



BURNSVILLE FIRE DEPARTMENT

Standards of Response Coverage



TABLE OF CONTENTS

EXECUTIVE SUMMARY	1-2	EMS Statistical Information (2024)	
INTRODUCTION	3-12	Emergency Medical Dispatch	
Legal Basis		EMS Billing	
Regulation		Prevention	
History of the Agency		Fire Investigation	
ISO Rating & Overview		Permits and Inspections	
Governance		Preplans	
Vision		Public Education	
Values		New Firefighter Background Checks	
Strategic Priorities		Private Hydrant	
Mission Statement and Cultural Values		Recreational Fire	
FINANCIAL BASIS	13-16	Community Outreach	
Financial Management Plan		Mobile Volunteer Network	
Tax Base		Cardiopulmonary Resuscitation – Heart Restart	
Ethics of Purchasing with Public Funds		Smoke Alarms/Carbon Monoxide	
Fire Department Budget		REVIEW OF SYSTEM PERFORMANCE.....	113-164
AREA DESCRIPTION	17-24	COMMUNITY EXPECTATIONS & PERFORMANCE	165-171
Topography		OVERALL EVALUATION, CONCLUSION & RECOMMENDATIONS ...	172-188
Climate		TABLE OF FIGURES, CHARTS & TABLES	189-197
Population and Demographics		APPENDIX	198-199
COMMUNITY RISK ASSESSMENT & RISK LEVELS	25-55		
Potential Risk			
Disaster Potential			
Property Risk			
Infrastructure			
Hazmat			
Response Obstacles			
Target Hazards			
Historical Risk			
Fire Suppression Risk			
SERVICES PROVIDED	56-112		
Fire Suppression			
Fire Training Requirements (initial/ongoing)			
EMS Training			
Fire Statistical Information (2024)			
Emergency Fire Dispatch			
Non-EMS Calls			
Rescue			
Hazardous Materials			
Emergency Medical Service (EMS)			

EXECUTIVE SUMMARY

The Burnsville Fire Department has a proud, four-decade history of providing high-level fire suppression, Emergency Medical Services (EMS), and prevention services to the community.

Over the past decade, a range of emerging trends have created new challenges for the Burnsville Fire Department and placed new demands on it.

The overall call volume for emergency services has grown significantly. This increase is not only attributed to the rise in population but also to the increase in higher risk populations within the City of Burnsville. At the same time, the emergency calls are growing in complexity. As the community expands and ages, the Burnsville Fire Department faces an increasing number of calls that demand a wider range of responses, including medical emergencies, hazardous material incidents, and fire-related events. The rise in multi-family housing structures has led to an increase in the complexity of fires.

As experienced firefighters retire or resign, the Burnsville Fire Department has struggled to find candidates who meet the necessary qualifications and experience levels.

As a result, the Burnsville Fire Department has added a focus on recruiting fire trainees—individuals who can undergo the necessary training and certification processes once hired. This approach, while necessary, means that new recruits take longer to be fully trained and operational.

In the area of prevention, the Burnsville Fire Department focuses on education and risk reduction. The Burnsville Fire Department has seen a positive impact on fire statistics in multi-family complexes in recent years due to our risk reduction program.

The City of Burnsville, along with other communities, is experiencing an increase in demand for services, in particular, EMS services. Most communities are seeing this increase in demand due to many factors:

- Regional medical complexes with many clinics, urgent care and specialty care facilities.
- Increased demand for skilled medical care facilities such as nursing homes, assisted living, memory care and group homes.
- Aging infrastructure, including many multi-family dwellings over three decades old.
- Aging community (EMS demographics show the highest demand for service are from the most senior age groups within the community).

The fire/EMS industry continues to evolve and become more complex. Whether it is the response to active violence situations or how heart attacks are treated, the fire/EMS response has changed and improved over the past decade. All these changes take time, training and resources to implement.

In return for the investment in these changes the community receives a higher level of service and readiness, which has shown to lead to better outcomes.

It is imperative that the community continues to invest in additional staffing resources in the future to maintain the high level of service and readiness needed to meet the demand for services. This investment will ensure that the best practice model continues to deliver high-level response and care to the community. Without further investment, the Burnsville Fire Department will become increasingly reliant on mutual aid, leading to longer response times as units from other communities respond to emergencies in Burnsville. The increased demand for service will also place additional demand on the Burnsville Fire Department fleet.

MATCHING RESOURCES TO RISK

Following a Community Hazard/Risk Assessment, fire service leaders prepare a plan for timely and sufficient coverage of all hazards and the adverse risk events that could occur. This plan is often referred to as Standards of Response Coverage.

Standards of Response Coverage can be defined as those written policies and procedures that establish the distribution and concentration of fixed and mobile resources of an organization¹.

- Resource distribution is associated with the geography of the community and travel time to emergencies.
- Distribution is typically measured by the percentage of the jurisdiction covered by the first-due units.
- Concentration is measured by the geographic arrangement of multiple resources, spaced so that an initial “effective response force” can arrive on scene within the time frames established by community expectation and fire service leadership.

Response time goals for first-due units (distribution) and for the total effective on-scene emergency response force (concentration) drives fire department objectives like fire station location, apparatus deployment and staffing levels.

The service level objectives established in any community drive response time performance by all responding resources and the assembly of effective firefighting (or EMS) response force on scene. Both response time performance and assembly times subsequently drive resource distribution and concentration.

If response times and force assembly times are low, it is an indicator that sufficient resources have been deployed and outcomes from risk events are more likely to be positive.

If response times and force assembly times are high, it is an indicator of insufficient resources and outcomes from risk events are more likely to be negative.

