | | | |
| STATION 5 | | | | | | |
| E135 | Pumper, Urban Interface, CAFS | Type 2 | | | | |
| Te175 | Forestry Tender | Type T2 | | | | |
| STATION 6 | i i i i i i i i i i i i i i i i i i i | | | | | |
| E136 | Pumper | Type 4 | | | | |
| B156 | Brush Type 6 | | | | | |
| STATION 7 | , | | | | | |
| E137 | Pumper, Urban Interface, CAFS | Type 2 | | | | |
| B157 | Brush | Туре б | | | | |
| Te177 | Forestry Tender | Type T2 | | | | |
| STATION 8 | | | | | | |
| E138 | Pumper, Urban Interface, CAFS | Type 2 | | | | |
| Te178 | Forestry Tender | Type T2 | | | | |
| ResE | Pumper | | | | | |

Chart 8: Apparatus by Station

<u>NFPA 1720</u>

Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments

The NFPA standard contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all volunteer fire departments. Also included are minimum requirements for managing resources, incident management, training, communications, and pre-incident planning.

The standard outlines minimum performance standards for apparatus/volunteer firefighter turnout and response times. Turnout times are measured from the conclusion of the processing time (time for a dispatcher to answer the 911 call and process information to the point the volunteers are notified or dispatched) to the apparatus/volunteer going in service over the radio. The travel time is from the end of the turnout time to when the apparatus/volunteer arrives on scene and announces they are on scene using the radio.

The following chart is reproduced from the 1720 standard and outlines the minimum staffing and response time standards. Within the NFPA 1710, which sets a standard for career fire departments the standard is for a 6-minute total response time (includes process, turnout, and travel time). This time is based on two known principles using the time temperature curve and the time it takes for the brain to die after the heart stops.

| Demand Zone ^a | Demographics | Minimum Staff to Respond ^b Response Time (minutes) ^c | | Meets Objective (%) |
|--------------------------|---|--|--|---------------------|
| Urban area | Urban area >1000 people/mi ² | | 9 | 90 |
| Suburban area | Suburban area 500-1000 people/mi ² | | 10 | 80 |
| Rural area | <500 people/mi ² | 6 | 14 | 80 |
| Remote area | Remote areaTravel distance ≥ 8 mi4Direction on the second sec | | Directly dependent on travel distance | 90 |
| Special risks | Determined by AHJ | Determined by AHJ based on risk | Determined by AHJ | 90 |

NFPA Table 4.3.2 Staffing and Response Time

Chart 9: ^a*A jurisdiction can have more than one demand zone.* ^b*Minimum staffing includes members responding from the AHJs department and automatic aid.* ^c*Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table.*

EFR has Urban, Suburban and Rural areas, but does not have any areas within the district that are more than 8 miles from a fire station. EFR's district has two areas that take more time to get to than an 8 mile drive due to steep and winding roads, Bear Mountain and Squaw Pass (west of Soda Creek) and are designated as Remote. There are no special risks² within the district.

 $^{^{2}}$ Industrial, manufacturing, generally any potentially large loss due to a single event; wildland fire would be considered a large loss but is not considered in 1720.

| Count of Responses from each Station by a Unit 2016 to 2020 | | | | | | | | | | |
|---|---------|-------|-------|---------------|--------|-------|--------|----------|--------|--------|
| | Assists | EMS | Fires | Fire Alarm | HazMat | Other | Rescue | Wildland | Total | |
| Station One | 159 | 859 | 78 | 163 | 87 | 119 | 21 | 190 | 1676 | 14.8% |
| Station Two | 370 | 4103 | 131 | 473 | 249 | 324 | 37 | 257 | 5944 | 52.5% |
| Station Three | 23 | 225 | 33 | 76 | 19 | 55 | 4 | 90 | 525 | 4.6% |
| Station Four | 144 | 1500 | 21 | 38 | 31 | 18 | 19 | 63 | 1834 | 16.2% |
| Station Five | 12 | 139 | 42 | 84 | 14 | 20 | 1 | 44 | 356 | 3.1% |
| Station Six | 9 | 144 | 28 | 21 | 12 | 23 | 3 | 37 | 277 | 2.4% |
| Station Seven | 13 | 89 | 10 | 42 | 36 | 24 | 3 | 55 | 272 | 2.4% |
| Station Eight | 24 | 189 | 13 | 23 | 23 | 97 | 3 | 76 | 448 | 4.0% |
| Total | 754 | 7248 | 356 | 920 | 471 | 680 | 91 | 812 | 11332 | 100.0% |
| Percentage | 6.7% | 64.0% | 3.1% | 8.1% | 4.2% | 6.0% | 0.8% | 7.2% | 100.0% | |

Chart 10 Responses by Station 2016-2020

Chart 10 shows that incidents in station two's first due area run almost 52% of the overall incidents over the five year period. Station one runs almost 15% of the incidents. Combined their first due area cover 67% of the incidents.



Chart 11 Station Placement versus Call Volume

RISK ASSESSMENT

STRUCTURE FIRE RISK ASSESSMENT

Within the District there is a mix of light industrial, commercial, and residential structures. The industrial is generally centered on Bryant Drive with some light industrial scattered throughout the district. There is no heavy industry within the district. Most industrial businesses are based on supporting the resident population with car repair, construction, etc. There has been little history of fires in these exposures.

The commercial exposures are centered on supporting the resident population with big box stores, grocery stores, office buildings, strip malls, restaurants, etc. Most of these commercial areas were constructed in the recent past and generally these structures have sprinkler systems. The exception is the older buildings. These are generally in the downtown and core area of the district. The downtown Evergreen area has a history of destructive fires. There were large structure fires in 1926³ and in 1997⁴.

There are a few apartment/townhouse/condominium complexes scattered throughout the district. The majority are in the Hiwan subdivision, with a few in the El Pinal and downtown area. New development has taken place in the El Rancho area. There has been little history of fires in these exposures.

The highest instances of structure fires are in residential exposures. These fires occur in all types of homes from old cabins to new residences Older residential exposures have higher instances of fires, but as the homes are updated and remodeled the risk of fires has gone down. A marked increase in the size and location of the structures creates a more recent concern. Some new homes are exceeding 10,000 square feet and are constructed in areas with limited access outside of the hydrant district. Some of these newer residences are long distances from any station. These areas include the top of Bear Mountain, Squaw Pass and Evans Ranch area. These areas do not have an organized water system and require water shuttle operations. These factors increase the complexity of those fires.

| Structure Fire by Population Zone 2016 to 2020 | | | | | |
|--|-------|------------|--|--|--|
| Population Zone | Count | Percentage | | | |
| Urban | 73 | 22.1% | | | |
| Suburban | 102 | 30.9% | | | |
| Rural | 103 | 31.2% | | | |
| Remote | 24 | 7.3% | | | |
| Out of District | 28 | 8.5% | | | |
| TOTAL | 330 | 100.0% | | | |

Chart 12: Structure Fire by Population Zone 2016-2020

| Engine 1720 Performance Comparisons | | | | | | | |
|-------------------------------------|------------------------------|--------------|--------------|-------|--------|-------|--|
| Population Zone | EFR Benchmark Standard | 2016 | 2017 | 2018 | 2019 | 2020 | |
| Urban | 9 Minutes to On-Scene | 50.1% | 64.8% | 44.4% | 74.5% | 52.4% | |
| Suburban | 10 Minutes to On-Scene | 52.2% | 36.9% | 60.0% | 78.5% | 56.5% | |
| Rural | 14 Minutes to On-Scene | 53.7% | 45.7% | 57.5% | 83.4% | 64.5% | |
| Remote | 17 Minutes to On-Scene | 64.0% | 47.4% | 78.4% | 100.0% | 63.2% | |
| Out of District | 17 Minutes to On-Scene | 33.9% | 35.1% | 92.8% | 63.0% | 75.2% | |
| | Percentage of Times a Unit m | eets the EFF | R Time Stand | lard | | | |

Chart 13: Engine Performance to Structure/Fire Alarms Using NFPA 1720

³ November of 1926 the wooden structures on the north side of town from Hwy 73 to Douglas Park Road were lost in a wind driven fire for a total of 11 structure destroyed.

⁴ January of 1997 the Evergreen Hotel building caught fire and was destroyed. The buildings on either side (The Little Bear and a commercial cabin to the west) were slightly damage.

The chart percentages are based on the number of times a unit arrives on an incident within the EFR Benchmark Standard time. EFR measures turnout time (time from tone to apparatus in-service) and travel time (in-service to on-scene) based on NFPA s720 Standards⁵.

Structure Fires by Station

The structure fire's locations are not reflective (Chart 14) of the number of incidents occurring within each first due district. Station two runs 31% of the overall incidents but has only 36.8% of the structure fires. Station one runs 23% of the incidents and has 22% of the structure fires. The remainder of the stations absorb the increase in incidents. This shows the age of the structures with the majority of new growth in northern areas of the district, with older more fire prone structures in the outlying areas of the district.

| Structure Fires By Station | | | | | |
|----------------------------|-------------|-------|--|--|--|
| | 2016 - 2020 | | | | |
| Evergreen Station 1 | 78 | 22% | | | |
| Evergreen Station 2 | 131 | 36.8% | | | |
| Evergreen Station 3 | 33 | 9.3% | | | |
| Evergreen Station 4 | 21 | 5.9% | | | |
| Evergreen Station 5 | 42 | 11.8% | | | |
| Evergreen Station 6 | 28 | 7.8% | | | |
| Evergreen Station 7 | 10 | 2.8% | | | |
| Evergreen Station 8 | 13 | 3.6% | | | |

Chart 13: Structure Fires Per Station District 2016 - 2020

HAZARDOUS MATERIALS/TECHNICAL RESCUE/WATER RESCUE RISK ASSESSMENT

Hazardous Materials

The District has little hazardous materials risk. There are no industrial areas and only a single manufacturing exposure within the district, Super Seer north of Excel Energy. They manufacture motorcycle helmets. Most exposures are based on supporting the residential nature of the community. Fuel tankers for the gas stations and propane tankers for heating businesses and residences are the worst possible exposures. There are considerable hazardous materials moving along Interstate 70. The Colorado State Patrol and the Colorado Department of Transportation are responsible for any hazardous material releases on the Interstate. Jefferson County has developed a Hazardous Material Authority with Adams County to provide hazardous material response. There are some light industrial exposures along Bryant Drive, including a propane farm.

Technical Rescue

The district does not provide high angle rescue, trench rescue or confined space rescue. Trench and confined rescue resources are available through mutual aid (West Metro Fire Rescue is the nearest resource) and high angle rescue is available from Alpine Rescue.

Water Rescue

There are a few exposures with Evergreen Lake being the most likely to have a water rescue need. The Evergreen Parks and Recreation District provides a ranger that is trained in water rescue, plus the firefighters are trained in ice rescue, water rescue and swift water rescue. Bear Creek can run strong occasionally, but it is not a yearly event. The risk of a swift water rescue is low.

Severe Weather and Natural Disasters

- **Floods** In September of 2013 the District experienced a 100-year flood event in the Bear Creek and Cub Creek drainages. If the storms that hit Boulder County that year had occurred here the flooding damage could have been catastrophic to the community and to transportation. It would be safe to assume that Station one would be severely damaged and would be unusable for many months. In 1964 another flood occurred in these drainages. The storm was split between the two drainages and it was estimated at the time if the storm centered over either drainage, the damage would have been similar to the Boulder storm. The risk for a catastrophic event is high. Early warning systems are in place and the risk to life is low. There were eight deaths in the September 2013 storms along the Front Range, as compared to the Big Thompson Flood in August 1976 that killed 176.
- Tornados A tornado was spotted on Mount Evans in 2012, but the threat is extremely low.
- **Flood/Hail** Flash flooding/hail is common within the District. The District averages a severe thunderstorm every other year. These storms bring hail that can damage homes, vehicles, and businesses. During the storms, the district resources can be impacted due to high call volume.
- Wind Events Chinook winds are common, occurring in the fall, winter and spring. The average year can have up to ten events in a single fall/winter/spring. These storms can increase the wildfire danger and damage structures.
- Heavy Snow Heavy snow storms are a common problem. In March 2003, a storm dumped up to six feet of snow in 48 hours. These storms can paralyze the District, knocking down trees and power lines, collapsing structures, and blocking transportation reducing the ability to transport patients to the hospitals. During the 2003 storm access to parts of the district was impossible for many days. The National Guard provided snow cats that were able to access areas for EMS and evacuation. Jefferson County now has snow cat capability. Fire protection was severely compromised throughout the district.

