

Section III: Description of Agency Programs and Services

BFR is a full-time, paid, fire and emergency services department with no volunteer resources. The Department provides Fire (structural and wildland), and Basic Life Support (BLS) Emergency Medical Services (EMS) to the City of Boulder. Aside from fire suppression, BFR supports a multi-jurisdiction HazMat team and a stand-alone water rescue team.

BFR coordinates with city efforts in the joint city/county Office of Emergency Management (OEM), and acts as the designated emergency response authority (DERA) for hazardous materials response in the city. In addition to emergency response, BFR provides fire-safety education to the public, preschool through seniors. Public education programs include including car seat inspections, an annual Citizen's Fire Academy, working with local businesses and organizations by inspecting buildings and reviewing construction plans for fire prevention code compliance.

BFR protects more than \$21 billion dollars' worth of property within the city which encompasses 25.8 square miles of land and is surrounded by 70.8 square miles of city Open Space and Mountain Parks (OSMP). BFR responded to nearly 12,000 calls in 2017.

"The Boulder Fire-Rescue Department strives to make Boulder a safe place to live, work and play. BFR reduces the human suffering caused by fires, accidents, sudden illnesses, hazardous material releases, and other disasters."

BFR's current level of service is adequate to deliver the services expected by the community for the majority of incidents. For those rare incidents that tax the capacity of the department, external agency agreements have been established to provide additional resources if necessary. This level of service satisfies the expectations of Boulder citizens and elected officials.

History of Boulder Fire Rescue

Boulder Fire Rescue is legally established and recognized under Title 2 Government Organization, Chapter Five of the City of Boulder Charter and Revised Code. Section 2-5-2 delegates the authority of the fire department and directs the responsibilities of the fire department to include without limitation: the suppression or extinguishment of fires, the provision of rescue and emergency medical services, the provision of fire inspection and fire prevention services, the management of hazardous substance incidents as defined by state law, and the planning or response to public disasters and emergencies, including, without limitation, windstorms and flooding.

Service Delivery Milestones

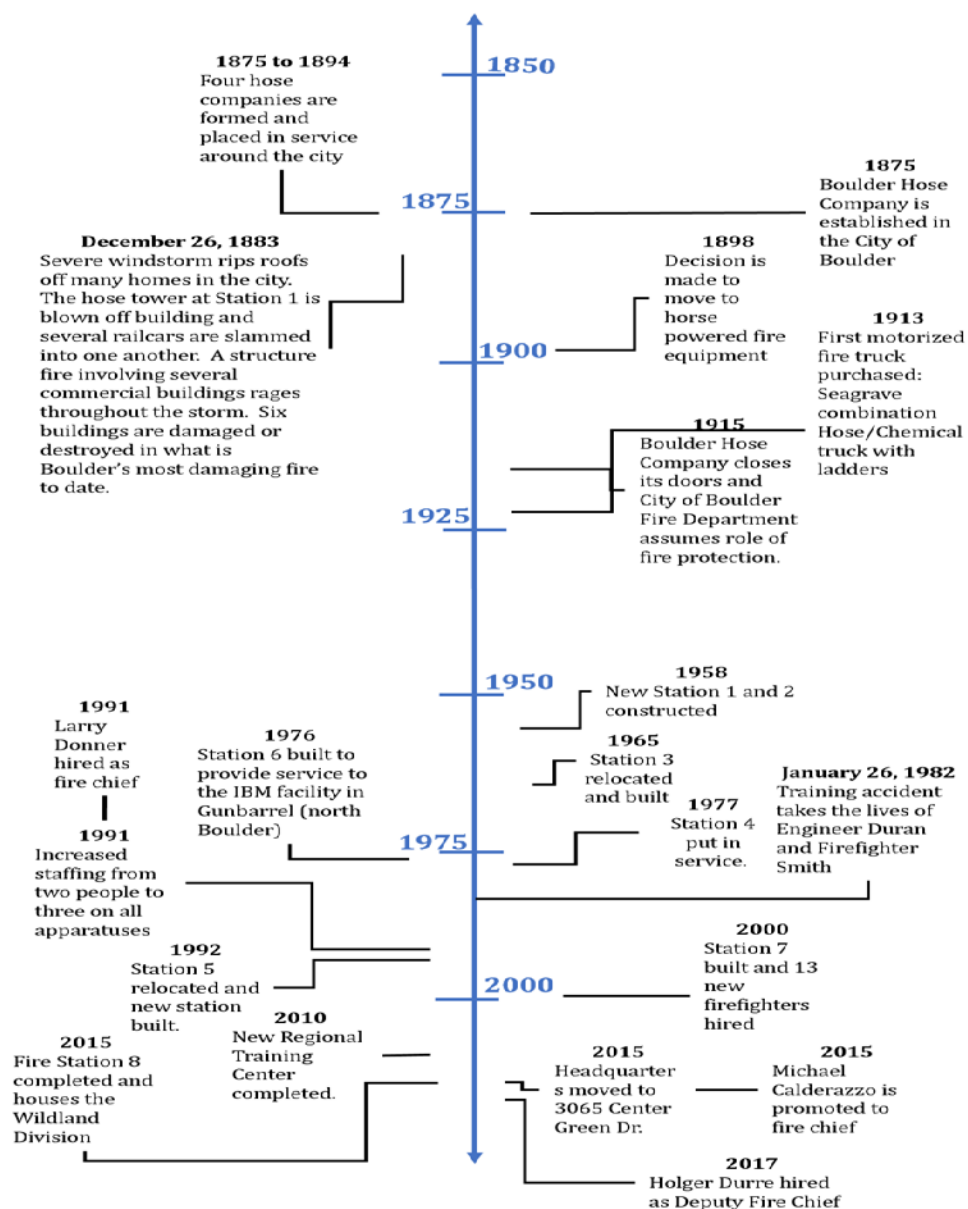


Chart 7. Timeline of BFR Milestones

Addition of Capabilities:

- 2008 - Contracted with AMR to provide dedicated ALS services in Boulder
- 2013 - Began a pilot program for a Light Response Vehicle (LRV) at station one following City Council goals of a reduction in the department's carbon footprint. The program was not continued in its original form due to a lack of effectiveness.
- 2013 - Implemented ProQA, a prioritized emergency medical dispatch system with the hopes of limiting the number of vehicle responses to low acuity medical calls.
- 2013 - Installation of Automatic Vehicle Location (AVL) devices on all fire apparatus.
- 2015 - The City of Boulder Emergency Communications Center implemented a new computer aided dispatch software.
- 2017 – Began the use of First-In station alerting.

Expansion of Service:

- 2012 - Hired an Administrative Battalion Chief (BC) to help support Operations Services
- 2013 - Hired an Administrative Assistant for the Fire Safety and Training divisions
- 2014 - Implemented Smoke and CO detector install service to low income customers
- 2014 - Implemented Citizens Fire Academy
- 2014 - Implemented Car Seat Install Technician problem
- 2016 – Hired a Management Analyst and converted the position in 2018 to a Project Manager – Data & Analytics to aid in strategic planning and continuous improvement initiatives.
- 2017 – Hired a second public educator to handle the expanded focus on a community risk reduction-based approach.
- 2018 – Hired a Sr. Budget Analyst to manage the day-to-day functions of fire department finance.