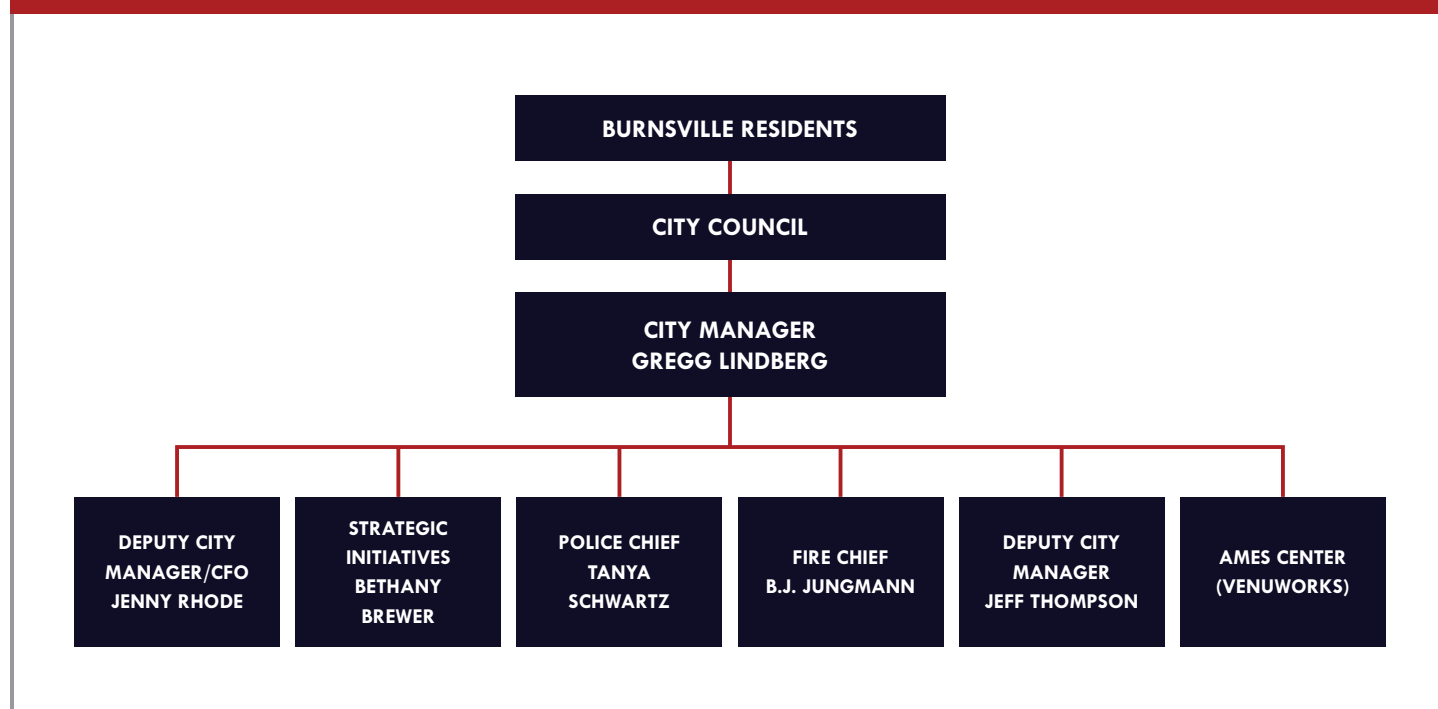
INTRODUCTION

This Standard of Response Coverage has been produced by members of the Burnsville Fire Department to evaluate and communicate the current level of service to the community and identify some of the future challenges the Burnsville Fire Department expects to face to maintain the current level of service.

LEGAL BASIS

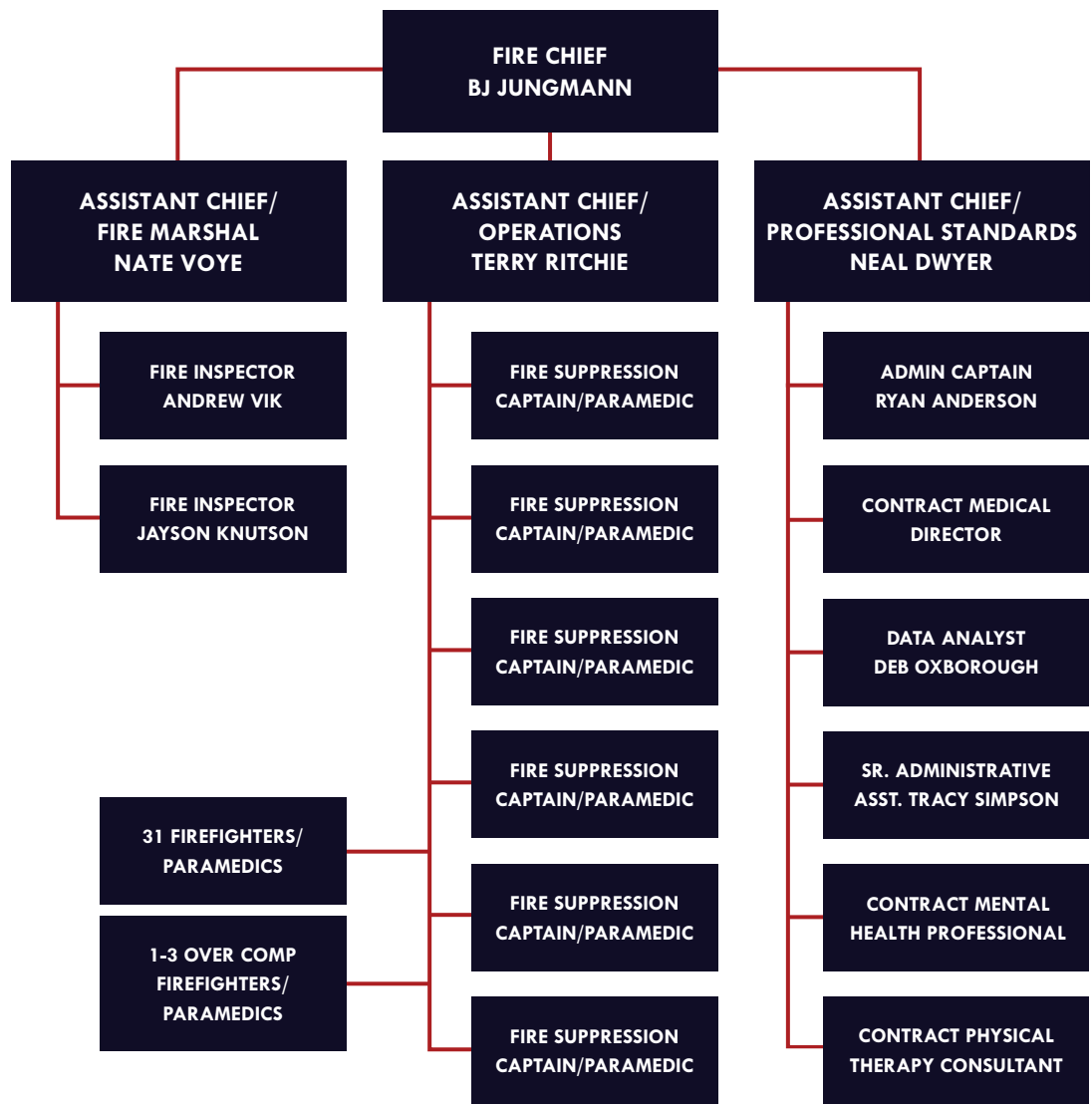
The City of Burnsville is a Statutory Plan B city organized under Minnesota Statute 412.541 with a City Council / City Manager form of government. The Burnsville City Council consists of a Mayor and four Council Members elected at-large. The City of Burnsville has implemented the Carver Governance model to establish and monitor service level expectations for the communityⁱⁱ.