WILDFIRE RISK ASSESSMENT

EFR has long recognized the increasing threat of wildfire in the EFPD. The Colorado high country had been considered immune from large wildfires with very few happening over the 20th century. The Black Tiger fire in 1989 outside of Boulder began the new era of large, fast moving wildfires in the wildland urban interface. The last known large wildfire in the EFPD was in 1924. The Elephant Butte Fire in the Upper Bear Creek Road area in 2020 burned 54 acres of private property and Denver Mountain Park property. The Blue Bell fire in 2013 burned 9 acres. Fire attack is only one component of a wildfire incident. Early notification to emergency services, efficient and effective fire department and law enforcement turnout, availability of air resources, mutual aid, weather conditions allowing for air resources, evacuation plans and implementation, along with the publics willingness and readiness to evacuate are all factors associated with a wildfire. Based on the wildland fires along the Front Range of Colorado over the last 20 years the risk of a large destructive wildland fire in the near future within the district is very high. Even a 1,000 acre fire could have a devastating effect on the area.

The EFPD has a Community Wildfire Protection Plan (CWPP) that was produced in 2007 and updated in 2020. The opening paragraph in the Introduction of the 2020 CWPP states: "This Community Wildfire Protection Plan (CWPP) will provide a wildfire risk analysis for the Evergreen Fire Protection District (EFPD). This plan will include a mitigation plan and implementation recommendations. The 2020 CWPP is a complete update of the 2007 Evergreen CWPP that addresses a changing landscape and fire science. This document is to be utilized as a tool by the community and local partners to begin prioritizing projects that make Evergreen a safer and more resilient community to wildfire." The plan identifies 26 separate neighborhood/subdivisions within the district and has rated them for wildfire risk. Of

those areas eight are rated as extreme, five are rated very high, eight are rated as high, four as moderate and one as low.

The following paragraph from the 2007 CWPP outlines the threat and how it developed: "Natural resource management policies and changing ecological conditions have converged to create hazardous fuel situations throughout the assessment area. Decades of aggressive fire suppression practices have resulted in very dense and weakened timber stands. Years of drought have further stressed the forests, setting the stage for the devastating insect and disease infestations the area is experiencing today. Shrubs have expanded into traditional grasslands, resulting in accumulating hazardous amounts of woody ground fuel. The diversity of native grasses has succumbed to aggressive nonnative species and noxious weeds. In many areas these fire-dependent ecosystems have grown unchecked by fire for more than a century. When combined with continued human development in the wildland urban interface area (WUI), the net result is any wildfire has the capacity to become catastrophic." This history has increased the threat of a devastating wildland fire within the district."

From the 2020 CWPP page 11:

"During the initial round of CWPP development in Colorado, Clear Creek County officials wanted to package up the CWPP recommendations for citizen use. They created an action plan that engaged communities could work through to keep the recommendations in the CWPP alive. Some communities began utilizing grant funding with the backing of the state certified CWPP successfully and the program began to take off in Evergreen. At the time, Fire Chief Weege was supportive of the program and Community Wildfire Protection Implementation Plans (CWPIPs) were written, based on the 2007 Evergreen CWPP."

Of 26 plan units recognized in the 2020 CWPP, 23 have working CWPIPs or are developing plans. Agreements have been signed with Jefferson County and Clear Creek County to allow mitigation work to be done along right-of-way for safer evacuation routes.

EFR has a substantial emergency vehicle fleet with wildfire response capabilities, most recently adding a Type 3 brush engine. The high wildfire RED flag days have increased annually, so volunteer firefighters have implemented staffing stations on these days to decrease response times to smoke/odor checks.

EFR hired a Wildland Fire Coordinator and a Wildland Fire Specialist to concentrate on the CWPP initiatives, CWPIP support, and to manage the fuels crew hired seasonally to work on mitigation projects. These positions are also available to respond to wildfires in the region.

| Brush Engine 1720 Performance Comparisons | | | | | | |
|--|------------------------|---------|-------|-------|-------|-------|
| Population Zone | EFR Benchmark Standard | 2016 | 2017 | 2018 | 2019 | 2020 |
| Urban | 9 Minutes to On-Scene | 54.5% | 83.0% | 73.0% | 89.1% | 50.0% |
| Suburban | 10 Minutes to On-Scene | 67.3% | 51.3% | 48.5% | 83.7% | 70.0% |
| Rural | 14 Minutes to On-Scene | 44.9% | 47.7% | 63.5% | 94.3% | 51.1% |
| Remote | 17 Minutes to On-Scene | 44.0% | 32.9% | 52.8% | 91.0% | 44.5% |
| Out of District | 17 Minutes to On-Scene | No Data | 27.5% | 64.6% | 23.3% | 72.9% |
| Percentage of Times a Unit meets the EFR Time Standard | | | | | | |

Chart 15 Brush engine performance 2016 - 2020

The NFPA 1720 Standard for engine response times is being used for brush engine response.

Colorado's Largest Wildfires

- 1. Cameron Peak 208,913 acres, 2020*
- 2. East Troublesome 193,812 acres, 2020*
- 3. Pine Gulch 139,007 acres, 2020*
- 4. Hayman 138,114 acres, 2002
- 5. West Fork Complex 109,632 acres, 2013
- 6. Springs Fire 108,045 acres, 2018*
- 7. High Park 87,250 acres, 2012
- 8. Missionary Ridge 71,739 acres, 2002
- 9. 416 54,129 acres, 2002
- 10. Last Chance 52,000 acres, 2012

- 11. Bridger 45,800 acres, 2008
- 12. Bear Springs/Callie Marie 44,642 acres, 2011
- **13**. 117 42,795 acres, 2018*
- 14. Beaver Creek 38,380 acres, 2016*
- 15. Badger Hole 33,609 acres, 2018*
- 16. Grizzly Creek 32,631 acres, 2020*
- 17. Logan 32,564 acres, 2017*
- 18. Burn Canyon 31,200 acres, 2002
- 19. Mount Zirkel 31,016 acres, 2002
- 20. Trinidad 25,385 acres, 2002

*9 of the largest 20 wildfires in Colorado history happened in the time frame of the previous EFR Strategic Plan.

COMMUNITY WILDFIRE PROTECTION PLAN (CWPP)

| Plan Unit Name | Intermix Risk Rating |
|------------------------|----------------------|
| Echo Hills | Extreme |
| Floyd Hill | Extreme |
| Beaver Brook | Extreme |
| Witter Gulch | Extreme |
| Danks Drive | Extreme |
| Little Cub Creek | Extreme |
| Brook Forest | Extreme |
| Buffalo Park Estates | Extreme |
| Kittredge | Very High |
| Bear Mountain | Very High |
| Herzman/Marshdale | Very High |
| Blue Creek | Very High |
| Buffalo Creek South | Very High |
| North Turkey Creek | High |
| Bear Creek West | High |
| Bear Creek East | High |
| Western Evergreen | High |
| North Evergreen | High |
| The Woods/Overlook | High |
| Stagecoach/Hiwan Hills | High |
| High Drive | High |
| Evergreen Meadows | Moderate |
| Fillius Park | Moderate |
| Kerr Gulch | Moderate |
| Buffalo Creek North | Moderate |
| Bergen Park | Low |

In 2020, the EFPD completed a revision to the 2007 Community Wildfire Protection Plan.

Chart 16 Evergreen Community Wildfire Protection Plan 2020, pg. 34



Chart 17 Evergreen Community Wildfire Protection Plan, Plan Units, 2020, pg. 35

EMERGENCY MEDICAL RISK ASSESSMENT

The Emergency Medical System (EMS) is based on two components, career medics and neighborhood response. The District staffs' stations 2 and 4, with two Advanced Life Support paramedics each, 24 hours a day. There are two ambulances at each station.

There are no standards for EMS response in NFPA 1720. EFR has chosen to use the structure fire standards. There are three components to the Emergency Medical response within the district, the EMS Section (full time, ALS responders), the neighborhood response (volunteer firefighters) and the Community Paramedic (Risk Reduction Response) The primary goal is to respond to medical and trauma emergencies via the neighborhood response system thus reducing actual response times. The neighborhood response is extremely efficient and provides a quicker size up and quicker initiation of patient care. Medical personnel can respond from their residence into the neighborhoods providing medical intervention prior to the EMS staff's arrival.

| Medic 1720 Performance Comparison | | | | | | |
|--|------------------------|-------|-------|-------|-------|--------|
| Population Zone | EFR Benchmark Standard | 2016 | 2017 | 2018 | 2019 | 2020* |
| Urban | 9 Minutes to On Scene | 86.2% | 85.3% | 81.8% | 83.0% | 73.90% |
| Suburban | 10 Minutes to On Scene | 86.9% | 88.0% | 85.7% | 80.0% | 80.00% |
| Rural | 14 Minutes to On Scene | 85.7% | 86.1% | 78.8% | 79.7% | 77.40% |
| Remote | 17 Minutes to On Scene | 75.4% | 78.2% | 74.0% | 83.8% | 77.00% |
| Out of District | 17 Minutes to On Scene | 77.9% | 91.8% | 92.4% | 89.4% | 75.90% |
| Percentage of Times a Unit meets the EFR Time Standard | | | | | | |

Chart 18: EMS Turnout and Travel Time *The Coronavirus of 2020 delayed responses significantly.

| POV 1720 Performance Comparisons | | | | | | |
|--|------------------------|-------|-------|-------|-------|-------|
| Population Zone | EFR Benchmark Standard | 2016 | 2017 | 2018 | 2019 | 2020 |
| Urban | 9 Minute to On-Scene | 77.2% | 84.9% | 73.8% | 65.9% | 77.3% |
| Suburban | 10 Minute to On-Scene | 82.6% | 84.0% | 85.1% | 63.2% | 75.8% |
| Rural | 14 Minute to On-Scene | 77.8% | 79.1% | 91.2% | 64.3% | 81.3% |
| Remote | 17 Minute to On-Scene | 83.6% | 72.2% | 93.9% | 64.2% | 76.0% |
| Out of District | 17 Minute to On-Scene | 77.0% | 91.2% | 93.6% | 76.2% | 89.2% |
| Percentage of Times a Unit meets the EFR Time Standard | | | | | | |

Chart 19: POV Firefighter Response, Turnout and Travel Time

There are three levels of EMS intervention:

- 1. Emergency Medical Responder (EMR) is an advanced first responder certification for volunteer firefighters, taught as part of the EFR academy.
- 2. Basic Life Support (BLS) provided by volunteers certified as Emergency Medical Technicians.
- 3. Advanced Life Support (ALS) provided by Paramedics.

The primary goal of the EMS Section is to provide Advanced Life Support to both the medically ill and traumatically injured patients using a philosophy that patient care is one of appropriateness. We strive to be appropriately conservative, yet appropriately aggressive when the situation calls for it, remembering that every intervention, primarily pharmacologic and procedural, has risk for complications. Thresholds for action must correlate to the degree of acuity, and the benefits to the patient versus risks of the intervention. While our goal is on patient care, our focus is on caring for people.

The EMS division continues to staff only Paramedics allowing us to maximize the Districts EMS coverage. We do so by providing Paramedics the opportunity to split (when possible), utilizing the volunteer staff to drive during patient transports thus keeping the other Paramedic in district to staff the second and at times third and fourth ambulances. This design not only ensures medical protection for the district but is a cost saving design as well. By ensuring an ALS provider remains in the district the majority of the time we have nearly eliminated the need for mutual aid response on medical calls and have thus reduced the need for additional staffing.