Specialization:

- 2008 - Implemented Blue Card Hazard Zone management into training and operations
- 2008 – Upgrade of Hazmat Unit to be a self-sufficient cross-staffed resource. The prior unit was a trailer that was limited in capability.
- 2010 - Purchased and outfitted 2 new wildland response vehicles for local and regional response
- 2015 - Completed the building of station 8 which formalized the support of the wildland program with dedicated space and room for expansion

Organization

The department is led by a fire chief that reports directly to the City Manager. The fire department is staffed by 120 sworn personnel and 9 civilian employees that are assigned to two major administrative branches, operations and support. Each branch is led by a Deputy Chief, who in addition to the Fire Chief comprise the executive leadership of the department. These branches are divided by function of providing external customer

support (operations) and internal customer support (support). Each branch is staffed commensurately to support the mission of the agency.

The department's overall administration is provided by the Office of the Fire Chief and supported by the two Deputy Chiefs that oversee the branches already described. Administrative support is provided by three administrative professionals that are assigned to administration, community risk reduction, and training. The Chief, in this capacity, provides for the overall strategic direction of the department and maintains external agency relationships.

Operations



Image 13. Operations Org Chart

The Operations Division is directed by the Deputy Chief of Operations, who oversees the Community Risk Reduction Division, the Wildland Division, and three response Battalion Chiefs. The department staffs seven fire engines and one ladder truck operating out of seven fire stations working a 48/96-hour, 3-shift schedule. The minimum staffing on each front-line apparatus is three personnel, with the Battalion Chief having a minimum

staffing of one. Each shift has one roving Lieutenant, Engineer and six roving Firefighters that are assigned to vacancies or to increase staffing above minimums.

FTE Employees	Min. Staffing		Stations	Engines	Ladders
101	25 FF	1 BC	7	1	1

Table 6. 2018 Operations Minimum Staffing Table

BFR does not rely upon external resources to make up its effective response force for fire suppression, however the department does rely on American Medical Response (AMR) for the ERF for emergency medical incidents. The department's response and deployment standards are based upon the urban population densities, and the fire demand of the community. The targeted service level objectives in the standards of cover benchmark statements are based on industry standards and best practices. Each apparatus is equipped with both GPS technology and a Mobile Data Terminal. The terminals, GPS and the software help to centralize the department under one system by linking all the apparatus directly to the county's computer-aided dispatch system. This ensures that the closest apparatus is dispatched to the incident thus reducing response times.

Wildland Division

The Wildland Division provides planning, mitigation, training, and suppression of wildland within the City of Boulder and its managed lands. The Division is staffed with nine employees that specialize in wildland fire and large incident management.

The Wildland Division is directed by the Wildland Division Chief who oversees a Wildland Fire Administrator and a Wildland Fire Operations Manager who supervises two Wildland Operations Specialists II and four Wildland Operations Specialists I. The Wildland Division provides planning, mitigation, training, and suppression of wildland within the city of Boulder and its managed lands. All personnel within the Division have national experience and are certified through the National Wildfire Coordinating Group (NWCG).

The Division provides incident response plans, pre plans, fuels reduction prescriptions, prescribed fire planning, Wildland mitigation plans and other associated documents to fire department management, as well as, other City departments that have owned and managed lands throughout the county (OSMP, Utilities, parks and rec). Along with preplanning, the Division provides the implementation of various fuels reduction projects throughout the city system. This is done with thinning and prescribed fire.

The Wildland Division also provides wildland fire and incident management training to the fire departments' front-line responders and support staff. This includes; basic wildland fire fighting through advanced fire tactics, annual refresher training (including administration of annual work capacity testing), incident management and various other training modules.

The training delivered goes beyond the city boundaries and includes external cooperative partners that have city managed land within their response areas. The Division is responsible for tracking all wildland specific training and qualifications for all city employees through the state sponsored IQS database system.

The Division also manages the repair, maintenance and readiness of the wildland fire apparatus. BFR operates 3 Type 6 engines and 2 Type 3 urban interface pumpers. Front line response is with either a Type 6 from station 5 or a Type 3 from station 2. The balance of the wildland specific apparatus is housed at fire station 8. This equipment is maintained in a state of readiness for surge capacity, severity staffing or sent on regional or national deployments.

Response is managed by multiple agencies. The Division's operations staff is housed at fire station 8. Initial attack on city managed lands outside of the municipal boundary is done by various career and volunteer fire departments. These agencies maintain agreements for services with the City of Boulder. The wildland Division provides secondary response to any wild fire on or threatening city property. Division staff provides incident management and coordination of resources. Division staff typically serves in the roles of incident commander, Division supervisor, or various other command and general staff positions. Most Division staff is used as members of the county wide Type 3 IMT as well as various positions on regional Type 1 and 2 Incident Management Teams (IMT).

Emergency Medical Services

The city uses a combined and integrated service network that initiates care from an enhanced 911 emergency call center operated by the city's Police Communication Center. First responder services are rapidly initiated from each of the city's seven fire stations operated by BFR.

Advanced life support services and patient transport is provided by AMR. The ambulance service is under contract to Boulder County and the City. Almost all patients requiring follow-up medical care are transported to Boulder Community Health (BCH), a 265-bed Level II Trauma Center, the highest level available locally. The hospital is in east-central Boulder. If a level 1 Trauma Center is needed, BCH will transfer patients to Denver Health²¹.

BCH offers 24-hour access to an interventional cardiac catheterization lab, surgery department, imaging and an 18-bed intensive care unit. In addition, BCH is the only facility in Boulder County that performs open heart surgery. BCH is also nationally certified as a Primary Stroke Center for providing high quality, specialized care and better outcomes for stroke patients.

There are three aero-medical EMS units (Flight for Life Colorado, Airlife Denver and North Colorado Med Evac) that provide aero medical transportation for severely injured or ill patients. There are some on-scene referrals, but most patients are initially transported from Boulder Community Hospital after initial treatment. EMS first response is provided on the campus of the University of Colorado by BFR with assistance from campus police. All emergency response personnel from the fire department are trained as Colorado EMTs. All new hires since the mid-1990's must obtain and maintain Colorado EMT certification as a condition of employment. The

²¹ Bch.org

department does not utilize or recognize paramedics within its ranks, though there are several individuals who have achieved this level of certification. The fire department operates eight first-line emergency response units, including one battalion chief command vehicle. All vehicles carry basic life support supplies and provide initial response and typically assist AMR personnel in patient care. Fire station personnel and AMR units operate on a common radio channel and are dispatched to incidents through the city's 911 Communication Center.

Special Teams

Hazardous Materials Response

Hazardous materials response is a locally provided service mandated by federal law. The law requires Colorado to develop a hazardous materials response system. The responsibility for the development of this system was delegated to local jurisdictions by statute. The statute requires local governing bodies to appoint a Designated Emergency Response Authority (DERA) to responding to hazardous materials emergencies.