Figure 1: City of Burnsville Organizational Chart



The Burnsville Fire Department is organized in compliance with Minnesota Statute 299N.01 and 299N.03. The Emergency Medical Services (EMS) component of the Burnsville Fire Department is established and operated in accordance with Minnesota Statute 144E and Minnesota Rule 4690. The City of Burnsville Code Title 5 establishes fire regulations for the city, including the adoption of the Minnesota State Fire Code.

Figure 2: Burnsville Fire Department Organizational Chart



REGULATION

The Burnsville Fire Department must maintain compliance with many regulations at both the state and federal level, and the Department also strives to meet the best practices of other industries. These industry best practices, while not required, can be enforced by the State Department of Labor and Industry (DLI) in accordance with the Occupational Safety and Health Administration (OSHA) under certain circumstances using the general duty clause (MS 182.653 subd 2).

The general duty clause states that the employer must provide an environment free from recognized hazards. When there is no clear guidance in state or federal regulations, the DLI looks to the industry consensus standards using the general duty clause, which for the fire service is generally the National Fire Protection Association (NFPA) standards.

Minnesota statutes and regulations with which the burnsville fire department maintains compliance include:

- Fire Code adoption and enforcement – 299F.011 and Rule 7511
- HIPAA patient information privacy – Federal Code 45CFR160 and 45CRF164
- Requirement to investigate fire loss of \$100 or greater – 299F.04
- Career firefighters required to be licensed in Minnesota – 299N
- Fire training requirements – 299N, OSHA and ISO (Insurance Service Office which rates fire protection in communities which can affect insurance rates)
- EMS training requirements - 144E.28
- Emergency Vehicle Operations – 169.17 and 169.03
- EMS licensing and certification – 144E.10 and Rule 4690
- OSHA regulations
- Emergency Communications Network (800MHZ radio system) – Chapter 403
- Safe place for newborns – 145.902
- Reporting requirements – 626.556 (mandated reporter)
- Hazmat response and preparation – 299F.095
- Medicare and Medicaid federal regulations

And many other National Fire Protection Association (NFPA) - consensus standards, which can be used under general duty clause by OSHA.

HISTORY OF THE AGENCY

The City of Burnsville was incorporated in 1964. In 1967, shortly after Burnsville became a city, a Public Safety Department was established by the Burnsville City Council. The Public Safety Department model covered both police and fire protection functions.

Prior to the City of Burnsville starting its own Fire Department as part of the Public Safety Department, fire protection was provided by the City of Savage and the City of Rosemount. The ambulance service was provided to the City of Burnsville by hospital-based ambulance services and Savage's Allen Towing, Smith Martin Ambulance (1973-1979) and Divine Redeemer Ambulance (1980-1984).

As the community continued to grow, so did the demand for public safety services. In 1981, with the Burnsville Fire Department responding to 544 calls that year, the Burnsville City Council directed the Public Safety Department to disband and create two separate departments: a police department and a fire department within the City of Burnsville structure.

In 1981, 23 full-time firefighters staffed the Burnsville Fire Department. Volunteer firefighters and Reserve firefighters were two programs in the community that assisted in augmenting the career fire department response.

Volunteer firefighters were citizens from within the community that became trained as firefighters and assisted as needed. Reserve firefighters were other City of Burnsville employees that were allowed to be trained as firefighters and respond to emergencies as needed as another function of their job for the city.

The City of Burnsville and the Burnsville Fire Department continued to evolve and in 1984 the Burnsville City Council authorized the purchase of two ambulances and the hiring of seven career firefighter/paramedics to implement its own Emergency Medical Services (EMS) system and ambulance transportation program within the Burnsville Fire Department.

After hiring the seven paramedics, the Burnsville Fire Department started to provide Advanced Life Support (ALS) transport ambulance services to the community.

In the first year of operating a fire department-based ambulance service, the Burnsville Fire Department responded to a total of 1,163 calls. The average response time to medical

calls was reduced from 7 minutes by Divine Redeemer to 4.2 minutes by the Burnsville Fire Department. The City of Burnsville's population in 1985 was 40,111.

In 1987, the City of Burnsville entered into a collaborative partnership with the Cities of Apple Valley, Lakeville and Eagan to collaboratively create ABLE, a fire training facility that all cities could use equally to meet and keep up with the changes in training requirements of firefighting. By 1990, the City of Burnsville population had grown to 51,093, and requests for service grew, too. The Burnsville Fire Department responded to 1,959 calls for service in 1985 and in 2,872 calls in 1990.

In 1995, with a population of 54,525, the Reserve and Volunteer Firefighter programs were cut due to dwindling participant numbers and budget reductions. Under the direction of the Fire Chief, a committee called the Process Improvement Committee (PI) evolved that year. The PI committee members worked diligently for five years to achieve the status of Fire Accreditation for the Burnsville Fire Department in 2000.

The 1990's also brought the inception of technical rescue and the need to be prepared for situations that required additional training, such as water, high angle, trench, machinery, and confined space rescue. A Technical Rescue Team (TRT) was formed in 1999 from members of the Burnsville Fire Department.

In 2008, the City of Burnsville and the Burnsville Fire Department partnered with all of the cities in Dakota County to create a county wide dispatch center (Dakota County Communications Center, referred to as DCC). In 2024, DCC changed its name to Dakota 911.

In 2009, the rapid decline of the economy created a shortfall in general fund revenue. The Burnsville Fire Department had to cut one Fire Inspector position, which was performed through attrition. The loss of a Fire Inspector required the Burnsville Fire Department to reprioritize the workload in the Fire Prevention Division to accommodate the reduced workforce.

HISTORY OF THE AGENCY, CONTINUED...