National Fire Protection Association Compliance

As the districts population ages and Evergreen continues its pattern of growth, medical responses will likely increase. EMS responses have doubled from just over 700 EMS calls a decade ago to now over 1500. Approximately 65% of those calls resulted in hospital transports. Of the total EFR calls for service 58%-60% are medically based. In addition, 5% of the overall calls for EFR, which are classified as service calls, are for our Community Paramedic division. Nonemergent calls for service have increased significantly and are projected to continue to increase.

The implementation of the Evergreen Fire/Rescue Community Assistance Referral and Education Services (ECARES) has likely decreased some 911 calls but has taken both the Evergreen and the Kittredge zip code and significantly reduced the elderly falls percentage within those zip codes taking them out of the top 10% in the county.

The EMS Division staffs two of four ambulances at all times. The two crews are split into the northern and southern end of the District, with the dividing line being Bryant Drive. While the call for service can vary hour-to-hour and day-to-day the call volume over the past few years has been balanced between the two stations. Delay in response occurs when multiple calls are taking place simultaneously. Crews are at times forced to overlap each other's service area, which creates delays. Attempting to manage this would increase staffing and be somewhat problematic; another reason the neighborhood response is so valuable. One of our biggest challenges in managing our system is maintaining system status. By not having the ability to transport patients to a local hospital, call times are long. The average call, including transport, from the initial call until the ambulance is back in district is a minimum of 90 minutes. This does not include the time for documentation or decontamination, which has played a significant role in turnaround times in 2020. To combat extended call times, we changed our destination policies and only transport to St Anthony's, our closest hospital, Lutheran and for pediatric needs, Denver Health. This has made a tremendous difference in our out of district time thus shortening the overall call times.

The other bonus is the system design of splitting crews ensuring one Paramedic remains in District the majority of the time. It should be mentioned however that this design is totally dependent on the willingness of the volunteer firefighters to donate (at a minimum) 90 minutes of their time to drive us to the hospital. The value of this cannot be overstated, as these blocks of time are a lot to ask of volunteers. Because of their dedication, over the past 2 years we have been able to split crews over 150 times each year, practically eliminating the need for mutual aid. This type of dedication assists in ALS coverage for 3rd and 4th out calls almost as quickly as first out calls. Mutual aid agreements are still in place however and would be utilized in the event the system becomes overwhelmed.

Using EMR is the key to the success of our EMS system. The firefighters are trained and certified by the Paramedic staff during their probationary period. They can initiate basic care, i.e., assessment, CPR, bandaging and splinting, oxygen, Automatic Defibrillator (AED) etc. and are extremely valuable to our system.

To maintain this program, the District will strive to:

- Have an EMR on scene within five minutes on 90% of the incidents. (*Charts 18 and 19, Page 26-27*)
- Provide an ALS response within 5 minutes on 90% of the incidents.
- Maintain the FREE CPR training and AED program for the public, schools and others interested in learning.
- Provide a quality management program to ensure appropriate response times and training for medical personnel.

STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS (S.W.O.T.)

S.W.O.T. is used to determine where we will focus additional efforts.

| STRENGTHS | WEAKNESSES | OPPORTUNITIES | THREATS |
|------------------------------|----------------------------------|----------------------------------|--------------------------------|
| Customer Service | Apparatus driver availability | Expanded risk reduction programs | Effective firefighting force |
| Community Risk Reduction | Community outreach/education | Community outreach/education | Expenses exceed revenue |
| Mutual Aid/Auto Aid | Fire Ops: Retention | ECARES | Complex district |
| Regional collaboration | Staffing model | EMS Volunteer Program | Larger structures |
| Funding | Advanced Certifications | 5th Ambulance | District exposures |
| Community support | Engine Response | Keeping pace with technology | Lack of cohesive divisions |
| Collaborative Team | Physical fitness | Stop the Bleed education | Large incident recovery |
| Strategic Planning Process | Lack of preplanning | Funding Sources/Grants | Increasing WUI |
| Public Relationships | Special event staffing | Expanding Peer Support Program | MCI |
| Peer Support | Revising SOGs | Wildland fire division | Lack of preplanning |
| SOGs | Multi-divisional risk reduction | Unique Training/Simulated Fire | Community Evacuation |
| ECARES | Wildfire advanced certifications | Station 1 | Aging Population |
| EMS System | | Division Ops Chief | Historical community buildings |
| Staff Experience Levels | | Turnouts development | Increasing call volume |
| EMS fire driver program | | Volunteer FF system additions | Large wildfire |
| EPAD – EFR collaboration | | Growth of CIHC Program | |
| External Relationships | | Expanding EMR cadet program | |
| Keeping pace with technology | | | |
| Prevention Staffing | | | |
| Turnouts Auxiliary | | | |
| Volunteer System | | | |

| Apparatus/Equipment | | |
|----------------------------|--|--|
| EMR Cadet Program | | |
| Training availability | | |
| Cohesive between divisions | | |
| FF neighborhood response | | |
| Development of Fuels Crew | | |
| Chart 20 SWOT Analysis | | |

Chart 20 SWOT Analysis

ACCOMPLISHMENTS 2015-2020

Fire Operations

- Reduced engine response times by implementing a firefighter residence program at Stations 1 and 2 as well as encouraging shift coverage at Stations 1 and 2.
- Implemented a Fire Duty Officer program to manage daily response. •
- Reduced ISO ratings from a 5, 6, 10 split rating to a 3, 4, 10W split rating. •
- Implemented advanced training requirements for water rescue. •
- Revamped the recruitment and interviewing process for new volunteers to assist with retention.
- Investigations management moved to the Fire Marshal's Office. •
- Implemented an effective mentor program and individual development plans managed by the officer corp.
- Electronic fire pre-plans implemented utilizing a web-based software. •
- Transitioned to a web-based fire reporting system. •
- Purchased new self-contained breathing apparatus.
- Upgraded the extrication tools on Rescue 141, purchasing a battery powered spreader, cutter and ram. •
- Expanded the availability of gas meters by purchasing additional five-gas devices for each engine. •
- Purchased a second heavy tender with 4,000 gallons of water capacity to replace a smaller unit. •
- Implemented Inter-Governmental Agreements for expanded mutual aid and auto aid from surrounding • departments on wildfire, structure fire and EMS emergencies.
- Testing of private water cisterns was implemented to annually validate their availability. •

Wildfire Risk Reduction and Response

- Hired a Wildfire Coordinator and a Wildfire Specialist.
- Updated the Community Wildfire Protection Plan (CWPP).
- Hired a seasonal fuels reduction crew/wildfire response team. •
- Expanded the Community Wildfire Protection and Implementation Plan (CWPIP) project. •
- Partnered with Elk Creek Fire on a property assessment program. •
- Purchased a chipper, chip truck and crew vehicle for the fuels crew. •
- Implemented chapter 5 of the Wildland Urban Interface building code into the Jefferson County Fire Code. •
- Purchased a type 3 wildfire engine.
- Improved engine response times by staffing stations during Red Flag days. •
- Received grant funding to support risk reduction initiatives. •
- In 2020, fuels crew completed 43 acres of fuel break, and visited 349 homes for slash chipping.

Emergency Medical Service

- Partnered with medical providers to develop and implement ECARES program and Mobile Integrated Health. •
- Successful continuation of the cadet program.
- Mobile Data Terminals (MDT) added to ambulances and command vehicles. •
- Expanded mutual aid agreements utilizing closest resource regardless of jurisdiction. •
- Expansion of the CPR classes and partnership with Evergreen Public Access Defibrulation (EPAD) with now • over 90 AED's throughout the EFPD.

- Expanded multi-agency training on MCI and active shooter incidents hosting a large scale training at Evergreen High School.
- Purchased Power Cots for ambulances.
- Improved the Continuous Quality Improvement (CQI) process.
- Stop the Bleed training implemented.
- Reduced overtime expenses utilizing part timer paramedics and an additional floating part time/full time paramedic.
- Transitioned to a new electronic patient care report system.
- Transitioned to a contracted patient billing service increasing returns on invoicing.

Fire Prevention

- Community Connect implemented (risk assessment tool).
- Expansion of Mountain Fire Marshals to Jefferson County Fire Marshals.
- Residential fire sprinklers in high-risk areas.
- Adoption of the 2018 ICC Building Codes.
- Creation and adoption of Appendix Z into the Residential and Building Codes to begin addressing wildfire threat to buildings.
- Updating of Prevention standard operating guidelines (SOG).
- Annual fire/life safety inspections of commercial properties within the district with the goal to inspect 95%+.
- Implemented inspection software eliminating paperwork, additional data entry, and allowing for live updates to building pre-plans.
- Implemented drawing review software allowing paperless construction drawing review.
- Community Risk Reduction program initiated.
- Installation initiated of bi-directional amplifiers (BDA) in commercial buildings and schools performing renovations to improve radio communications.

Administration

- Expansion of the Employee Assistance Program (EAP) including a multi-agency Peer Support Program.
- Expansion of the VHF radio network to a multi-agency command and dispatch channel for interoperability.
- Hiring of a Division Chief of Fire Operations to lead fire operations.
- Upgrading the computer network and implementing cyber-security measures.
- Updated the electronic file room and scanned documents (paperless).
- Completed the transfer of the Evergreen Meadows property, donated to EFPD in 1972, to the Evergreen Park and Recreation District after having the "fire house" restriction removed.
- Transitioned EFR dispatch services to a consolidated county wide dispatch center, Jeffcom.
- Purchased a solar panel system on the maintenance, station 2 and administration buildings to reduce energy costs.
- Joined Colorado Employers Benefit Trust (CEBT) to reduce health care costs and increase employee benefits.
- Changed the employee 401a/457 retirement plan provider, reducing fees and increasing employee options.
- Creation of an auxiliary volunteer group for support of all divisions named The Turnouts.
- Acquired property at 5071 Hwy. 73, 28648 Buffalo Park Road and 5111 Hwy. 73 for the site of the new Station 1.
- Organized, planned, and executed a multi-agency mass casualty, active shooter exercise at Evergreen High School.
- A Public Information Officer (PIO) group was formed in partnership with other fire departments to better inform our communities of emergency events. The Fire Information Duty Officer program was developed to work alongside the Sheriff's Office and our media partners. EFR has developed this into a Public Affairs

team tasked with internal and external communications for the District utilizing social media and other communication mediums to educate, inform and notify our followers of emergency situations and events.

Maintenance

- Expanded contract vehicle maintenance services.
- Implemented a fee schedule for facilities use.
- Returned to a full time Facilities Technician model for building and property maintenance.
- Created and hired a Compliance Technician to manage monthly inspections of apparatus, SCBA maintenance, multi-gas meter calibration, small engine repair, annual extrication equipment inspection, extinguisher management and other duties.
- Annually updated the long term financial planning schedule for apparatus. facilities and capital tools and equipment.

THE STRATEGIC PLAN

Over the years EFPD has developed and implemented strategic plans that help us meet the changing needs and projected growth of the community. Through the comprehensive development of a Standard of Cover and Risk Assessment, we have defined a strategy to carry us forward beyond 2025. We continually refine the services we provide to the community in response to both external and internal factors of our economy, regulatory agencies, an evolving technological environment, and demographic composition.