For minor hazardous materials incidents, BFR provides a response of 7 personnel operating from two engines and one Battalion Chief unit. If incidents escalate or are reported as major spills or emergencies, the response is provided by the Boulder County Hazardous Materials Response Authority (BCHMRA). This entity is comprised of the fire departments of the cities of Boulder, Longmont, Lafayette, Louisville, and the Boulder Rural, Rocky Mountain, and Mountain View Fire Protection Districts. The BCHMRA is staffed by resources from each of the partner entities and provides DERA services throughout Boulder County.

According to the BCHMRA IGA, a minimum of 13 Colorado Certified Hazardous Materials Technicians will be available to respond 24 hours a day, 7 days a week. In addition, the following guidelines must be met:

- The BCHMRA will arrive within 90 minutes of initial dispatch of the BCHMRA to each of the following response areas
 - East of Broadway/Hwy 93/U.S. 36
 - North of Hwy 128
 - South of Hwy 66
 - West of East County Line Road
 - All other areas within the BCHMRA Response will be covered within 120 minutes of the initial dispatch of the BCHMRA.
- Initial dispatch of the BCHMRA will occur after initial Fire/Police size-up, reconnaissance, and life safety assessments, and a BCHMRA Response or Consult call is requested by the on-scene IC.
- Initial entry and recon of the event by the BCHMRA shall take place after all Team positions are in place and it has been determined to be safe to begin rescue or mitigation efforts.
- The jurisdictions that are signatories to the Authority Agreement will ensure collective staffing levels to support a 24/7/365 response of the 13 qualified Technician level positions.
- Medical Support will be provided by the hosting jurisdictions' EMS or County EMS system.

BFR supports the BCHMRA through its staff of 24 personnel that are certified as hazmat technicians. To accomplish the response time goals of the IGA, BFR has a minimum staffing of 3 technicians on shift per day.

Water Rescue

The Boulder area is a very popular attraction for visitors and this increase in population drives service demand. The Boulder community has two distinct areas of high use recreational water areas. The Boulder Creek flows directly through the center of town and is virtually assessable the entire length of the creek as it flows through the city limits. This area sees a high use during spring runoff and is responsible for several incidents each year involving innertubes and kayaks. The Boulder Reservoir is the area's largest open body of water available for recreational use.

The BFR Water Rescue program is responsible for initial emergency response to water emergencies. The purpose of the program is to provide training, equipment and water/ice rescue services to the City of Boulder. The Water Rescue Team has year-round capabilities for all water related incidents including: localized and area wide flooding, open water dive rescue/recovery, surface ice rescue, ice diving and swift water rescue and recovery.

Community Risk Reduction Division

The Community Risk Reduction (CRR) Division is overseen by the Chief Fire Marshal and is staffed by four sworn personnel and four civilian employees. The CRR Division strives to identify and prioritize risk within the City of Boulder. The Division addresses risk with the intent to improve public safety and prevent the loss of property and life for the people who live and work within the community.

The 2012 International Fire Code (IFC) is the governing document for fire related inspections within the city. Each of the approximately 5,000 businesses are inspected for fire code compliance, most occupancies are inspected by engine crews. The inspection checklist was developed from the IFC.

Specialty Inspections are conducted by Fire Inspectors. These include:

- Marijuana
- Group H occupancies – Hazardous Material Users
- Food Trucks
- Educational occupancies
- Day cares

The public education programs target identified known community risk such as fire, flooding, and wildland fires. CRR provides fire-safety education for children and youth (preschool through college age) to senior citizens. Public education also focuses on people or groups that may have or present a greater risk to themselves or the community. Boulder Fire-Rescue Department provides annual education and hands-on training to both on-campus resident assistants and Greek organizations within the CU Boulder structure. The Division also works

with local businesses and organizations by inspecting buildings and reviewing construction plans for fire prevention.

Enforcement of the adopted fire code is another program that CRR uses to improve and reduce risk within the City of Boulder. Through the fire code, CRR reviews and approves plans for new and remodeled buildings. Permits are issued and follow-up inspections are performed to ensure the terms and conditions of the permit are met. Inspections of existing business are conducted to not only mitigate hazards, but to also educate the business owner on reducing risk to customers, employees, and emergency responders.

Lastly, fire investigation falls under the purview of CRR. Fire investigators investigate the causes of fire to identify risk and developing trends that need to be addressed through education or enforcement.

Support Services

The Support Services Division is staffed by five sworn personnel and four civilian employees that provide support for all line services within the department and is directed by the Deputy Chief of Support Services. The Division is responsible for overseeing the department's budget process, maintaining fleet and facilities, acquiring and renovating fire stations and facilities, overseeing the IT needs of the department, providing for departmental training, and providing for support for department initiatives such as accreditation and special research projects. The Support Services Division is staffed by an Administrative Battalion Chief, a Training Division Chief, a Health and Safety Captain, a Training Captain, an Administrative Specialist, a Technical Systems Administrator, a Project Manager, and a Sr. Budget Analyst. The Support Services Division also provides for provision of human resources activities by partnering with the City's HR department and legal support through the City Attorney's Office.

Administrative Battalion Chief

The Administrative Battalion Chief's duties center around the maintenance of all facilities, equipment, and apparatus. The Administration Battalion Chief oversees the maintenance of the department's apparatus, staff vehicles, and the department's eight stations and support facilities.

Technical Systems Administrator

The Technical Systems Administrator is responsible for management and coordination of all departmental technology initiatives including software, hardware, telecommunications, and technology infrastructure projects and maintenance. The primary duties of the position include implementing and maintaining BFR software systems, ordering hardware and maintaining associated inventories, coordinating department telecommunications, and implementing technology infrastructure projects and maintenance. Serves as the primary database administrator of all fire department records systems. Additional duties include participation in special departmental projects related to technology and data.

Project Manager Data and Analytics

The Project Manager Data and Analytics is responsible for data analysis and strategic planning. These duties include Geographic Information Systems (GIS) and statistics related to projects within the department pertaining to call volume and response times. Essentially, efforts requiring examination of Boulder Fire-Rescue Data are the priority.

Senior Budget Analyst

The Senior Budget Analyst is responsible for the coordination of all departmental financial activities. Primary duties include development and ongoing monitoring of the annual budget, establishing and maintaining sound internal financial policies and processes related to purchasing and revenue collection and ensuring adherence to citywide financial and accounting policies. Additionally, the Senior Budget Analyst serves as a strategic adviser to Boulder Fire-Rescue's Executive Leadership Team for matters including, but not limited to, budget development, master planning, collective bargaining agreement negotiations, and financial reporting and analysis.

Training Division

The Training Division is staffed with a Training Chief, Training Captain, Safety Captain, and an Administrative Assistant. The Training Division is responsible for developing and providing comprehensive fire suppression and emergency medical service instruction to all members of the Department. The Division conducts regular exercises, live fire drills and specialized training to ensure that consistent and effective emergency services continue to be provided to the citizens and visitors of Boulder. The Training Division is also responsible for training all new members entering the Department by ensuring proper on boarding and department familiarization.