In 2011, the old Fire Station No. 1 at 911 West 140th Street received a long-planned addition. From 2012-2013, ABLE was rebuilt. In 2015, the Burnsville Fire Department was awarded a two-year Staffing for Adequate Fire and Emergency Response (SAFER) Grant from the federal government. The grant enabled the Burnsville Fire Department to hire four additional firefighter/paramedics to work a 12-hour rotating shift every day of the week.

The 2020 budget allowed for the full funding of four SAFER grant positions and additionally filled the need for one additional Fire Inspector and up to three overcomp Firefighter/Paramedic positions. The overcomp positions allow the Burnsville Fire Department to cover turnover, as well as long-term illness and injury.

The Burnsville Fire Department began with 23 firefighters in 1981, responding to almost 600 calls for service, while in 2024 the Burnsville Fire Department had up to 56 firefighters and responded to over 9,800 calls for service.

The original Fire Station No.1, built in 1975 and remodeled in 1989, served the City of Burnsville community for over 40 years. The 2015 space needs assessment determined that the current location of Fire Station No. 1 was on a “tight site,” leaving no room for modifications in the future to adapt to the evolving needs of the Burnsville Fire Department.

In 2019, nine potential sites were evaluated for the future location of Fire Station No. 1. The 4.42-acre site at 143rd and Newton proved to be the most feasible and was purchased by the City of Burnsville. The budget for the construction of the new facility was \$18,600,000.

The station was designed to be both functional for today’s needs but forward-thinking enough for future expansion and to be a model for firefighter health and wellness. The Burnsville Fire Department began fully operating out of the new station in January 2022.

Figure 3: Burnsville Fire Department Full Time Equivalent 1981-2024

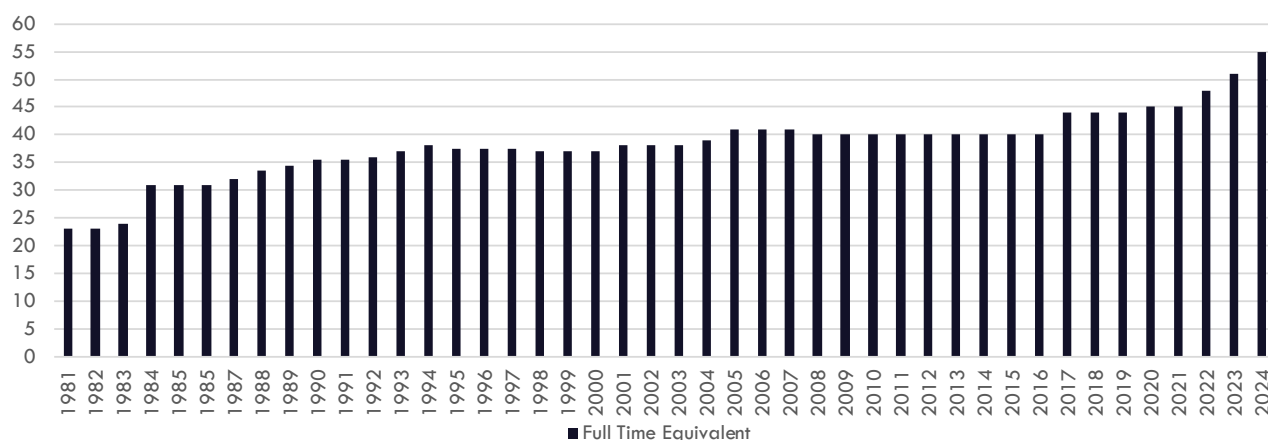


Figure 4: Call Volume and FTE Personnel 1985-2024 (Total call number excludes Personnel Injury reports)

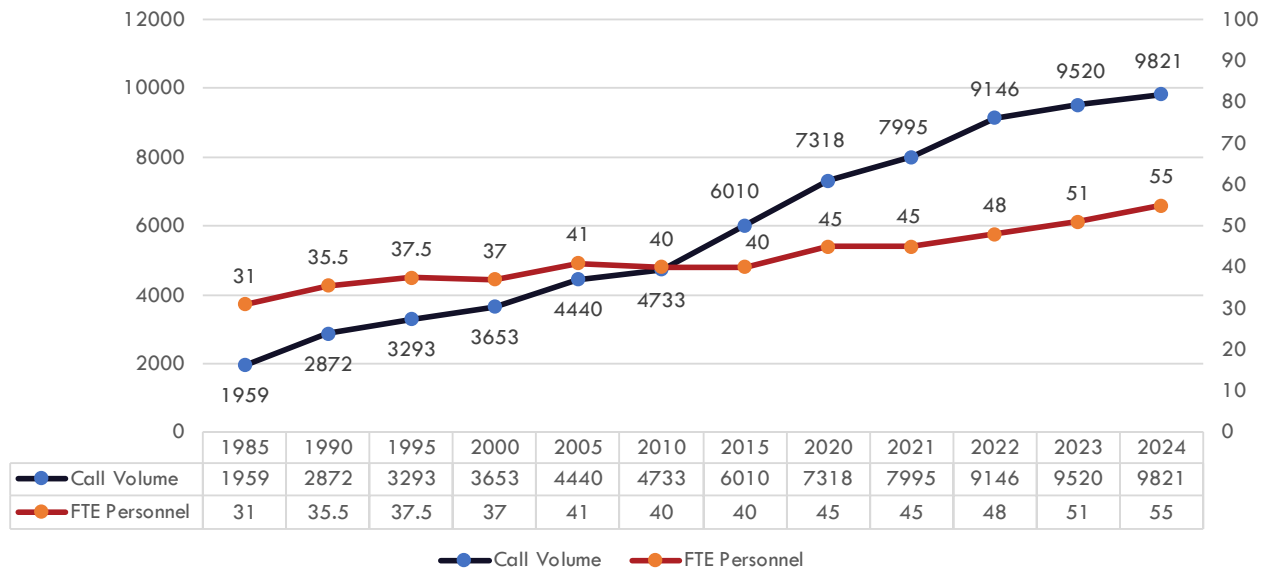


Figure 5: Call Volume and Total Number of Shift Personnel 1985-2024 (Total call number excludes Personnel Injury reports)