Planning Assumptions

- Demographically the population of Evergreen is aging as it is in other locations based on the "baby boom" population that has now begun to reach retirement age and the planned new construction of assisted living facilities.
- The increase in population, residential and commercial structures, wildfire threat and community risk reduction programs may require additional staffing to manage.
- Population and call volumes are projected to increase.
- Projections indicate that revenue will fluctuate.
- Volunteer firefighter recruitment and retention will continue to be strained as the requirements of the community become more complex, requiring additional training and qualifications.
- To maintain the neighborhood response model for volunteers, gaps of firefighters residing in a good distribution within neighborhoods must be maintained.
- With fire growth time shortened due to highly combustible materials used in construction and other fire loads in buildings, engine response times must decrease.
- EFR will endeavor to maintain volunteer firefighter staffing while improving the level of training and service.
- It is recognized that the administrative staff will be required to absorb more responsibilities that are currently within the duties of the volunteers. Staffing levels for administration may have to increase to absorb the additional duties.
- Wildland fire is a risk to the community as Evergreen resides in the Wildland Urban Interface (WUI). This risk has a high probability with high consequences.
- Alternative revenue sources to meet the needs outlined in this plan must be identified.
- Residential structure fires will continue to become more complex to fight as homes within the district increase in size and are built with and occupied by highly combustible materials.
- Commercial and high occupancy building structure fires are a high risk, low probability occurrence with high consequence as development in the area continues.
- Emergency medical response reimbursement/ collections from Medicare/ Medicaid is uncertain as laws change and fire department leadership nationally strive for improved reimbursement.

- Station 1, built in 1965, and located in the District core, has become untenable with the widening of Highway 73 by Jefferson County and the age of the building. A new station will be located at 5071 Highway 73 on the property formerly occupied by Mountain Market. Design and funding for the project will be undertaken with the goal of completion during this strategic cycle.
- Station 4 will require upgrades. With the construction of a new Station 1, EMS from Station 4 will move to Station 1 and Station 4 will be repurposed as a Wildfire Fuels Crew station.
- Radio communication will continue to evolve as alternate methods of communication made available through advancing technologies become available.

STRATEGIC INITIATIVES

FIRE OPERATION

Over the past five years, the call volume has increased approximately 10%, from 2139 calls in 2014 to 2380 calls in 2020. Additionally, this trend reflects an increase in the percentage of fire calls (e.g., 60% EMS / 40% fire related & other in 2020). This increase in the call volume and percentage of fire related calls are anticipated for the next strategic period.

Volunteer membership has fluctuated over the years as new members join and tenured members resign or retire, but overall, the membership health is steady. Going forward, the goals of fire operations will be in the spirit of providing exceptional service to the community, recruitment, retention, evaluating and improving operations.

Structure fire response and tactics – The three priorities on any fire, in this order, are life safety, property preservation and incident stabilization. Changes in construction techniques and materials have made structure fires far more dangerous for both the inhabitants and the firefighters. Items inside of these structures, and the materials they are made of add to the fire load and the hazard as the toxic gases and heat load produced by the materials increases. EFR, through the utilization of the live burn training building, shall continue to adapt trainings to include tactics that allow for aggressive fire attack, but stay true to the three priorities, most importantly, life safety. EFR shall continue to supply the firefighters with the equipment and training required for their safety and to still fight fire.

The SOC identified that engine response times do not meet NFPA 1720 standards. An adaptation of the standard is necessary as the standard does not account for firefighters responding from home to the fire station for apparatus nor the number of apparatus and personnel needed for fires outside of the hydrant areas of our district. A balance must be achieved to ensure timely engine response coupled with the neighborhood response model. Measuring performance will be completed utilizing the Critical Task Analysis and Effective Firefighting Force created and the Key Performance Indicators (KPI) set by the division's leadership. The KPI's will include measuring engine response times, firefighter response, rolling order and additional tones for personnel. EFR will continue to track apparatus response times and set benchmarks that improve performance. The benchmarks will be reported periodically (e.g., quarterly) in order to ensure continuous improvement and/or adherence to the goal. The fire department will change the model if response times cannot meet the benchmarks set (e.g., expansion of the residency program, staffing of stations, etc.).

Critical Task Analysis/Effective Response Force – The critical task analysis (CTA) evaluates tasks necessary at the emergency scene to ensure life safety, incident stabilization, and property conservation. This evaluation includes the tactical operations the Department performs based on the historical incidents and community expectations. These operations include structural fires, emergency medical service, and wildland fires/urban interface fires. These incidents were identified using the risk assessment within the Strategic Plan and on historical response.

Firefighter safety and survivability of the victims is the first priority at all incidents.

Critical tasks were identified, and minimum staffing assigned, to accomplish said task.

This evaluation is based on the Evergreen Fire Rescue (EFR) standard operating procedures and standard operating tactics. From this data a Critical Task Analysis (CTA) was performed to assign how many firefighters were needed to complete the task. From that data EFR was able to determine an Effective Response Force (ERF). The ERF is the number of firefighter's necessary on-scene to mitigate most emergencies. It is understood that not all emergencies will be fully mitigated, and some may escalate beyond the ability of the ERF.

The following is the proposed minimum staffing and performance standards. The minimum staffing is based on the CTA/ERF:

| Demand Zone | Structure Fire ERF | Demographics | |
|----------------|-----------------------|------------------------------|--|
| | | Urban: >1000 people/mi | |
| Urban/Suburban | 17 | Suburban: 500-1000 people/mi | |
| Rural/Remote | 24 | Rural: <500 people/mi | |
| | | Remote: Extended travel time | |

Chart 21: Minimum Staffing

Recruitment and retention – The requirements of being a volunteer firefighter continue to be one of the issues that, nationally, has made recruitment and retention exceedingly difficult. The number of volunteer firefighters in the United States continues to drop. EFR is interested in attracting the right candidates to the department who can commit for the time period that allows them to become experienced and allows for a return of the fire departments investment. Fortunately, EFR has the opportunity to recruit from a community that is willing and able to commit to the fire service. In the past five years, the number of recruits has dropped. Over the last two years, the recruitment and interviewing process has gone through a change with the emphasis on inviting potential firefighters to the academy based on their potential ability to perform the mental and physical requirements of the profession as well as commit the time required.

A key retention tactic will be the implementation of a program to allow experienced firefighters to define themselves as a hazard response specialist. EFR will remain an all hazards department while allowing a specific number of reserve members to select one, or more, of the hazard response teams below.

- 1. Driver Engineer
- 2. Rescue
- 3. Interior Structure
- 4. Exterior Structure
- 5. Wildland

An analysis of the areas of the District, and hazard response team membership, will be regularly performed to ensure proper response times and number of personnel.

Create a high-performance culture – The fire department must recognize the changing environment and act upon it. Constant evaluation, planning, testing and reevaluating is necessary in order to not fall behind changing community needs, protocols and best practices. Continuous improvement requires continuous change.

Opening up the reserve program to hazard response specialist enables experienced firefighters to be utilized to the best of their ability, and availability, by allowing them to focus on their area of expertise.

Wildfire response – EFR's first wildland firefighting priority will be life safety; considering evacuation based upon current and expected fire behavior. The next priority will be to safely locate and extinguish the fire before it can become significant.

EFR encourages mutual aid response to wildfires as well as deployment to wildland fires outside of mutual aid

agreements in Colorado and nationally. The experience gained on these large state and national fires is brought back and utilized locally. EFR will continue to keep a limited number of apparatus available for deployment.

Deployment requires nationally recognized certifications. EFR will continue to encourage firefighters to complete these advanced certifications, such as Squad Boss, Engine Boss, and Strike Team/Task Force Leaders. The experience gained by the completion of these certifications can be utilized on local fires. A type 3 wildland fire engine was purchased in 2020 to be utilized in the District as well as to be deployed to fires around the nation. Firefighters can gain experience on large fires by deploying with the new engine.

The completion of task books for these advanced certifications requires the firefighters to work actual wildfires. National deployments require a minimum of a two-week commitment, which is difficult for volunteer firefighters who hold full time employment in the civilian sector. Seasonal employment of an Engine Boss, who can deploy with firefighters, allowing those firefighters to get the certifications and experience required, will be implemented via the Fuels Crew Module. These employees, when not deployed, can be contracted to the community to complete mitigation projects. The expansion of agreements with other departments in sharing personnel is another avenue of allowing firefighters to get the needed experience. EFR currently has agreements with two agencies and one nationally listed single resource to take the position of Engine Boss on an EFR truck, allowing the truck and personnel to deploy.

Continued training with our neighboring fire districts and larger urban fire departments is also imperative. A large wildfire requires a large commitment of resources. Mutual aid agreements are being updated and EFR participation and hosting of multi-agency trainings will continue.

Additional certification requirements on the Volunteer Firefighters – Each certification requires time and effort from the firefighters and funds from the department. While we want our firefighters to be the best possible for the community, certifications should be obtained on a "frequency/severity" basis. EFR will continue to evaluate the type and level of certifications needed by our district.

An example of the "frequency/severity" theory is Hazardous Materials (Haz Mat) Technician vs. Haz Mat Ops certification. Yes, the department could require "technician" level certification, but it is not necessary as hazardous material calls that require a "technician" level response are low frequency and there is a mutual aid Haz Mat team available through Jefferson/Adams County and the Colorado State Patrol. All firefighters are required to be certified as Haz Mat Ops.

Other Disciplines within Fire Operations

Rescue Response – Rescue has been divided into three teams:

- 1. The Rescue Team, which participates in medical response and low angle rope rescue.
- 2. The Auto-Extrication Team
- 3. The Water Rescue Teams, which participates in swift water, cold water and ice rescues.

An analysis of the disciplines within the teams will be completed periodically, to determine if the service being provided to the public meets the needs, as well as to determine if any discipline is no longer a necessity. In a prior strategic planning cycle, for example, the Dive Team was found to be extremely underutilized and was eliminated as a rescue discipline.

Each team will implement a continuous improvement program to ensure use of best/safest equipment and practices. For example, highway and roadway safety will be analyzed to ensure proper safety procedures and apparatus are being used to keep personnel on an emergency scene safe.

Emergent Driving – Driving emergent continues to be one of the more dangerous activities for emergency responders. EFR will continue to ensure personnel responding to emergencies in their privately owned vehicles do so in a safe manner for themselves and the safety of the public by requiring driver training and enforcing the laws governing POV emergency response. The emphasis of this program is on the safe arrival of responding personnel. **Driver Engineering** - EFR must maintain an effective number of driver engineers for each level of apparatus. A continuous improvement Driver Engineering program should be implemented to ensure adequate participation and to maintain a level of qualified operators required for an effective and efficient emergency response following the rolling order as described in the Standard Operating Guideline (SOG).

Officer Development – The Fire Department will continue to improve its system of officer training. Officer positions carry a great deal of responsibility. Fire ground experience will not be the only means to measure the ability of an individual to lead. A training program to prepare potential officers for the position has been defined and implemented; continuous improvement practices will also be applied. Training programs and certifications offered by the Division of Fire Prevention and Control, Colorado State's Fire Chiefs Association, and other organizations have been integrated into the program (e.g., Fire Officer I, COLS, etc.). In addition, applicable industry leading strategies and tactics have been incorporated (e.g., Blue Card, Nozzle Forward, etc.).

The Fire Duty Officer program will be continued to ensure a point of contact and adequate coverage for the district.

Firefighter Development – The Fire Department will continue to improve its system of developing firefighters. Trainings will be offered utilizing the Primary, Alternative, Contingent, Emergent (PACE) method in order to ensure skills and knowledge that exceed minimum expectations. Individual Development Plans (IDPs) will be utilized to document and manage development. Tiered, skills based, minimum physical requirements will be defined and managed on a periodic basis.

Mutual Aid Agreements - Operating agreements with other emergency service organizations within and surrounding the District currently supplement services provided by the Department. In addition, the District has signed agreements to provide Mutual Aid services to Clear Creek, Indian Hills, Elk Creek, Inter Canyon, Genesee, and Foothills fire districts. These agreements should be reviewed and updated as required to best utilize the support of our neighboring districts. Currently, a program is implemented to include auto-aid and mutual aid support with the closest agency. Opportunities for improved response to areas of our district will continue to be evaluated for future agreements.