All initial hires must first pass through the Firefighter Recruit Training Academy. The academy runs 16-weeks and meets all State Fire Marshal and NFPA Standards for Firefighter I certifications²². Upon completion of the academy, recruits will be certified to the level of Firefighter I or II, Hazard Materials Operations and Car Seat Technician. Recruits receive training in water rescue, vehicle extrication, fire fighter safety and survival, low angle rope rescue, confined space rescue, 130/190 wildland training, forcible entry, hose management, search and rescue and various other fire ground operations.

In-Service training is also managed by the training division. Specific training is required to be completed to maintain knowledge, acquire technical proficiency as well as maintain required certifications. These in-service trainings include conducting live fire training, aerial ladder operations, elevator rescue training, rail car rescue, gas and electrical utility control.

Communications

The City is a member of the Boulder Regional Emergency Telephone Service Authority (BRETSA), which is authorized to set fees for 911 service. BRETSA was formed in 1987 through a countywide Intergovernmental Agreement (IGA). Utilizing the money collected through the 9-1-1 surcharge, BRETSA provides significant

²² IFSAC

assistance in bringing Enhanced 911 (E-911) telephone and dispatching services to Boulder County and the cities, towns and fire protection districts located in Boulder County. BRETSA is governed by Colorado Statutes, the IGA, and is managed through a Board. The board consists of four permanent members and one rotating member having a one-year term. While BRETSA contracts out for needed services and support, as an emergency telephone service authority it has no employees.

There are four public-safety answering points (PSAP) in Boulder County, Colorado University, BFR/BPD, Longmont FD/PD, and Boulder County. Twenty-four of the 26 fire agencies in the County are dispatched by Boulder County.

The Boulder Police Department is responsible for all public safety 911 access and communications services, including police, fire, and EMS dispatching. The oversight of the Communications Center is provided by the Staff and Support Services Division of the Police Department, and day-to-day operational oversight is provided by a non-uniformed communications manager. There are 26 authorized dispatchers and 4 Dispatcher Supervisors, all qualified to operate in police, fire, and EMS dispatching. The center is also staffed with a System Administrator, an Administrative Assistant and the Communications Manager. The minimum staffing is four personnel, one for the police radio channel, one for fire and EMS, one on the data channel and one dedicated 911 call-taker. If necessary, the supervisor can fill in at any position.

For medical emergencies, the dispatch center used Emergency Medical Dispatch (EMD) through ProQA software. During an emergency medical call, ProQA guides the dispatcher through the EMD process collecting the vital information from the caller, obtaining the patient's status, choosing an appropriate dispatch level, and instructing the caller with medically approved protocols until the dispatched units arrive at the scene. The EMD'd calls are prioritized using the Dispatch Determinant Theory.

Once the EMD determines the level of concern using the answers to key questions and the additional information, the proper dispatch determinant can be selected. There are six dispatch determinant categories²³:

A = Alpha B = Bravo C = Charlie D = Delta E = Echo Ω = Omega.

Facilities and Apparatus

The department operates out 10 facilities of which seven are primary response stations. The average age of the primary fire stations is approximately 46 years of age. The remaining facilities provide a variety of services to the department including apparatus maintenance, training, and facilities maintenance. The training center is a regional training facility shared with other County departments. Most of the Department’s management and administrative functions are located at Fire Headquarters, a shared building with Human Resources and Innovation and Technology.

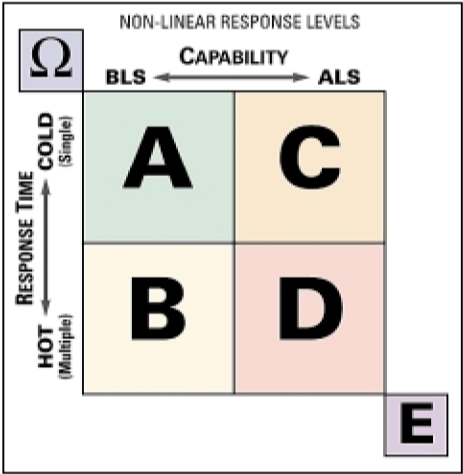


Image 14. Non-Linear Response Level Theory

²³ The Principles of Emergency Medical Dispatch Third Edition (v11.1)

All stations have one engine/pumper. The minimum staffing on a pumper is three personnel: one officer, one fire engineer, and one firefighter. The role of the engine company during fire suppression operations is to pump water onto the fire through a variety of fire hoses and associated appliances to lower the temperature of the fuel below its ignition temperature thereby extinguishing the fire. The engine crew also operates hose lines, conducts search and rescue, and performs any other duties conducive to quick and effective fire containment that contributes to saving lives and protecting property. This unit and crew provides BLS EMS as well. There is one truck and one Battalion chief in the system, both respond from station 1.

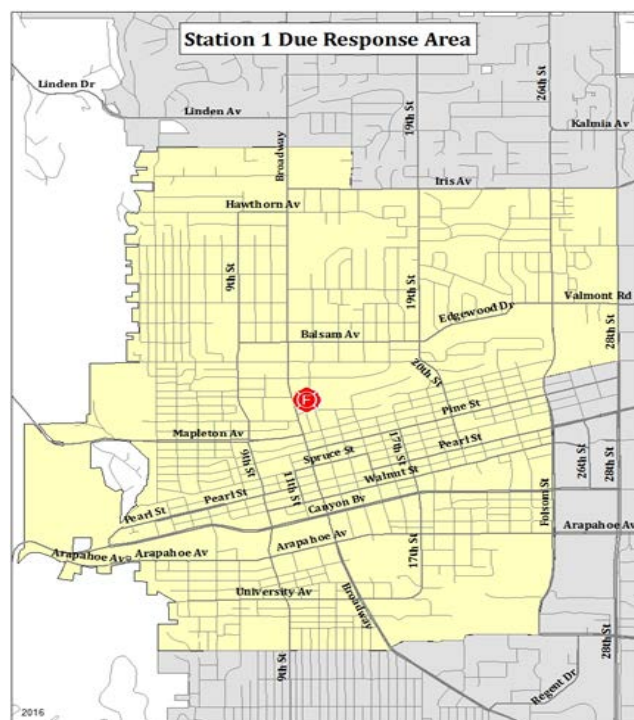
Station 1



Station 1 provides services to central Boulder including the Pearl Street Mall and responds to approximately 4,500 emergency calls per year.