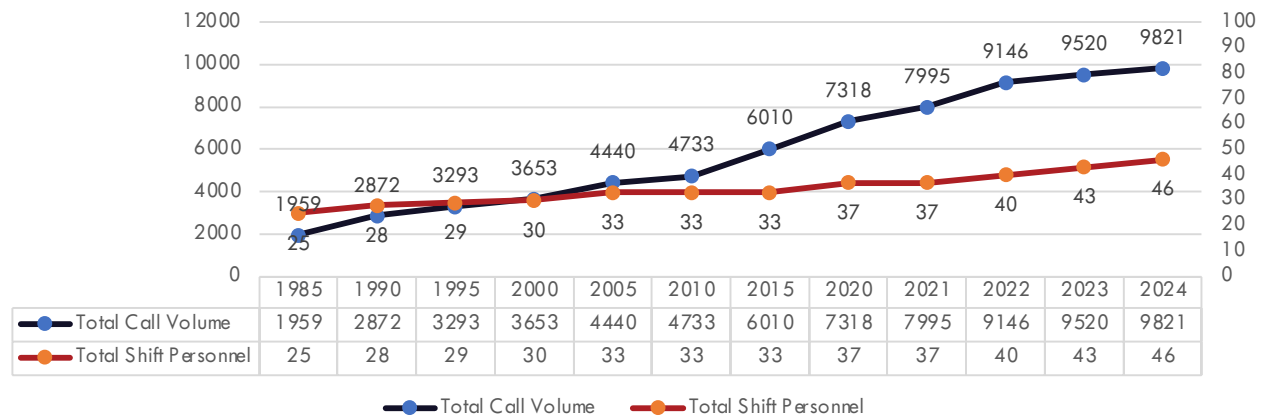


Figure 6: Number of Calls per Shift Personnel (Total Call Volume / by Total Number of Shift Personnel; total call number excludes Personnel Injury reports)

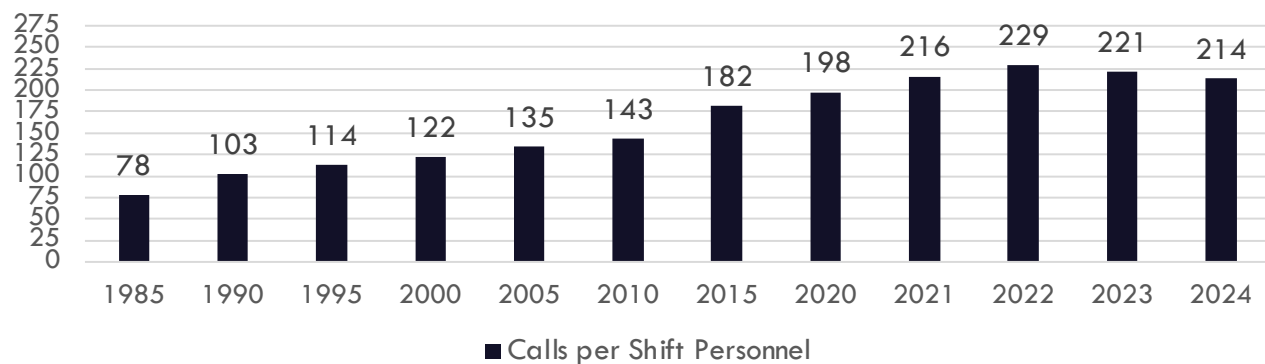
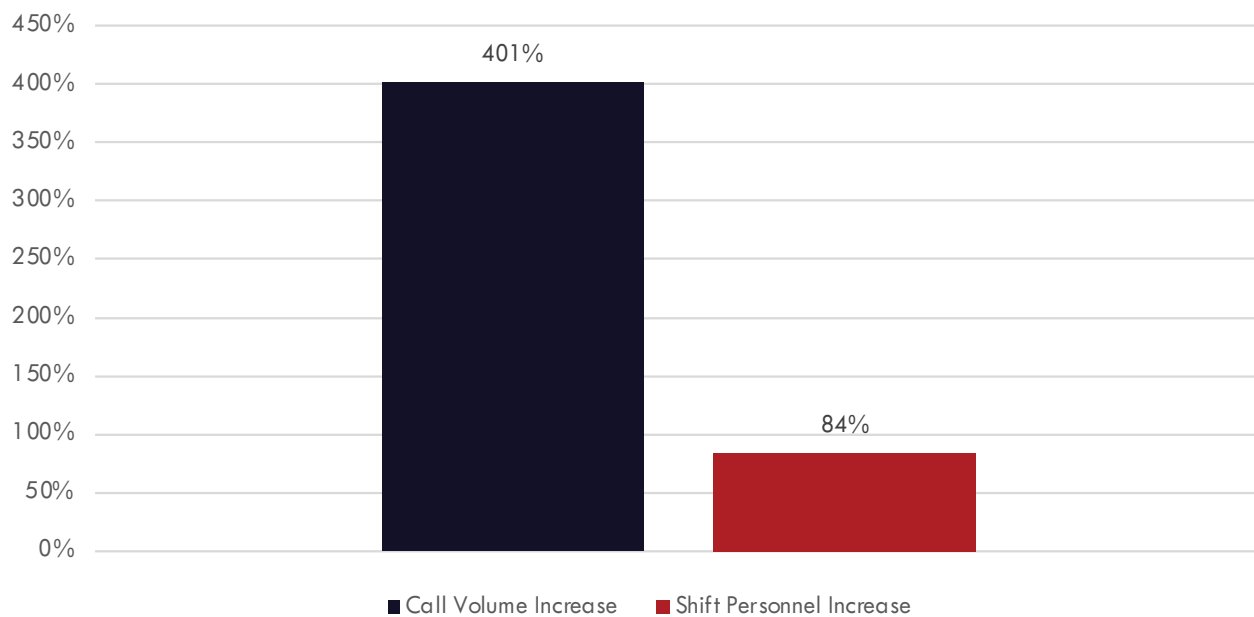


Figure 7: Service Demand versus Personnel Resources from 1985-2024



INSURANCE SERVICES OFFICE (ISO) RATING & OVERVIEW

ISO provides a public protection classification (PPC) that is used by some insurance companies to set premiums for fire protection based on this rating. The rating ranges from one to ten, with one being the highest rating. A rating of ten does not meet the minimum requirements for ISO. The ratings are based on the following categories:

- Needed water fire flow
- Emergency communications
- Fire department (equipment, staffing, training, distribution of apparatus, operations and community risk reduction)
- Water supply

The City of Burnsville's current rating is given a split classification of 3/10, as there are areas within the municipal boundaries that are greater than five road miles from a fire station. The areas that are outside the five road miles are assigned an ISO PPC rating of 10. Areas that are within five road miles are given an ISO PPC rating of 3.