Water Supply – The Fire Department will continue to improve its water supply system by identifying gaps in the available cistern system. A cistern is planned for the Echo Hills area during this planning period. Private cisterns have been tested annually and agreements must be developed with the owners of these cisterns to allow continued testing and training by EFR with maintenance and water levels to be maintained by the owner.

EMERGENCY MEDICAL SERVICE

EMS Revenue - EMS has never been in the black for EFR and this is not a new problem for most fire departments. Traditionally our rate of return has been 40%-50% of our billable EMS calls. Transitioning to a 3rd party biller has proven to be positive for the organization. Not only did this increase our rate on returns it also decreased the workload at the administrative level.

We will also seek revenue streams as we move to increase the ambulance fleet from four to five ambulances in 2021 by occasionally making available that 5th ambulance for wildfire deployment. Currently there are two EMS medics certified to deploy and fire operations EMTs are also eligible to staff an ambulance and deploy to wildfires.

As Community Integrated Health Care (CIHC) grows and we can show the effectiveness of our service, we will seek available opportunities to bill insurance companies for this service. Currently there is one private biller that will reimburse, and once Medicare recognizes the importance of telemedicine and CIHC they are expected to provide reimbursement also.

Evergreen Community Assistance Referral & Education Services (ECARES) - Having completed a comprehensive and dynamic community risk assessment since early 2018, our integrated community health care, wellness and prevention program has played a significant role in filling needed gaps in the community. Transportation still proves to be a challenge for our elderly community but the significant reduction in falls among the elderly

demonstrates efficacy in the ECARES program. Both the Evergreen and Kittredge areas have fallen out of the top ten area codes for falls in Jefferson County since the program began. Currently we have not found a way to measure the extent our ECARES visits have reduced EMS and 911 calls, but the likelihood is high given that EMS call volume has since dropped by about 10%. ECARES makes over 200 contacts each year both in person and via phone to follow up and reach out to the elderly in our community.

It is important to note that our paramedics often attend on ECARES visits and if a 911 call should drop, they cannot leave for that call. This has the potential to put a strain on the 911 system, especially if multiple 911 calls should fall, and will require adjustments to the program as we start to see the volume of ECARES visits increase. This strain could lead to the need for additional staffing or alterations in responses. This may also provide opportunities for volunteer medical staff.

EFR, through the Community Assistance Referral & Education Services (CARES; state of Colorado parent organization), provides services to the disabled and elderly in fall prevention, food insecurity, assistance with transportation, as well as other things we can teach them or to help them find the services they need to continue to live in their home safely and reduce the risks.

This program is very well received by those we have served, and other community services and expansion of this program will remain a priority of EFR to meet the needs identified with a focus on local clinics and primary care physicians.

Community Integrated Health Care (CIHC) - The people it has served to date love Community Integrated Health Care. It was developed as a component of ECARES to assist community members at a lower acuity non-911 level providing in home clinical care when needed. The vision is to fill the 24-48 hour gap from hospital discharge to the time when in home care is provided through the patient or clients insurer. EFR became the fourth organization in Colorado to be certified as a Community Integrated Health Care Service in 2019 and is expected to have exponential growth over the years. EFR needs to anticipate resources/ personnel/ equipment/ advertising/ training, etc. At present Annie Dorchak, John Lock, and Mike Sivertson are all nationally certified as community paramedics. They take referrals for in home health care assistance (wound care, hospital discharge, etc.). ECARES also gets referrals for in home visits.

Telemedicine is on the brink of being a significant resource for physicians and as CIHC visits continue to increase and become more and more of a resource for Primary Care Provider's in our community, the acquisition of tele-med equipment will be attractive to healthcare providers.

Given this program is still a startup, with aggressive groundwork on community education and outreach, it can and will succeed.

EMS Staffing - EFR continues to be competitive in the marketplace to ensure not only that we are able to hire seasoned veterans but that we're able to retain those we have had for many years. Our process of hiring seasoned and experienced paramedics gives both EFR and the community the confidence they are being cared for at the highest level. We continue to maintain a division of over 400 years of service in EMS (22 years on average). This experience gives us the confidence to split the Paramedic crews knowing that each Paramedic can manage the worst of the worst cases by themselves for an extended period. This program only works if you have the personnel available. This staffing plan provides the Evergreen community and EFR the luxury to allow paramedics to split crews during high volume periods and weather events. Combine this with a community response structure of EMR certified firefighters throughout the district that are frequently on scene quickly, occasionally prior to the ambulance, and they have the training to provide immediate care.

As the community continues to grow and the system becomes increasingly busy, we will explore additional opportunities to keep paramedics in the district during our busiest times. (i.e.: a fifth ambulance, a volunteer medical program, day shift EMS paramedics after a volume evaluation)

An additional challenge that has proven to be a regular occurrence is having a medic out for injury somewhat regularly each year. After 10 + years of alternative means of staffing, the implementation of a part time/full time paramedic has proven to be a success. This has taken some of the overtime burden from the full-time medics, reduced our part time paramedic staff and played a significant role in reducing our EMS overtime budget. We will evaluate if there is a need for another part time/full time medic to further assist in overtime expenses and coverage.

EMS Staff and Firefighter Training - Training for EMS is extremely important as the standard of care changes due to advancements in medicine. Over the past few years our training has been adequate but can always be improved. As one can imagine, training for the 2020 year was significantly different, with limited in person opportunities, especially for skills-based education. We have the good fortune of regular monthly education provided by St Anthony prehospital services. In these sessions, we have started to see more education from the same emergency doctors to whom we transfer our patients. We will take advantage of the 400+ years of experience within our staff and start more regular on duty trainings, occasionally utilizing our metro physician's resources here also. Classes outside the local area are always a challenge, not only in time and travel, but budgetary as well. EFR is dedicated to our staff and encourage conference attendance outside of the St Anthony system. We will take advantage of more opportunities for education from beyond the Denver metro area in the years to come. A challenge with using local or staff personnel for all training is that our practices become stagnant with the same information. It's extremely beneficial to learn what other parts of the country are doing. Learning new aspects of our field are a key to future success and patient outcomes. It is recommended the District assist Staff/EMT's or EMR's who would like to advance their level of certification. This proactive approach will not only improve performance but should also decrease EFPD liabilities and allow us to remain current with evolving industry standards.

We are fortunate to have paramedics like Captain Roderick who has done a phenomenal job over the past six years teaching the probationary firefighter Emergency Medical Responder (EMR) class. There is a significant benefit to teaching our own when they are new. We can develop these new recruits directly into our system, teach them system and Denver Metro protocols, and build relationships. We have excellent support from fire ops with assistance teaching this class and on duty medics are also able to assist, especially on skills days. We also continue to evaluate the need for an internal EMT class and the possibility of opening this up to the public or cadets.

Multi-Causality Incident Training - EFR has been diligent in both EMS and some of Fire Ops receiving regular MCI and Active shooter training over the past 10 years. Our department has great core knowledge of response to these events to include transport and triage, communications, staging, and roles of law enforcement and Jeffco R1. We can improve at recruiting more of the Fire Ops officer core to attend these trainings. With regular attendance from a small percentage of the officers we need to start to be aggressive with this training on a regular basis. With a full officer slate, we have the opportunity for a large group of leadership to build training and response for these events.

With the growing number of Active shooter threats throughout our country, we have been fortunate to have in house and local educators to help us take a proactive approach to a possible event. With the Active shooter training comes MCI training. These events are low probability high acuity events that we can never be prepared enough for. MCICS 200 training is a class EFR would benefit from having its officers and all of the paramedics take in the next 5 years as well as attend regular training s for Active shooter both within our organization and outside in our RETAC as they offer these opportunities.

Evergreen Public Access Defibrillation (EPAD) - EPAD adds another facet of first response and education to the Evergreen Community by working closely with Evergreen Fire/Rescue. A local 501c(3) formed in 2002, to strengthen E.P.A.D.'s mission of placing AED's and teaching CPR to as many within our community as possible at a very

minimal cost to the student. To date E.P.A.D. has placed 90 AEDs in Evergreen and some in surrounding communities. Training 700+ mountain area residents in CPR and AED use gives us that many more trained eyes in the field in the event of a sudden cardiac arrest emergency. We will continue to maintain our community awarded 5-heart recognition from the National Heartsafe Foundation and emphasize when teaching classes to get our students registered with our public notification program AED Link.

Continuing the working relationship between EFR and EPAD in the years to come is paramount to help keep our community "Heartsafe". We will continue to pursue a regular funding source for EPAD to maintain the program plan moving forward.

As EPAD continues to grow, the work volume becomes more challenging in all aspects of administration, CPR instruction due to lack of commitment from the instructors, the number of classes, and the routine upkeep and maintenance of the units. Online education is actually a good resource here given once an online class is completed; the student simply needs to complete a skills evaluation.

More expansion is available in our public notification component (Atrus). We have only 100 registered responders from the public but need to advertise this response plan more. Activation of participants has been greatly reduced after CPR classes were cancelled for most of 2020 and we lost more public responders than we gained. Options for advertising and different programs can be researched in the years to come to keep the public response when we need them for sudden cardiac arrest events.

The fundraising component of EPAD will inevitably fade away as happens with 501c(3) organizations. Coming up on the 20th year of the golf tournament fundraiser, this event has been incredibly successful at funding the program. Alternative funding ideas will be mandatory in the years to come to maintain this important and successful community program.

Public Education (CPR, Stop the Bleed, Fall Prevention) - For many years 600 + students has been the standard for our public outreach CPR program, which was provided at little to no cost to the student. This combined effort with Evergreen Public Access Defibrillation has helped certify thousands of students, businesses, and individuals in our community through the years. Having CPR certified people on scene early is paramount in the American Heart association chain of survival and we have seen positive outcomes many times through the years with CPR certified people on scene. This too was affected by 2020. We have offered online CPR with in-person skills evaluations as we were able but will return to in person CPR classes in 2021. Public CPR has proven to be a lifesaver for those who experience SCA in public. We have also started to see an interest in "Stop the Bleed" classes. As guidelines for social distancing lift over the course of the 2021 we will start to re-implement both educational opportunities to the public.

Some hurdles with public education are the burnout and class volume some of the instructors' experience. It seems we often see the same 15% of the instructors teaching the classes. Without more people willing to participate in teaching community education, we are at risk of these classes and community outreach becoming more of a challenge to teach and to thrive.

These classes plus fall prevention and medication management are only the beginning of what will inevitable be a solid foundation to a Risk reduction program. Community educations programs are a valuable piece of our community service and a tremendous way for us to give back. Research based studies have proven that without an AED or trained CPR responders near by a heart attack victim, the chances of survival decrease by 10% for every minute they are unconscious and unresponsive. Our community is a safer place because of programs like CPR and Stop the Bleed where time is critical for survival of the patient.

Cadet Program - The cadet program is an opportunity to introduce our community youth to the medical field with an early head start on their area of interest. It is an investment in both the future of EFR participants but also the medical field. We incorporate it with an existing program while the probationary firefighters are taught EMR during

their academy. We have seen multiple cadets from previous year's return both to EFR as a volunteer or to other departments in the area for various jobs, volunteer firefighter, EMS professionals, and dispatchers to name a few.

As the program grows so do the number of applicants to the program with a record 11 applicants in 2020. Given this class is offered in conjunction with our probationary firefighter EMR class, we can offer the class at no cost to the student. If we continue to see a high level of interest and have a limit on the number of attendees, we will need to recruit more instructors to help teach or offer the class at a cost to the cadets and hold the class separately from the fire academy.

Medical Equipment - As expected the cost of ambulance equipment and supplies continue to rise. We are extremely diligent in our attempts at keeping costs down through shopping the market and using multiple venders for our supplies, and we maintain excellent working relationships with our suppliers. It is a privilege to be consistently successful at procuring top of the line medical equipment and supplies and having such experienced medics to use this equipment.