STATION 1 APPARATUS

TYPE	Year	Make	Model	Staffing
ENGINE 2501	2016	Pierce	Enforcer (Pumper)	3
TRUCK 2516	2012	Pierce	Platform (100')	3
BC CAR	2011	Ford	F150	1



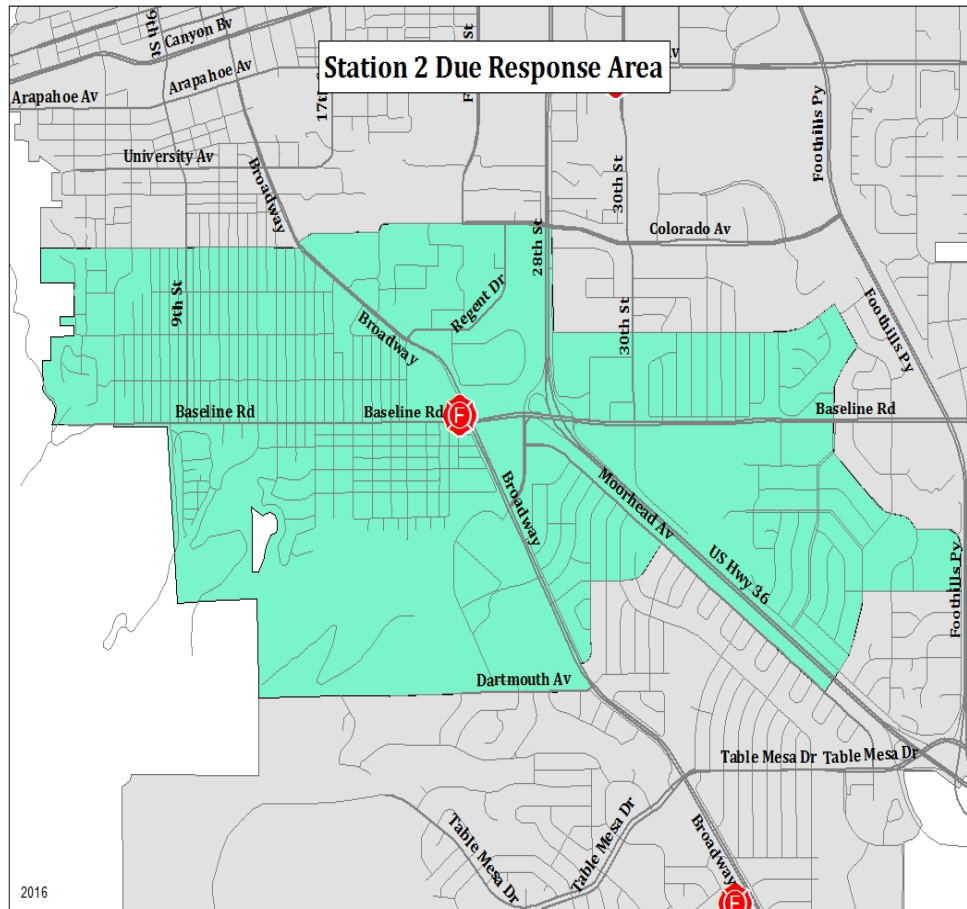
Station 2



Station 2 provides services to the University of Colorado and University Hill area. Station 2 responds to approximately 2,800 emergency calls a year.

STATION 2 APPARATUS

TYPE	Year	Make	Model	Staffing
ENGINE 2502	2010	Pierce	Arrow XT (75')	3
ENGINE 2538	2010	Pierce	Contender Type III	Cross Staffed



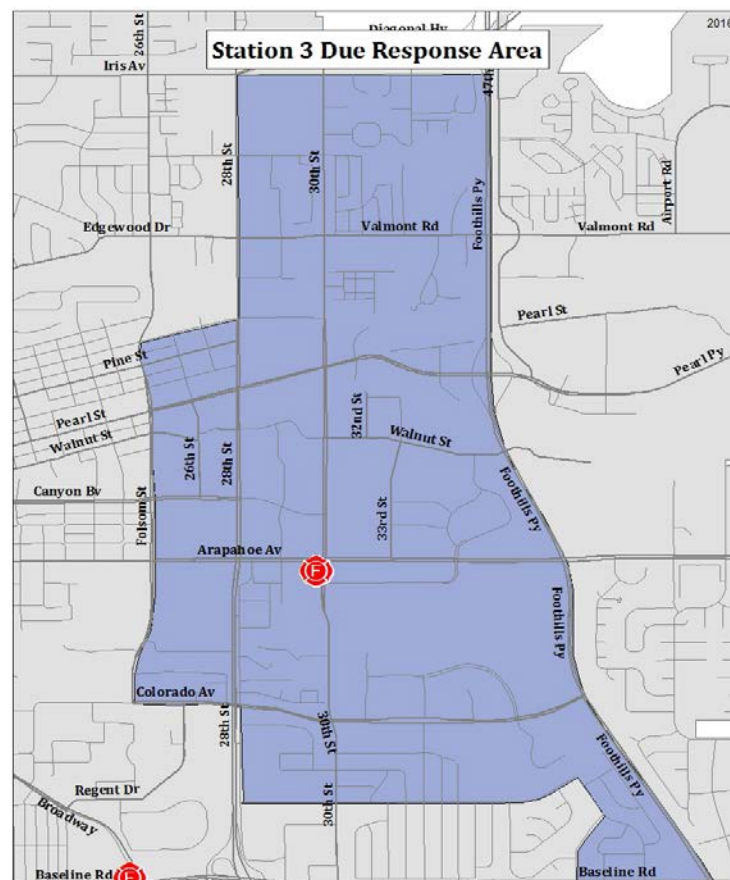
Station 3



Station 3 covers the central portion of the city and responds to approximately 2,400 emergency calls per year. The Water Rescue Team is based out of Station 3.

STATION 3 APPARATUS

TYPE	Year	Make	Model	Staffing
ENGINE 2503	2011	Pierce	Arrow XT (75')	3
DIVE VAN 2521	2005	Freightliner	Cargo Van	Cross Staffed
BOAT			16' Flat Bottom	