The rating criteria have been modified over the past decade, which has benefited the City of Burnsville. The previous rating in 2012 was 4/10. The changes in the rating criteria since 2012 have given the Burnsville Fire Department credit for its risk reduction efforts compared to previous ratings.

ISO is an independent corporation that provides information to its users, which are insurance companies. While ISO states that a higher ISO rating will correlate to a decreased insurance premium, it has been difficult to quantify the decrease the community would experience; therefore, it is difficult to use ISO as a source to identify the best investment in fire protection within the community.

Figure 8: ISO Summary

Summary of PPC Review for Burnsville

FSRS Item	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	3.90	4
432. Credit for Dispatch Circuits	2.21	3
440. Credit for Emergency Communications	9.11	10
Fire Department		
513. Credit for Engine Companies	6.00	6
523. Credit for Reserve Pumper	0.00	0.5
532. Credit for Pumper Capacity	3.00	3
549. Credit for Ladder Service	3.14	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.5
561. Credit for Deployment Analysis	4.78	10
571. Credit for Company Personnel	8.92	15
581. Credit for Training	5.01	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	32.85	50
Water Supply		
616. Credit for Supply System	27.71	30
621. Credit for Hydrants	3.00	3
631. Credit for Inspection and Flow Testing	6.20	7
640. Credit for Water Supply	36.91	40
Divergence	-5.32	—
1050. Community Risk Reduction	3.87	5.50
Total Credit	77.42	105.5

Final Community Classification = 03/10

GOVERNANCE

The Burnsville City Council has adopted Vision, Values and Strategic Priorities. These statements are meant to create expectations both internally and externally as well as set to expectations at the policy level.

VISION

Burnsville is a vibrant city, boldly leading, welcoming to all.

ORGANIZATIONAL VALUES

We believe our public service to the community makes a difference through:

Innovation: We are on the leading edge

Collaboration: We value people and perspectives

Excellence: We expect the best

STRATEGIC PRIORITIES

- **Safety:** Burnsville is committed to the safety and wellbeing of our community and staff.
- **Community Engagement:** Burnsville is committed to supporting environmental, human, and financial vitality.
- **Community Vibrancy:** Burnsville is committed to creating events and places that enhance our community.
- **Sustainability:** Burnsville is committed to responsible stewardship of resources and land.
- **Infrastructure:** Burnsville is committed to meaningful relationships and community experiences.
- **Organizational Services:** Burnsville is committed to investing in our employees so they do the same for you.

The last adopted Burnsville City Council expectation for the Burnsville Fire Department on response time was, “Fire and Emergency Medical Services (EMS) will reach 80 percent of the emergency calls in nine minutes or less (inclusive of dispatch processing, turnout, and travel times).”

Figure 9: City of Burnsville Strategic Priorities



BURNSVILLE FIRE DEPARTMENT MISSION STATEMENT & CULTURAL VALUES

The Burnsville Fire Department has a mission statement and cultural values that complement the City of Burnsville's mission and values. The mission statement and cultural values were established many years ago and are a driving force within the Burnsville Fire Department.

The Burnsville Fire Department operates in a very dynamic environment in which no situation can be scripted. Therefore, the Burnsville Fire Department uses our mission and cultural values as a framework for decision making. The Burnsville Fire Department focuses on hiring exceptional staff who are motivated to serve the community. By integrating the mission and values, staff have continued to improve the service provided to the community. Below is the Burnsville Fire Department's mission and values.

OUR MISSION

The Burnsville Fire Department is dedicated to providing efficient and effective Fire, Medical, Rescue and Prevention Services of the highest quality.

OUR VALUES

The Burnsville Fire Department operates with a commitment to personal and organizational character, communication, collaboration, and competent excellence.

FINANCIAL BASIS

FINANCIAL MANAGEMENT PLAN

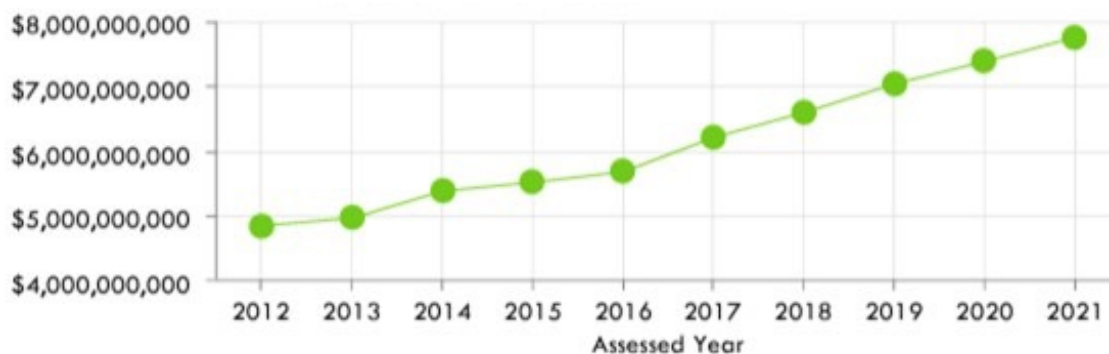
The City of Burnsville's Financial Management Plan is a financial policy that establishes principles to guide both staff and the Burnsville City Council to make consistent and informed financial decisions. The plan is reviewed annually and adopted by the Burnsville City Council. It addresses policies in the following areas: revenue management, capital improvements plan, debt management, cash and investments, infrastructure trust fund, accounting, auditing and financial reporting, fund balance/net position, economic development authority fund, risk management, operating budget and compensation philosophy.

The City of Burnsville operates on a calendar fiscal year and reports its year-end financial position in a Comprehensive Annual Financial Report (CAFR). S&P Global Ratings assigned the City of Burnsville's bonds a rating of AAA, which is the highest rating available and for which only a very small percentage of cities qualify due to the strict criteria for achieving it. The City of Burnsville has been awarded the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association for 28 consecutive years.

TAX BASE

The City of Burnsville's tax base is balanced between residential and commercial property. Total market value has fluctuated over the past 10 years consistent with the state-wide and nation-wide trend in the housing market. The total taxable market value has increased 60.3 percent over the past ten years from \$4.8 billion in 2012 to \$7.8 billion in 2021. In the six years, 2016-2021, the market value growth averaged 6.1 percent per year. The City of Burnsville continues to monitor valuation trends.