Ambulances are inspected each year by the Jefferson County Department of Health to ensure the State standards are met, and they contain the equipment and medication requirements set forth by the Board of County Commissioners to operate as a transporting agency. Evergreen ambulances are licensed as BLS units with ALS capabilities. The equipment is evaluated on an annual basis. Adjustments are made according to the standard of care set forth by the Denver Metro Protocols at the direction of our Medical Advisor. Evergreen Fire/Rescue has adopted a replacement schedule for its ambulance fleet at 150,000 miles of use. New chassis are purchased, and the ambulance patient compartments are remounted due to their estimated useful life expectancy of 1 million miles. With the addition of a fifth ambulance in 2021, we expect to extend the length of time we keep each of our ambulances by 20%.

The largest investment, in terms of cost of equipment except for the ambulances, is heart monitors. The current inventory is nearing its life expectancy however our vendor still provides service maintenance agreements therefore we can maintain confidence in knowing our equipment exceeds expectations. At a cost of approximately \$50,000 per unit and with new models of monitors expected to be released by multiple vendors in the next few years, we will be thorough in our research for new heart monitors following the advancements in prehospital care and the standards of care of early detection for the heart attack victim.

Public Notification for Sudden Cardiac Arrest (SCA) - Currently the AED link and Atrus are a software used for registered local CPR certified residents in the community, who are assigned to a specific AED in the community, to receive notification from Jeffcom (our dispatch center) when an SCA event occurs within a one-mile radius of that AED. Typically, the AED they are most close to is the one assigned.

Currently there are only a handful of cardiac arrest calls where members of the public respond with an AED, and even less often do they beat the ambulance to the event. We do know that most SCA events tend to be in the urban areas of the community and the ambulance is closer to these events leading to their arrival first. With a goal to get AEDs there prior to the ambulance or within minutes, we should evaluate more of these SCA events and determine if we need to have more rural AED placement, or more participation in the current program from the public or seek alternative notification software to reach out to more responders.

COMMUNICATIONS

EFR entered into an agreement with six other fire departments to develop and fund a wide area radio netwok for shared communications. Funded 100% by a North Central Region (NCR) and Urban Area Strategic Initiatives (UASI) grant, a six tower radio network was developed for a common dispatch channel and a command channel (VRedSW). This netwok will continue to be supported by the participating agencies and further use of the network should be evaluated.

EFR has purchased licenses for Mobile Data Terminals (MDT's) to be used initially by the Medic units and command vehicles. These devices are linked to Jeffcom's computer aided dispatch (CAD) software system so the responders can monitor information being entered into the CAD system by the dispatcher in real time. Mapping systems and preplans are also available to the responders through these devices. Additional MDT's should be evaluated for fire apparatus that roll most frequently and are in the commercial building areas.

VHF Radio Network - Increased and redundant radio coverage can be obtained by placing additional radio equipment at Station 2, at Conifer Mountain and at the Indian Creek tower site in Clear Creek County. This project is scheduled for 2021.

Bidirectional Amplifiers - EFR has been working with contractors on commercial building renovations and new construction, insuring that radio communications are adequate inside the building. Bidirectional applifiers are installed to boost radio signals. An analysis of commercial buildings, including schools, should be conducted to set a priority for these installations.

Emergency Notiofication – Nationally a low number of people have signed up for emergency notifications. Jefferson County is in the same position with only 30% of residents enrolled in the program. EFR will improve this percentage for the EFPD by changing from a passive approach to more strongly encouraging enrollment.

New Technologies - New technologies such as cellular telephone communications systems, First Net and other digital radio technology should be evaluated and utilized when available.

Training- Operations divisions will evaluate and implement additional training concentrating on wildfire communications, active shooter, mass casualty and other All Hazards communications. The training of new personnel and the on-going training of staff will continue to be evaluated for effectiveness and efficiency. Other training requirements will include conventional analog and digital radio frequencies, working knowledge of our new radio equipment as well as the other new systems.

ADMINISTRATION

Insurance Services Office (ISO) – EFR has committed to improving fire prevention and response services. This results in a lower ISO rating which translates to lower property, home, and business insurance premiums. We will continue to make improvements to our trainings, response, and prevention programs. We will continue to work with our water resource partners to improve water supply and will continue to work with our emergency communications center, Jeffcom, to maintain their scoring towards ISO with the goal of maintaining or improving our rating.

NFPA 1500 Compliance - Just as it is important to provide high quality emergency response services to the community, it is equally important to ensure that the health, safety, and wellness of the members of EFR are a top priority. To perform their duties as an emergency responder, members must be in top physical and mental health, and have the correct tools and equipment to perform their essential job functions in a manner that will reduce and prevent serious life-threatening injuries or illnesses. As an organization, EFR is responsible for ensuring that the proper policies, procedures, training, and safety systems are in place to reduce and eliminate the risk associated with the services provided.

The industry standard for health, safety and wellness is outlined in NFPA 1500 - *Standard on Fire Department Occupational Safety and Health Program.* It was established to specify the minimum requirements for an occupational safety and health program for a fire department and outlines minimum fire service program criteria in a variety of areas including risk management policies, emergency operations, facility safety, apparatus safety, critical incident stress management, medical/physical requirements, member training requirements, driver program, member fitness/wellness, and the use/selection of Personal Protective Equipment (PPE).

In January of 2021, a NFPA 1500 compliance analysis was conducted. After this analysis, it was determined that EFR is 65% compliant with this standard. In the analysis most of the compliance ratings that were marked as "non-compliant" only require minimal corrections such as updating Standard Operating Procedures. There were several critical "non-compliant" areas that were identified that need to be addressed or improved upon. These areas include:

- Establishment of a NFPA 1500 committee responsible for adherence to this standard. This committee shall be identified by the end of the 2nd QT of 2021.
- To develop a physical fitness and wellness program Currently the department offers reimbursable gym memberships for personnel, requires medical physicals for new members, and recommends personnel receive medical physical exams on a sliding scale based on age. The department has recently established a physical fitness committee that is tasked with developing and implementing physical fitness requirements that will need to be met on an annual basis by all members concurrent with their job duties and assignments. This program should be in effect by 2022.
- Compliance with NFPA 1001 (Firefighter Professional Qualification) NFPA 1001 outlines the minimum job performance requirements (JPR's) for personnel serving in the role as Firefighter I (FFI) and Firefighter II (FFI). Currently, 100% of the operations division is certified at the level of FFI but only 49% of the operations division is certified to perform functions as a FFII, even though all members may be called to an emergency incident where they may be tasked to assist in FFII job functions. Ensuring that all members receive official certification as a FFII has become a priority for the training division. Obtaining a FFII certification has been added to individual professional development plans and a FFII class is held every year to assist in the certification process. Compliance with this is expected to be 90% by 2025.
- Compliance with NFPA 1002 (Driver Operator Professional Qualification) An internal Driver Operator/Engineer qualification program exists that qualifies EFR members to operate department apparatus but not all required tasks in the driving program fully align with the JPR's outlined in NFPA 1002. One of the responsibilities of the NFPA 1500 committee will be to conduct a full review of the driving program and recommend changes to the Lead Driver Engineer Program Manager for improvement and compliance by 2025.
- NFPA 1041 (Fire Instructor Professional Qualifications) At present 16% percent of personnel are certified at the Fire Instructor level though many members are tasked with the delivery of training instruction. To ensure that quality training is being delivered to all members, EFR has established a requirement that all Fire Officers obtain certification as a Fire Instructor I to join the Instructor Cadre. The training division is currently working with CO Division of Fire Prevention and Control (DFPC) to be able to teach this course internally. This will significantly improve the department's compliance with this standard.
- NFPA 1021 (Fire Officer Professional Qualification) 13% of Fire Officers are certified at the Fire Officer Level. An officer development program does exist, and officers are required to complete 12 hours of officer development training every year, but this training does not fully encompass the JPR's outlined in NFPA 1021. Currently, this certification is only "recommended" for Captains or above. To ensure that all officers are equipped with the tools necessary to act in a supervisory role they should strive to achieve this certification. To ensure that officers are knowledgeable in the role of a Fire Officer, a performance task book will be created for all current and aspiring officers. Tasks outlined in the task book will mirror the tasks and JPR's outlined in NFPA 1021. Though actual certification at the Fire Officer level may be difficult to obtain, completion of this task book will ensure that personnel have the knowledge and tools necessary to operate in a supervisory role. The implementation of this task book will be in effect no later than Jan of 2022.
- Risk Assessments EFR has a risk assessment matrix and definition but it is not specific to different types of emergency incidents. This is currently being created.
- Fire Department Apparatus EFR has a robust Apparatus purchasing and operating procedure currently established but the compliance of that program with applicable NFPA standards has not been fully assessed.

Part of the responsibilities of the NFPA 1500 committee will be to conduct a full review of the Apparatus program and recommend changes to the Department lead for improvement and compliance by 2025.

- Personal Protective Equipment (PPE) EFR recently replaced all Self Contained Breathing Apparatus (SCBA's) to ensure compliance with NFPA 1852 and has periodically replaced PPE to ensure compliance with NFPA 1851. This has significantly impacted member health and safety in a positive manner. Though EFR has been taking steps to improve member's safety through PPE, an outlined and defined policy for the selection, care, maintenance, and retirement of PPE does not exist. Part of the responsibilities of the NFPA 1500 committee will be to work with the program manager to develop a comprehensive PPE policy for compliance by 2022.
- Hearing Conservation Program This program does not exist. Hearing protection is available for use in some areas and is outlined in Standard Operating Guidelines, but the adherence to this standard is not followed by all personnel. A responsibility of the NFPA 1500 committee will be to work with the division leaders to develop a comprehensive hearing conservation program for compliance by 2022.
- Technical Rescue EFR has a robust technical rescue team that is responsible for ice, water, rope and auto rescue. Though the best practices are used for training, PPE selection, and operation orders, these practices have not been compared to the following NFPA's that govern this type of work: NFPA 1983 Life Safety Ropes and Systems, NFPA 1952 Standard on Surface Water Operations, NFPA 1006 Standard on Technical Rescue Professional Qualifications, NFPA 1670 Standard on Operations and Training for Technical Search and Rescue Incidents, and NFPA 1855 Standard on Selection, Care, and Maintenance of PPE for Technical Rescue Incidents. A responsibility of the NFPA 1500 committee will be to work with the divisional team leaders to assess the compliance with these standards by 2022 and take the appropriate steps to ensure compliance by 2025.

EFR has voluntarily chosen to adopt the standards listed above. These standards will help to lay a solid foundation for operational readiness. As an organization, we realize the importance of implementing the best industry practices to safeguard not only the community, but to ensure that our members are equally protected.

Fire Station 1 - Station 1 will be replaced in this strategic plan cycle. Property has been purchased south of the current Station 1 location, at 5071 Hwy. 73, 5111 Hwy. 73 and at 28468 Buffalo Park Road. The ambulance crew at Station 4 will be moved to the new location.

Fire Station 3 and 4 - Stations 3 and 4 will be evaluated for a possible home for the wildland equipment and the fuels crew. The drinking water contamination at Station 3 is a problem to resolve, as is the flood plain around Station 4.

Information Technology - Information Technology (IT) has changed substantially over the last decade at EFR. Email, Internet access, Website access, and documentation generation has grown exponentially. Along with access to the outside world and back into the EFR network comes an important and technologically challenging issue of security and firewalls. EFR has upgraded and improved a lot of these systems. As technology continues to change at a rapid pace, EFR will invest in those technologies that benefit our service to the public, EFR personnel and effectiveness of the organization. A replacement schedule for the high value equipment will be added to the Fixed Asset Long Term Plan to ensure funding is available to keep pace.

Public Information - The Public Affairs team will expand the use of social media and other public communications outlets to educate, inform, and notify our followers of emergencies and events. EFR needs to expand our ability to inform our community of who we are, how we operate, the programs available to them, and general safety information.

Turnouts – The volunteer auxiliary group has been successful in their first years supporting EFR. EFR will continue to support the Turnouts as their group grows and develops.