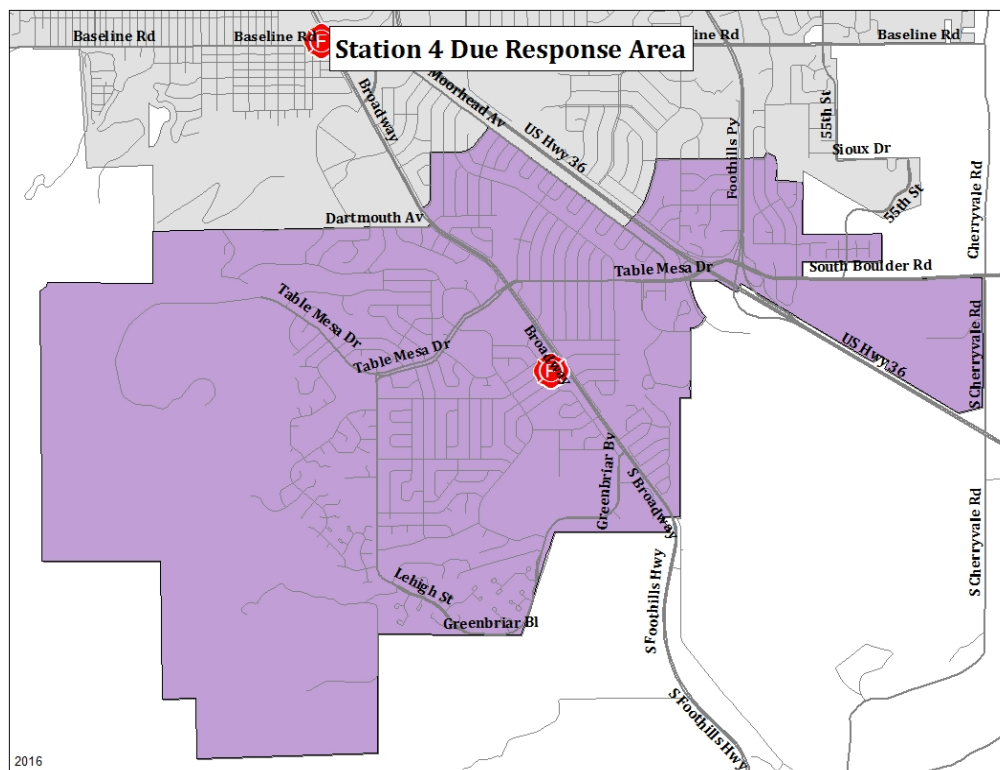
Station 4



Fire station 4 is staffed with a two-person “mini-pumper” to provide services to south Boulder. Station 4 increased to a three-person Type I Engine Company in 1991 and responds to approximately 800 emergency calls a year.

STATION 4 APPARATUS

TYPE	Year	Make	Model	Staffing
ENGINE 2504	2016	Pierce	Enforcer	3



Station 5

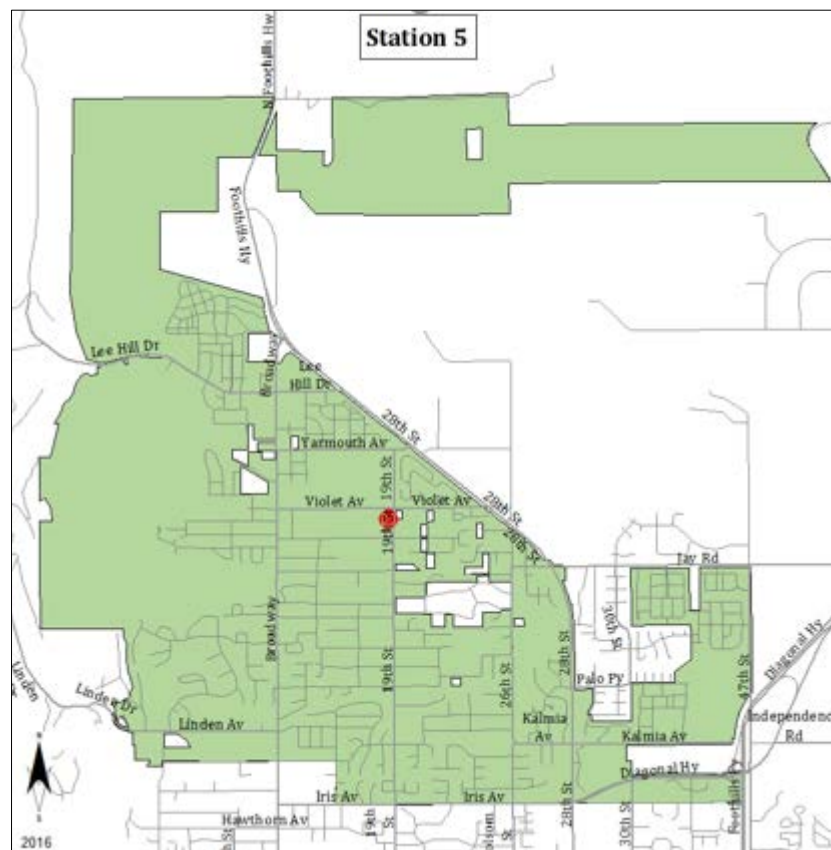


Station 5 was originally opened to provide service to north Boulder and was originally staffed with a two-person “mini-pumper”.

In 1992, the station was relocated to its current location and responds to approximately 1,100 emergency calls a year.

STATION 5 APPARATUS

TYPE	Year	Make	Model	Staffing
ENGINE 2505	2007	Pierce	Dash	3
UNIT 2532	2000	Ford	F550 Type VI	Cross Staffed



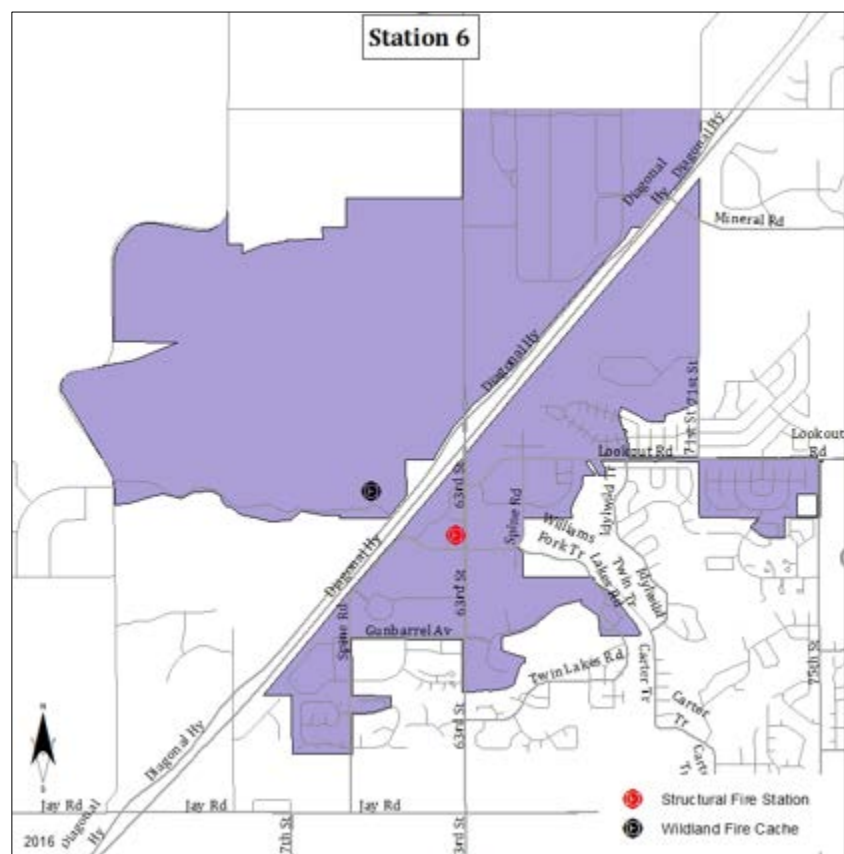
Station 6



Fire Station 6 was built to cover the Gunbarrel area and IBM headquarters. Fire Station 6 responds to approximately 300 emergency calls a year.