Figure 10: Taxable Market Values 2012-2021



Businesses contribute 24 percent of the City of Burnsville's total tax base. Approximately 2,500 businesses are in the City of Burnsville. The County Road 42 shopping corridor includes Burnsville Center, one of the largest indoor shopping centers in Minnesota with roughly 1.2 million square feet. The Burnsville Center is struggling to maintain a high occupancy rate. Other popular retailers are also located in the corridor making it a regional draw. While the city is known for retail shopping, ranking eighth in Minnesota, the City of Burnsville also ranks tenth in manufacturing and health care, ninth in information, and twelfth in scientific companiesⁱⁱⁱ.

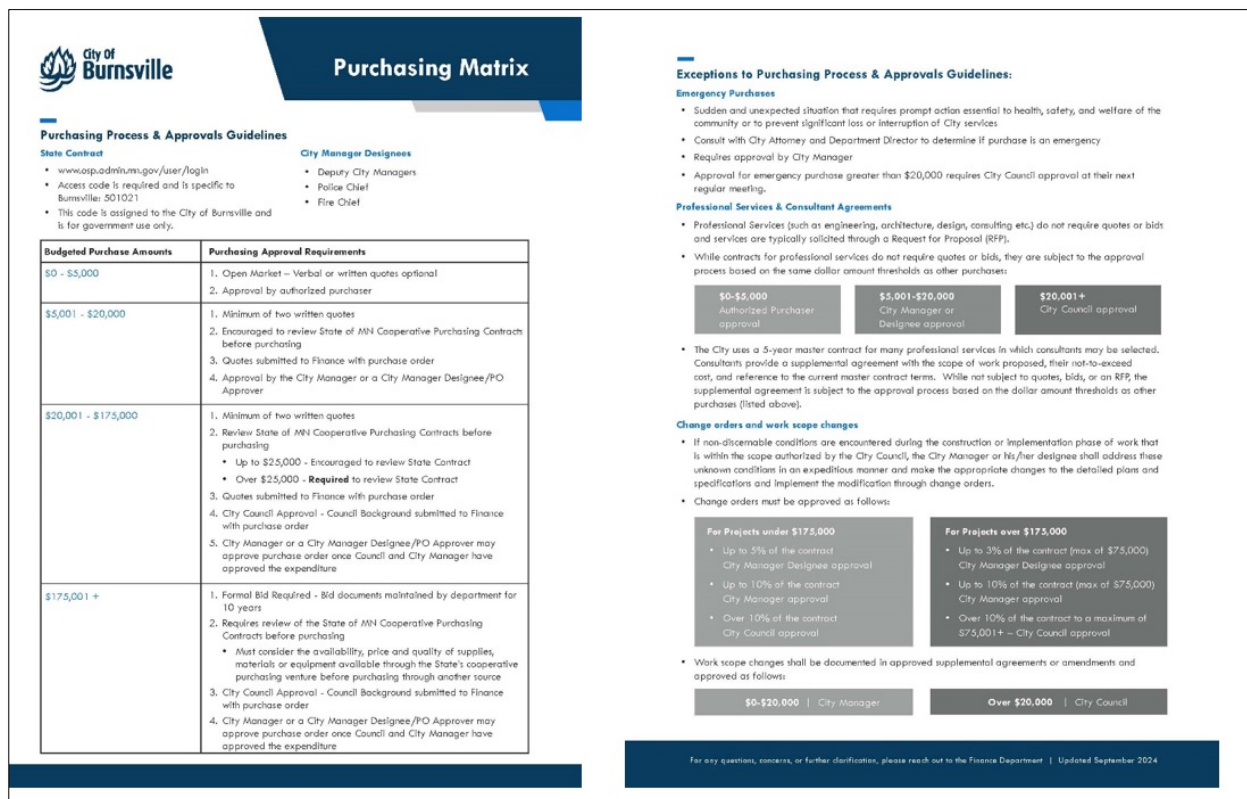
ETHICS OF PURCHASING WITH PUBLIC FUNDS

City of Burnsville staff must act impartially when it comes to purchasing. Legally, cities may only spend money on authorized purposes. Criteria must be met:

- There must be a public purpose for the expenditure.
- There must be explicit or implicit authority in State statute for the expenditure.
- The Burnsville City Council must authorize the expenditure (Minn. Stat. § 412.201).
- The purchase must follow established procedures.

Only staff authorized to make purchases for the City of Burnsville may do so. Therefore, it is critical that authorized staff be familiar with and following the City of Burnsville's purchasing procedures.

Figure 11: City of Burnsville Purchasing Matrix



FIRE DEPARTMENT BUDGET

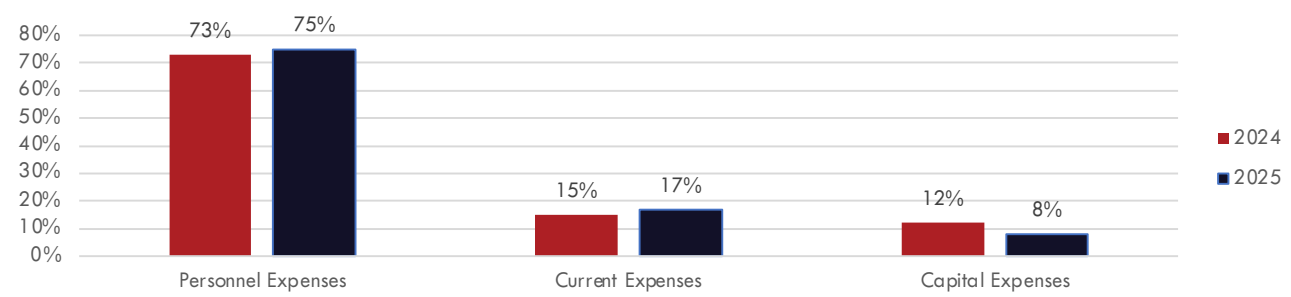
The Burnsville Fire Department operates a budget that is primarily composed of personnel expenses to provide reliable 24/7 minimum coverage at the fire stations. Current expenses cover items such as fuel, maintenance, fire station operation, supplies and training costs.

Capital expenses can be a significant part of the budget depending on the year. The Burnsville Fire Department has many capital costs such as apparatus and equipment. Equipment like self-contained breath apparatus (SCBA) and heart monitors have specific useful lifespans due to the safety function that each piece of equipment provides.