People and Culture (Human Resources) - EFR's HR Strategy is how the organization accomplishes its goals through people. The HR strategy is developed to ensure human capital has alignment to the organizational mission, vision, values and the EFPD Strategic Plan. Every two years the People and Culture Manager along with the Fire Chief will conduct a gap analysis between current programs and future requirements in all five major HR components. This team will formulate and prioritize important critical personnel issues identified by the gap analysis.

The Five Major Components of an HR Strategy:

- Talent Planning and Acquisition
- Performance Management
- Total Rewards/Compensation and Benefits
- Training and Development
- Talent Engagement

The HR Manager will follow the five-step process outlined below for a clearly articulated HR Strategic Plan incorporating all five components:

- 1. Planning HR and Fire Chief will do an internal and external assessment every two years to determine priorities and assess District position.
- 2. Results HR will determine objectives every two years to align with the goal of where we want to be.
- 3. Strategy HR will determine how the objectives will be met. We will always align with the Mission, Vision, Values and Organizational goals.
- 4. Implementation Action Plans/Contingency Plans: Who must do what? How will we get there?
- 5. Review We will monitor through quarterly metrics to be identified and may include: Budget, Recruitment (Internal vs. External), Retention, Employee Survey, Exit Data, and Business Metrics.

Talent Planning and Acquisition Strategy: We will attract, recruit, and select the best talent available for the EFR culture. We will have an effective on-boarding program for all employees, volunteers, and board positions. The organizational benefits include:

- Increased retention
- Increased likelihood that new employees will reach required performance levels more quickly
- High employee engagement

Performance Management Strategy: The system will be objective based and will account and reward for consistent employee behaviors that align to expectations and values.

Total Rewards Strategy: The program will award all employees according to the total rewards philosophy.

Training and Development Strategy: The training and development system will be created to develop all individuals who are the leaders of tomorrow and lead to high retention in key positions.

Talent Engagement Strategy: The program will ensure highly engaged employees who are productive, and support the organizational mission, vision and values.

Employee Assistance Programs – EFR will continue to expand services we provide for family and health needs. The fire and EMS services have had an awakening to the needs of personnel both in physical health and mental health. EFR programs currently in place support our employees and their families. Foundation 1023, MAPS Peer Support with Building Warriors and other groups are available. The utilization of these services continues to increase.

Peer Support - Peer Support has been an invaluable resource to EFR since inception in 2019 and has already shown its worth having been used more than ever expected. In 2019 our 5 peer support team members had 45 contacts with both internal and external department members. In 2020 our contact numbers were up by 20% to 56 contacts. The implementation of this peer support program has allowed us to send trained team members to neighboring agencies when they need help with individual peer support, or Critical Incident Stress Debriefing for a large-scale incident,

they may have experienced. The need for peer support has in the past year been recognized at the state level and additional resources are becoming available there as well.

Part of the Peer Support program included incorporating multiple mountain agencies to develop the Mountain Area Peer Support team (MAPS). This allows us to share resources more readily, train quarterly together, and grow comfort levels among departments. (Blackhawk Fire, Foothills Fire, Highlands Rescue, Evergreen Fire). We have started to expand relationships with these surrounding organizations at different levels beyond EMS or rescue and fire and at the peer support level it seems to make relationships even stronger.

Overcoming the stigma of being a firefighter or in EMS is a huge hurdle to increased usage from the program for all agencies. Training, training, and training for all will be important in the years to come so that we can avoid, to the extent possible, having those who needed it did not use it! There is certainly additional room for other agencies to get involved with MAPS and we hope to see this spread to the south of our district.

Financial - Financial goals are broad statements of the financial position the District seeks to attain. The financial goals for EFPD:

- To be fiscally responsible as a District.
- To have adequate financial reserves for uncertain economic times.
- To invest to preserve or enhance District facilities, buildings, and equipment.
- To provide services in the most cost-effective manner.

Financial Policies - Financial policies support the financial goals. They allow the District Board to view their present approach to financial management from an overall, long-range vantage point. They are general statements that guide decision-making in specific situations to ensure that a decision will contribute to the attainment of the financial goals. Federal and state laws, rules and regulations, the District Bylaws, and generally accepted accounting principles promulgated by the Governmental Accounting Standards Board ("GASB") and the Government Finance Officers Association of the United States and Canada ("GFOA") guide the District's financial policies and processes.

Budget Policies - Sound financial practices along with the desire to continue to be fiscally responsible dictates that budgets be balanced, constantly monitored, and responsive to changes in service demands. With these concepts in mind, the District has adopted the following budget policy statements:

- The District will adopt an annual Budget that contains operating budgets for all funds.
- Annual operating Budgets will be adopted on a balanced basis, where current operating revenues (estimated revenues) are used to fund ongoing operating expenditures/ expenses (appropriations). Fund balance should not be considered a source of funds for ongoing operating expenditures/ expenses. Nothing in this policy shall prohibit the use of operating revenues for capital expenditures/ expenses.
- Unreserved and undesignated fund balance may be appropriated as part of the adopted Budget to fund capital, one-time emergency expenditures/ expenses, or one-time operating costs. Unreserved and undesignated fund balance should not be used to fund ongoing operating expenditures/ expenses in the adopted Budget.
- One-time revenues that are not required by law or agreement to be expended for a particular purpose will only be used to fund capital, emergency expenditures/ expenses, or one-time operating costs in the adopted Budget. Examples of one-time revenues include, but are not limited to, proceeds from the sale of property and other major assets, governmental grants that are not regularly received and are unlikely to recur on a regular basis, major gifts or donations, and major insurance recoveries.
- Reservation and designation of fund balance will be estimated in the adopted Budget for amounts of fund equity legally restricted or otherwise not available for appropriation.
- The District's fiscal year is the calendar year, and its Budget calendar shall be as provided for in the Colorado Revised Statutes.

Operating Position Policies - Operating position refers to the District's ability to balance its Budget on a current basis, maintain reserves for emergencies, and maintain sufficient cash to pay its bills on a timely basis. The District operating position policy requires that:

- The District will pay all current operating expenditures in the General Fund with current operating revenues unless explicit approval is granted by the Board. The general policy intent is that ongoing General Fund operating costs will not be financed from fund balance, unless and until all other alternatives have been exhausted.
- District Staff shall prepare financial reports of the financial position and results of operations for the major funds of the District or any other fund requested by the District Board. The reports will contain the revenue and expenditures of the funds with an analysis of the results for the end of each month.

Revenue Policies - Revenues determine the capacity of the District to provide services. Under ideal conditions, revenues would grow at a rate equal to or greater than expenditures. To ensure that District revenues are balanced and capable of supporting our desired levels of services, the District has adopted the following revenue policy statements:

- Each year, and whenever appropriate, existing revenues will be re-examined, and possible new sources of revenues will be explored to ensure that the District is maximizing its revenue potential.
- The District will strive to be informed and aware of all grants and other aid that may be available. All potential grants and other aid shall be carefully examined for matching requirements (both dollar and level-of-effort) and restrictive covenants, to ensure that participation in such grants will be beneficial and cost-effective.
- Each year, and whenever appropriate, intergovernmental revenues will be reviewed to determine their short and long-term stability, to minimize the impact of any adverse changes. Intergovernmental revenues shall be used as legally prescribed or otherwise set forth by policy.
- One-time revenues will be used for capital improvements, one-time expenditures or as legally restricted to a specific purpose.
- The District will carefully and routinely monitor any amounts due. An assertive collection of all receivables will be followed.
- The EMS Fund will strive to generate revenue sufficient to support the costs of services. Each year, and whenever appropriate, the District will review EMS fees.
- Revenue forecasts shall be conservative, using generally accepted forecasting techniques and appropriate data.

Expenditure/ Expense Policies - Expenditure/ expenses are a rough measure of the District's service output. While many expenditures/ expenses can be easily controlled, emergencies, unfounded mandates, and unanticipated service demands may strain the District's ability to maintain a balanced Budget. To ensure the proper control of expenditures/ expenses and provide for a quick and effective response to adverse financial situations, the District has adopted the following expenditure/ expense policy statements:

- Expenditures/ expenses and purchase commitments will be made in a form and process that is legal, appropriate, funded, authorized, and sufficiently documented.
- Expenditures/ expenses and purchase commitments will be recorded in an accurate and timely fashion.
- Encumbrances will be used to properly show the commitment of funds against appropriations.

- The balances in appropriation accounts and programs will be monitored regularly to ensure that the total of expenditures/ expenses and purchase commitments in any account do not exceed the authorized Budget for that program.
- Requests for competitive bids, proposals, formal and informal quotes, and other methods of seeking and encouraging vendor competition will be obtained as required by law or otherwise established by the District Board or the Fire Chief.
- The District will maintain an effective risk management program that provides adequate coverage, minimizes losses, and reduces costs.
- Appropriations for all operating funds shall lapse at the close of the fiscal year to the extent that they shall not have been expended or encumbered.
- Due to the multi-year nature of many capital improvement projects, appropriations for the Strategic Capital Fund will continue through project completion and shall not lapse at year-end.

Capital Expenditure/ Expense Policy - Capital expenditures/ expenses refer to items purchased with a value of over \$5,000 dollars and having a life of more than one year or which significantly extends the useful life of an asset already in service.

• Items meeting the definition of a capital expenditure shall be added to the fixed asset inventory of the District.

Reserve Policies - Reserves are used to buffer the District from downturns in the economy and to provide an additional source of accumulated funding for major capital improvement projects. The policy of the District Board is to maintain the un-appropriated fund balance in the General Fund at or above 15% of the current year General Fund operating budget.

Cash Management and Investment Policies - District cash will be invested in accordance with the Investment Policy approved and adopted by the Board at the November 19, 2008 Board meeting.

The prioritization for investing District funds shall be:

- 1. Safety
- 2. Liquidity
- 3. Yield

Debt Management Policies - The District shall maintain a debt policy, which establishes criteria that will protect the District's financial integrity while providing a funding mechanism to meet the District's capital needs. The underlying approach of the District is to borrow only for capital improvements that cannot be funded on a pay-as-you-go basis. In some cases, debt can be an effective way to finance major capital improvements. Responsibly managed debt preserves the Districts credit rating, provides flexibility in current and future operating budgets, and provides long-term assets that maintain or improve our quality of services. To provide for the appropriate issuance and responsible use of debt, the District has adopted the following debt management policy statements:

- Long-term debt will not be issued to finance current operations.
- The maturity of the debt should not exceed the useful life of the improvement.
- Certificates of Participation (COPs) should not exceed 12% of the issuing funds total expenditures. Any COP project that generates revenue should have the revenues credited against the total lease payments before calculating the limit.
- General Obligation Bonds (GO) should be limited to projects with an asset life greater than ten years. The total GO bonds issued should not exceed 50% of the actual taxable value of the property in the District. Limitations on debt shall meet all limits of Article X Section 20 of the Colorado Revised Statutes as interpreted by the District's Attorney.

- Enterprise revenue bonds, notes, or leases should be no greater than 15% of the revenues of the fund supporting the debt or lease unless it is a newly approved revenue source that is dedicated by the District Board or the voters to repayment of the debt.
- Each annual operating budget will include the full appropriation for repayment of the principal and interest due that year on each debt or lease issue.
- Debt limits established by law and policy will be calculated at least once each year, and whenever otherwise requested or appropriate.
- Good communications will be maintained with bond rating agencies, bond counsel, banks, financial advisors and others involved in debt issuance and management.
- The District's comprehensive annual financial reports and official statements will reflect our commitment to full and open disclosure concerning our debt.

Capital Improvement Projects (CIP) Policies - Capital improvement projects refer to projects of substantial spending that construct an asset, lengthen the life of an asset, or increase the value of the asset. They often cross over two or more budget years. The District will prepare a six-year CIP for all funds, starting with the current year.

- The program shall include all projects that meet the definition of a CIP project.
- The program shall include the total estimated cost of the project and how much the project will add to ongoing operating costs.
- The program will be compiled during annual budget preparation.
- A prioritization matrix shall be used to rank CIP projects.