STATION 6 APPARATUS

TYPE	Year	Make	Model	Staffing
ENGINE 2506	2016	Pierce	Dash 55' Skyboom	3



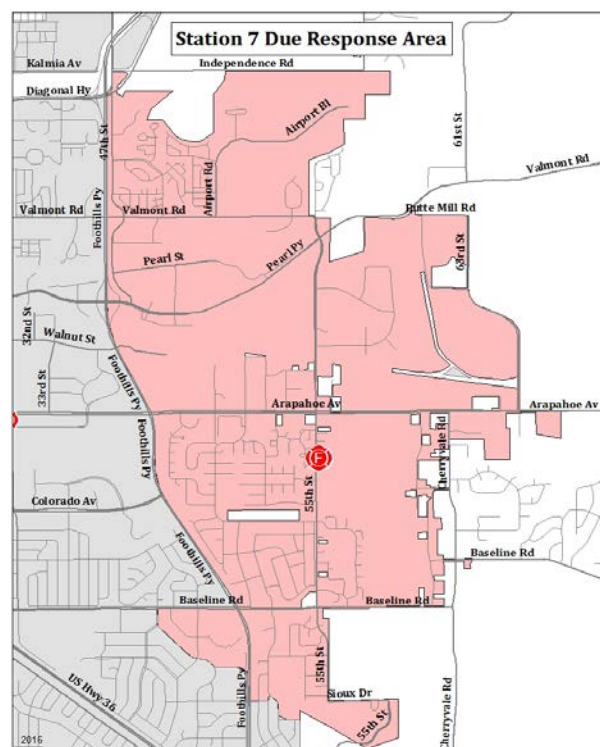
Station 7



Station 7 was built to provide services to eastern Boulder and responds to approximately 700 emergency calls a year. Station 7 houses a three-person Type I engine crew, Hazardous Materials truck, a hazardous materials trailer and a confined space trailer. The Hazardous Materials Team is stationed here as their home base.

STATION 7 APPARATUS

TYPE	Year	Make	Model	Pump/Tank	Staffing
ENGINE 2507	2004	Pierce	Arrow 75' Quint		3
2523	2008	Pierce	Contender Rescue	HazMat	Cross Staffed



Station 8



Station 8 is a dedicated Wildland Fire Station. Station 8 was completed in early 2015. The station is located on Boulder County Regional Fire Training grounds. The station houses the Wildland Division and BFR's fire cache, including 3 additional staff response vehicles not listed in the chart below.

This station consolidated multiple Wildland facilities that were used by BFR. Co-located at the Boulder Regional Fire Training Center (BRFTC) it will provide additional facilities when the training center is being used as an incident command post during major Boulder County emergencies.

Apparatus

VEHICLE	Type	Year	Make	Model	Staffing
2531 ²⁴	Type 6	2000	Ford Chassis	Custom	
2532	Type 6	2000	Ford Chassis	Custom	
2539	Type 3	2015	Pierce	Wildland Engine	
	Truck	2014	Ford	F-350	Cross Staffed
	Truck	2014	Ford	F-350	Cross Staffed

²⁴ Will be decommissioned by May 2018

Boulder Regional Fire Training Center



The fire department utilizes the BRFTC, located on approximately 10 acres east of the Boulder Reservoir, for much of its training activities. Opened in 2010, under a cooperative agreement between the City and Boulder County, the center is operated today under an intergovernmental agreement between the two.

The mission of the Boulder County Regional Fire Training Center (BCRFTC) is to promote safety through training. The BCRFTC provides the facilities to

foster education, practice and promotion of skills for our fire service personnel.

The main features of the facility consist of a classroom building, a training tower, and a burn building. The main facility holds three classrooms, two conference rooms, offices for the training staff, kitchen facilities, restrooms and locker room facilities, weight training area, and a large apparatus bay that can be used for inside training space or for parking fire trucks inside during inclement weather while crew attend training sessions. The training center can seat 230 people. Each classroom has seating for 100, with both classrooms connected there is seating for 200. Additional seating is available in both conference rooms; the first floor can accommodate 10 seats, and the second-floor conference room can accommodate 20 seats. If needed, the training center could accommodate an additional 250-300 in the apparatus bay. Training support functions like laundry and breathing air refill are also in this building.

The training tower is a five-story building providing numerous props and training opportunities. Ladder training, high-rise operations, rappelling, roof smoke ventilation, and confined space rescue are some of the skills that can be practiced in this building. The burn building is used to simulate fire attack, search and rescue, smoke ventilation, and a variety of other firefighting skills. Clean wooden pallets are burned to create just enough fire and smoke for training.

Other features of the training center include:

- A pump test area for annual pump training
- Vehicle extrication areas for crews to become proficient in automobile extrication
- A propane car fire simulator for crews to practice proper vehicle extinguishment techniques.
- Large driving area for cone course for apparatus operation

Insurance Services Office (ISO)

The Fire Suppression Rating Schedule (FSRS) is a manual containing the criteria ISO uses in reviewing the fire prevention and fire suppression capabilities of individual communities or fire protection areas. The schedule measures the major elements of a community's fire protection system and develops a numerical grading using credits, called a Public Protection Classification (PPC™). The FSRS utilizes nationally accepted standards to compile the PPC.

During the last evaluation in 2015, BFR was rated an ISO 03/3X. Class 1 through Class 8 represent fire suppression systems that includes an FSRS credible dispatch center, fire department and water supply. In a split classification, the first class applies to properties beyond 1,000 feet of a hydrant or alternate water supply. The second class applies to properties beyond 1,000 feet of a fire hydrant but within 5 road miles of a recognized fire station.

Distribution of PPC Grades

The 2015 published countrywide distribution of communities by the PPC grade is as follows:

Countrywide



FSRS Feature	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	2.55	3
422. Credit for Telecommunicators	2.75	4
432. Credit for Dispatch Circuits	1.80	3
440. Credit for Emergency Communications	7.10	10
Fire Department		
513. Credit for Engine Companies	5.81	6
523. Credit for Reserve Pumpers	0.48	0.50
532. Credit for Pump Capacity	3.00	3
549. Credit for Ladder Service	1.72	4
553. Credit for Reserve Ladder and Service Trucks	0.12	0.50
561. Credit for Deployment Analysis	7.35	10
571. Credit for Company Personnel	7.01	15
581. Credit for Training	6.34	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	33.83	50
Water Supply		
616. Credit for Supply System	29.01	30
621. Credit for Hydrants	2.84	3
631. Credit for Inspection and Flow Testing	2.40	7
640. Credit for Water Supply	34.25	40
Divergence	-3.59	-
1050. Community Risk Reduction	4.37	5.50
Total Credit	75.96	105.50

Table 7. FSRS Table

Community Expectations

The 2014 Boulder Community Survey indicated that 82% of respondents reported they felt at least somewhat safe from structural or house fires, a rating that was similar to the national benchmark and the same as reported in 2007. Nearly six in 10 of those completing the questionnaire felt safe from wildland fires, a decrease from previous years, perhaps due to the experience of the Four Mile Canyon fire in 2010. Ratings for fire response and EMS were up slightly from 2007 and were comparable to ratings in other communities²⁵.