Periodic Review - The Comprehensive Financial Policy Document and each of the policies contained within shall be reviewed by the District Board during odd numbered years. The policy has been written to be flexible and easily amended to deal with the style of the times.

Grant Funding - There are many local, state and federal grant programs established to assist fire departments with funding for a wide variety of needs. EFR shall continue to commit to researching, identifying, and applying for grant funding under the established revenue policy.

EMS has been successful in receiving grant funding from the Regional Emergency Medical and Trauma Advisory Councils (RETAC) for trainings and equipment. Completed in 2013 the narrow band VHF radio system was funded through the Urban Area Strategic Initiative (UASI) and other funding is currently being sought to expand the radio system through North Central Region (NCR).

COMMUNITY RISK REDUCTION

(Fire Prevention and Wildland Fire Risk Reduction)

As the community has grown and evolved it has placed increasing demand upon EFPD and EFR to provide a higher level of service and protection especially in risk reduction.

The 2014 Fire Prevention Division Strategic Plan emphasized four key areas: Wildland Fire Prevention, Community Fire Safety Education, Fire Inspections, and Fire Pre-plans. With the exception of fire hydrant testing, all key components in each of these categories have been met.

Community Risk Reduction - In late 2018 the Fire Prevention Division underwent an administrative change that brought a new vision for risk reduction. This vision is to embrace Community Risk Reduction as an organizational philosophy.

What is Community Risk Reduction? It is a holistic approach to proactively reduce all community risk. All divisions of the organization; Administration, Operations, EMS, Wildland Fire and Prevention operate under the umbrella of Community Risk Reduction (CRR). All divisions and all members participate in promoting risk adverse behavior, being observant for risk conditions and behaviors, being a source of assistance, and interacting within the dual communities of Evergreen and EFR.

High School Outreach - Junior/ Senior students receive education and training in use of fire extinguishers, CPR, basic first aid, and good fire safety practices in preparation to living independently.

Developing a Small Business Liaison - Work with local businesses to address fire/ life safety concerns identified through inspection and how to develop and provide a safer business environment.

Evergreen Business Safety Partner Program - This program would provide fire/ life safety training to local businesses that wish to participate. Participants that successfully complete the program will receive a certificate of completion and recognition by EFR through its social media team.

ICC Wildland Urban Interface Code - Continued adoption of the WUI Code working with the county Fire Marshal's and Jefferson and Clear Creek County offices.

Training - Strengthening of Fire Investigations through a training/ credentialing process.

Fire OPS Inspection Program - Development of a Fire Company inspection program to enhance familiarity with commercial structures within the district and interaction with business owners.

Fire Alarm Program - Review/ develop a residential fire alarm program to include partnership with other agencies/ entities for devices and installation, documentation and tracking of installed devices, addressing the hearing impaired, and carbon monoxide alarms.

Partnership with Evergreen Metro District - Continue to work with the Evergreen Metro District regarding fire service needs in the water utility and a hydrant maintenance program.

Personnel Requirements - Addition of a Public Education Specialist/ Community Liaison could be requested to relieve the inspections team from these additional duties.

Wildland Fire Risk Reduction – The term "prevention" is being used less, being replaced with "risk reduction." As we accept that we live in a wildfire prone environment reducing our risk of wildfire, loss of life and property should be our priority. To assist our community with risk reduction, EFR invested in a seasonal fuels crew which included five seasonal employees and one full time employee. The fuels crew was tasked with reducing the wildfire fuels in the district. They were provided with a chipper and chip truck and contracted the chipping and hauling of slash piles in the district. They have also contracted with Jefferson County Open Space and Denver Mountain Parks to complete thinning projects and pile burning. An agreement was reached with Jefferson County which will allow them to thin fuels along county rights-of-way. This same agreement is being developed for Clear Creek County roads. The fuels crew will be expanded to a ten-person seasonal crew with two full time employees supervising them in 2021. The fuels crew are wildland fire certified as well. They will assist firefighters on wildfires in the area.

EFR will continue to increase efforts to educate the residents of the EFPD on wildfire risk reduction and pre-planning. It is very important that the community understands the importance of mitigation and preparing their neighborhood, not only their individual homes, for wildfire.

Community Wildfire Protection and Implementation Plans (CWPIP) – EFR alone cannot be successful in wildfire risk reduction without an active community effort to reduce fuel loading through private property mitigation as well as following construction building codes designed to allow structures to better withstand wildfire.

The 2020 CWPP identified 26 zones within the EFPD. Chart 22 details the completed and in-process CWPIP's. EFR will continue to assist the community members in these zones in completing a working CWPIP, educating our community on how to live in a wildfire prone environment, acquiring funding for mitigation projects and assisting with those projects utilizing the fuels crew.

Fuel Treatments -EFPD, community members, and the local agency partners that manage land within district boundaries, work to mitigate extreme wildland fuels and have ongoing projects to improve wildfire outcomes for the residents of Evergreen. The treatments include vegetation thinning, pile, and broadcast prescribed burning, pruning or mechanical harvest. Treatments are designed to disturb the existing horizontal and vertical arrangement of fuels. This increases the spacing between trees and increases the distance from the ground to the tree canopy. Home Ignition Zone recommendations to reduce structural ignitability in coordination with these wildland fuels treatments will make a difference when combined. EFPD is well positioned to navigate the complex public and private partnerships to complete treatment, but all residents must do their part.



Chart 22 Evergreen Community Wildfire Protection Plan 2020, pg. 12

Home Assessment Program - In 2020 EFR partnered with Elk Creek Fire (ECFD) to start a home assessment program that began in August. This is a proven program (Realfire) that Boulder County, Eagle Vail and West Region wildfire council (includes 6 western CO counties) are currently using. EFR and ECFD applied for funding through the Upper South Platte Partnership (USPP) and were awarded \$24,000.00 to start the program in the two Fire Protection Districts. The home assessment program for EFR and ECFD is named Wildfire Prepared and includes a detailed 2-3 hours per home assessment, looking at the defensible space and home hardening of the homes. This will assist the CWPIP's in identifying what mitigation work is needed. The goal will be to apply for a FEMA grant to offer to homeowners to complete the mitigation work.

Wildfire Evacuation - Evacuation of the public and incorporating shelter in place areas in some regions in the EFPD must remain a priority. There is a critical need to create shelter in place areas throughout the district for a fast-moving fire event. EFR is working on coordinating these efforts over the next five years based on the information included in the 2020 CWPP. This will involve future training opportunities, working with the community and law enforcement. EFR will continue to identify large scale fuel breaks, safety zones and other projects. To fund these projects, EFR will look for large scale grants and work with CSFS, USPP to find the best opportunities to complete these projects.

Prescribed Fire - Prescribed fire is another tool that can be utilized for fuels reduction, both in slash pile burning and broadcast burning on a larger scale. EFR recognizes that other county agencies are interested in prescribed fire and we can support these agencies by helping staff and coordinate their burns with qualified individuals and/ or an EFR burn team within the District along with burning on private and public lands. EFR plans to begin a fee-based burn program.

Geographic Information Systems (GIS) - GIS is an important aspect of mapping and planning. EFR recognizes the need of having a GIS technician to help with the data that is produced and needed for fuel breaks, evacuations, wildfire preplanning, the building and support of CWPIP's in Evergreen, grant applications, live tracking of fires through Colorado Wildfire Information Management System (COWIMS) and linking our maps with COWIMS. EFR recognizes the need to hire or contract with a GIS Technician in the next year or two, to maintain and catch up with the technology being used in this field.

Personnel – Additional personnel may be required for the Home Assessment program and for GIS support. Grant writing support must be considered to assist staff in completing these detailed applications.

MAINTENANCE

The Maintenance Division strives to engineer balance considering lifecycle and maintenance costs. The goal is to extend lifecycles economically while maintaining the highest quality. We will continue to invest in tooling to satisfy current technological advances and to maintain efficient practices. Additional opportunities will be identified, including instruction, records keeping, and fluid analysis.

Apparatus – Management has developed and maintained an Apparatus Evaluation Schedule in the previous strategic plan cycle. This schedule is revisited annually based on operational benefit and current condition to forecast lifecycles. Existing work order data will continue to be leveraged to quantify high operating cost and down time. The evaluation schedule was revised in 2013 to include vehicle refurbishing rather than full replacement. This revision allowed the schedule to be financially sound through 2034. Evaluation of the availability of used equipment will be researched with the schedule. The purchase of the Snowmass engine in 2011 proved this to be a viable alternative to buying new. Another consideration during a replacement assessment will be reseale value of the current vehicle.

Apparatus Evaluation Schedule 2021-2025

| | Total | \$3,915,755 |
|------|---|-------------|
| | Heavy Tender, to replace T171 | \$490,903 |
| | Structure Engine refurbish or replace E136 | \$698,250 |
| 2025 | Ambulance remount | \$175,131 |
| | Fleet vehicle, replacement for Bureau 2 | \$45,000 |
| | Structure Engine, refurbish or replace E131 | \$682,500 |
| 2024 | Medium size rescue truck to replace Rescue 141 | \$455,000 |
| | Utility response vehicle to replace Utility 191 | \$42,500 |
| | Tactical Tender, 1500 gallon to replace T175 | \$390,000 |
| 2023 | Ambulance remount | \$166,226 |
| | Fleet vehicle, Replacement for Maintenance 1 | \$37,000 |
| 2022 | Tactical Tender 1500 gallon to replace T177 | \$388,245 |
| | Fleet vehicle, wildland | \$45,000 |
| 2021 | 5 th Ambulance | \$300,000 |

Chart 23: From the 30-year planning schedule. Fire trucks are evaluated for remount versus purchasing new. Costs are based on 3% inflation annually. This replacement schedule is reviewed annually and revised dependent on the condition of vehicles and the availability of parts.

Facilities – The District will be looked at using the Standard of Cover, to determine if additional stations will be required.

Fixed assets – Fixed assets were included in the strategic capital long term planning. Maintenance will identify systems and equipment with a value of \$2,000.00 or more and that provide critical service. These items will be inventoried by implementing a bar coding system. Maintenance will continue to identify cyclical and other maintenance needs, forecast lifecycles, project replacement costs, and revise the strategic capital long-term plan annually.

Fixed Asset Replacement Schedule 2021-2025

| EMS bed replacement Radio system replacement components | \$100,000 \$12,100 \$500,000 |
|--|--|
| EMS bed replacement | \$100,000 \$12,100 |
| Radio system replacement components | \$100,000 |
| Dadia system replacement components | ¢100.000 |
| Hydraulic tools | \$23,146 |
| Ballistic gear replacement | \$33,480 |
| Firewall replacement | \$20,800 |
| Server replacement | \$26,000 |
| EMS Carpet | \$7,704 |
| Radio system replacement components | \$100,000 |
| Intubation device | \$23,600 |
| EMS LifePack replacement | \$218,000 |
| Station 2 roof replacement | \$57,500 |
| Redundant radio system construction | \$370,000 |
| Server replacement | \$24,380 |
| | Server replacement Redundant radio system construction Station 2 roof replacement EMS LifePack replacement Intubation device Radio system replacement components EMS Carpet Server replacement Firewall replacement Ballistic gear replacement Hydraulic tools |

Chart 24: From the 30-year planning schedule

Revenue – Apparatus maintenance services offered to our surrounding agencies has continued to grow with the addition of Flight for Life in 2020. Other opportunities will be investigated and developed, such as Self Contained Breathing Apparatus (SCBA) maintenance which will begin in 2021.

Training – Fleet maintenance personnel will complete and maintain an Emergency Vehicle Technician certification during this planning cycle. This requires scheduling additional training annually. In addition, specific factory trainings will be attended to include pump, transmission, electrical, and specialty training targeted towards specialty equipment on our apparatus.

Facilities personnel will obtain training on Heating, Ventilation and Air Conditioning (HVAC) systems.