²⁵ City of Boulder, 2014

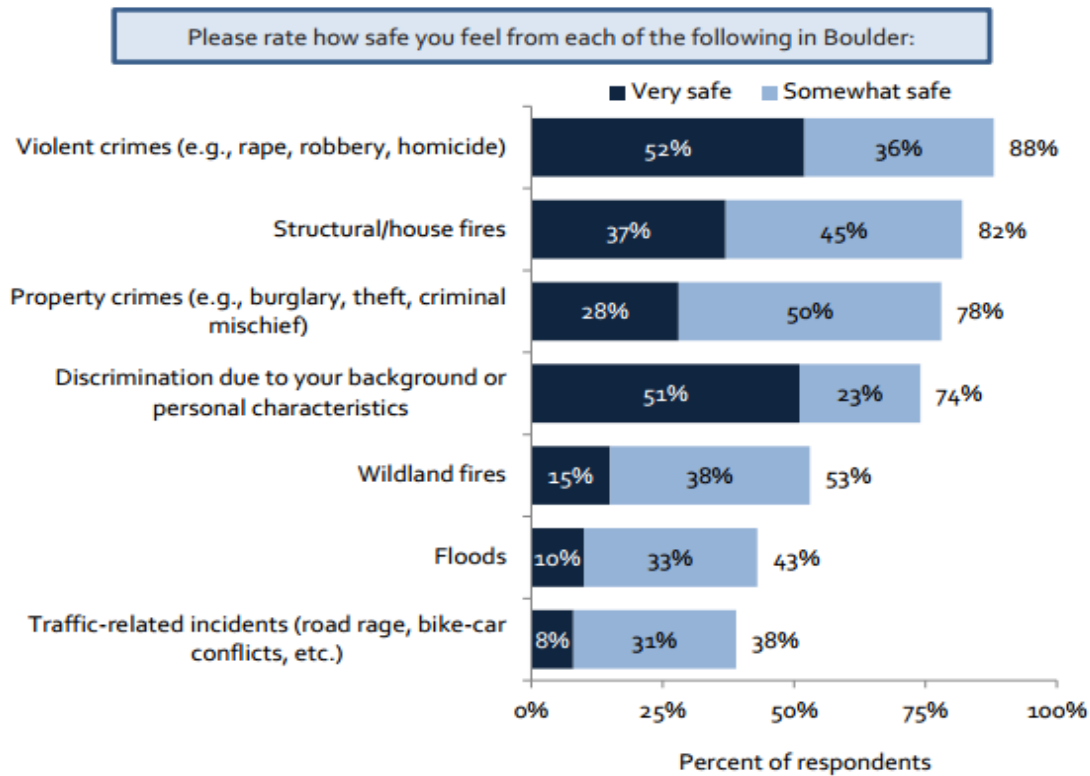


Chart 8. Boulder Community Survey Results

According to the Boulder Valley Comprehensive Plan, Urban Service Criteria and Standards are used to set the benchmark for providing a full range of urban services in the Boulder Valley. A basic premise of the Boulder Valley Comprehensive Plan is that “adequate urban facilities and services” are a prerequisite for urban development. Within the Boulder Valley, the City of Boulder is the provider of choice for urban services since it can meet all the service provision requirements embodied in the Urban Service Criteria and Standards. In 1970, the City of Boulder and Boulder County jointly adopted a comprehensive plan that guides land use decisions in the Boulder Valley. The comprehensive plan provides a general statement of the community’s desires for future development and preservation of the Boulder Valley. The principles of sustainability and resilience are part of the framework of the comprehensive plan.²⁶

Five criteria are to be used in the determination of the adequacy of proposed or existing urban facilities and services. The Urban Service Standards are written within the framework of these criteria. They include responsiveness to public objectives, sufficiency of financing, operational effectiveness, proficiency of personnel, and location/adequacy of equipment and facilities.

²⁶ BVCP pg.4

The goals for Urban Fire Protection and Emergency care outlined within the Boulder Valley Comprehensive Plan are as follows:

1. Responsiveness to Public Objectives:

- a) Consistently evaluate current service delivery for fire protection, all-hazard response and EMS.
- b) Evaluate current service delivery against national standards, national guidelines and customer expectations.
- c) Develop benchmarks for improvement across all areas of service delivery.

2. Sufficiency of Financing:

- a) Ensure current financing supports existing level of service delivery.
- b) Plan for future financing to support benchmark service delivery.
- c) Be organized to receive and utilize grants and state and federal funds when available.

3. Operational Effectiveness:

a) Fire and EMS response:

- i. Provide fire and EMS response 24 hours per day, 365 days per year.
- ii. Arrive at fires and medical emergencies, staffed and equipped to provide fire suppression and/or medical care, within six minutes of the original 911 call ninety percent of the time.
- iii. Have an ERF dictated by the nature of the emergency, on scene within eleven minutes of the original 911 call ninety percent of the time.
- iv. Collaborate with neighboring jurisdictions to supplement response when additional resources are needed.

b) All-Hazard response:

- i. Equip and train personnel to respond to technical rescues, hazardous materials incidents, water rescues and natural disasters.
- ii. Collaborate with neighboring jurisdictions to supplement response when additional resources are needed.

c) Wildland Fire response and mitigation:

- i. Equip and train personnel to respond to wildland fires in urban and rural settings.
- ii. Collaborate with neighboring jurisdictions to supplement response when additional resources are needed.
- iii. Integrate wildfire hazard mitigation planning with urban design and development.

d) Community Risk Reduction:

- i. Provide fire safety education for all ages and demographic groups.
- ii. Adopt fire and life safety codes.
- iii. Review and approve plans for fire safety systems for new and remodeled buildings for compliance with fire and life safety codes.

d) Community Risk Reduction (cont.)

- iv. Regularly inspect businesses and high hazard occupancies for code compliance.
- v. Provide voluntary home safety inspections.
- vi. Work with the Local Emergency Planning Commission to maintain an inventory of hazardous materials storage.
- vii. Review the design of land development in relation to emergency response, access and available water supply.
- viii. Identify and mitigate risks associated with the negative impacts of climate change.

4. Proficiency of Personnel:

- a) Firefighters shall be trained to perform the duties of their assigned position as well as those they may be expected to perform outside their assigned position.
- b) Firefighters shall maintain appropriate certifications as dictated by the department, state and federal regulations.
- c) EMS providers will be trained to the level of EMT-Basic or EMT-Paramedic based on whether they provide basic or advanced life support and will maintain that level of certification based on state and federal requirements.
- d) Hazardous materials responders will achieve and maintain training and certification at the Operational or Technician level.
- e) Wildland firefighters will achieve and maintain training and certification based on their expected level of response.
- f) Administrative personnel will achieve and maintain training and certification based on their assigned job duties.

5. Adequacy of Equipment and Facilities:

- a) Fire stations will be located in such a manner as to achieve response time goals. See Operational Effectiveness 3.a.
- b) Fire stations will be constructed in such a manner as to provide adequate, appropriate and secure living space for current and anticipated staffing needs. Considerations will include privacy, nondiscrimination and occupational safety.
- c) Fire stations will be constructed in a manner to help the city meet its climate action goals.
- d) Fire apparatus and equipment will be designed and purchased to meet the current and expected needs of the department.
- e) See also “Public Water” for information on fire hydrant requirements²⁷

²⁷ Boulder Valley Comprehensive Plan