Figure 12: City of Burnsville 2025 Budget



Figure 13: Burnsville Fire Department Budget Comparison 2024 and 2025



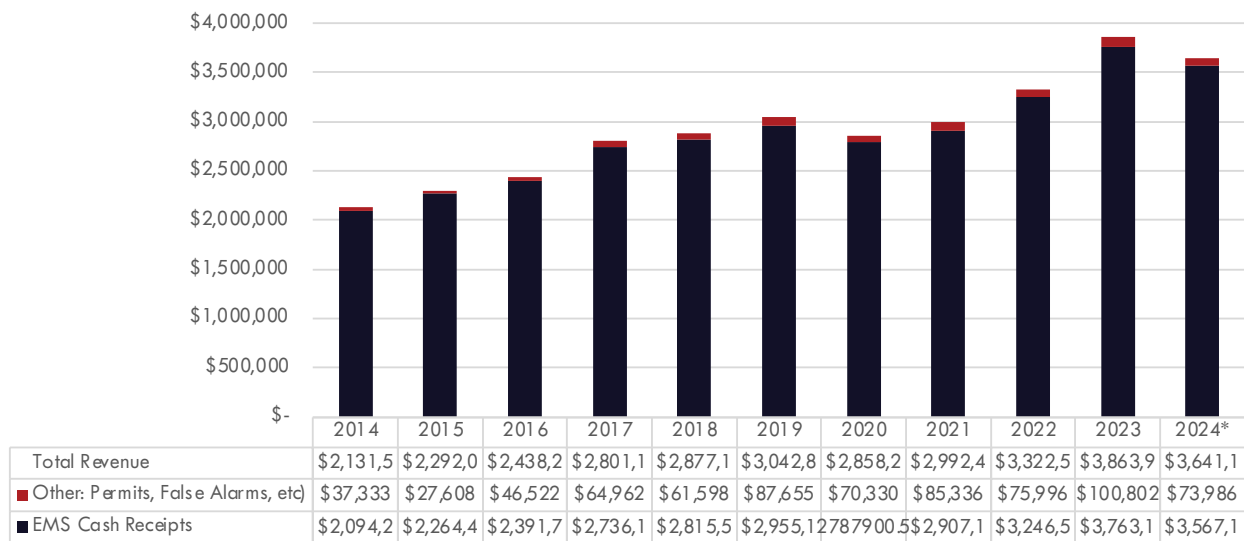
FINANCIAL BASIS

The Burnsville Fire Department has a gradually escalating operating budget when the changes year by year are taken into account. The significant operating budget increase shown below between 2020 and 2025 is for additional FTE positions identified in the previous Standard of Cover for firefighters and a Data Analyst. In 2017, four additional firefighter/paramedics were hired following the award of the SAFER grant from FEMA. The 2020 capital budget also included the replacement of Fire Station 1.

Figure 14: Burnsville Fire Department Operating Budget 2020-2025

YEAR	OPERATING BUDGET	CAPITAL
2025	\$13,140,094	\$1,132,300
2024	\$11,882,330	\$1,618,500
2023	\$10,329,601	\$825,500
2022	\$9,464,419	\$1,245,000
2021	\$8,647,367	\$723,600
2020	\$8,134,082	\$16,228,638

Figure 15: Total Burnsville Fire Department Revenue 2014-2024



* Two weeks in February did not respond to incidents due to LODD

The bulk of the Burnsville Fire Department's revenue comes from providing Emergency Medical Services (EMS). Sources of other revenue include permits, extrications, false alarms, gas line encroachment fees, etc. Generally, most revenue is collected within 120 days, but financial books are considered open for a few months into the following year to account for this lag.

AREA DESCRIPTION

The City of Burnsville is in western Dakota County, roughly 14 miles south of downtown Minneapolis. The City of Burnsville limits encompass about 24 square miles. The City of Burnsville has experienced many transitions over the past five decades including incorporation from a rural township in 1964, rapid suburban development during the 1990s, and maturing into a suburban community.

The City of Burnsville's development follows a traditional suburban pattern. The City of Burnsville developed as a suburban community due to its geographic location within the Twin Cities metropolitan area, good highway access, and proximity to the Minneapolis–Saint Paul International Airport (MSP). The City of Burnsville is home to an estimated 65,327 people, 26,290 households, 2,500 active businesses, and 3,300 acres of parks and wildlife refuge lands. The City of Burnsville is home to a regional mall comprised of 1.2 million square feet.

Figure 16: Comparative Population Data 1960-2020^{iv}

Year	City of Burnsville	City of Burnsville % of Dakota County Population	Dakota County	Metro Area
1960	2,716	3%	78,803	1,535,297
1970	19,940	14%	139,808	1,874,612
1980	35,674	18%	194,279	1,985,873
1990	51,288	19%	275,186	2,288,729
2000	60,220	17%	355,904	2,642,056
2010	60,306	15%	398,552	2,849,567
2020	64,317	15%	439,882	3,690,261
Change 2000-2010	6.7%		10%	30%

The number of people-per-acre is increasing in the City of Burnsville, which is attributed to the community nearing full buildout while also increasing residential densities in redeveloping areas. From 1990 to 2020, the number of people-per-acre increased from 2.95 to 4.03. The “people-per-acre” statistic is one indicator of sustainable development that helps to measure the consumption of natural resources and generation of waste. It is typically more cost efficient to provide services to a limited land area with a higher concentration of people than it is to provide services to sprawling areas with low density. The more people-per-acre (higher density consuming less raw land), the more sustainable and affordable an area is typically considered to be.

TOPOGRAPHY

The City of Burnsville has a significant variation in topography given its location on the south bank of the Minnesota River. This topography has advantages and challenges. The topography can assist in creating water pressure without the need for too many water towers. Some of the challenges include transportation in winter weather conditions and building arrangements that make it difficult to access all sides of the building during an emergency.

CLIMATE

The climate of the City of Burnsville includes extreme weather. The average temperature in the City of Burnsville is 45.2 degrees. The warmest month is July with an average temperature of 73.3 degrees and the coldest month is January with an average temperature of 13.5 degrees.

Precipitation averages 27.8 inches per year with an average of 111 days of precipitation. June is the wettest month and January is the driest month of the year. The City of Burnsville also averages 51.8 inches of snow per year. March is the snowiest month of the year with 11.4 inches of snow.

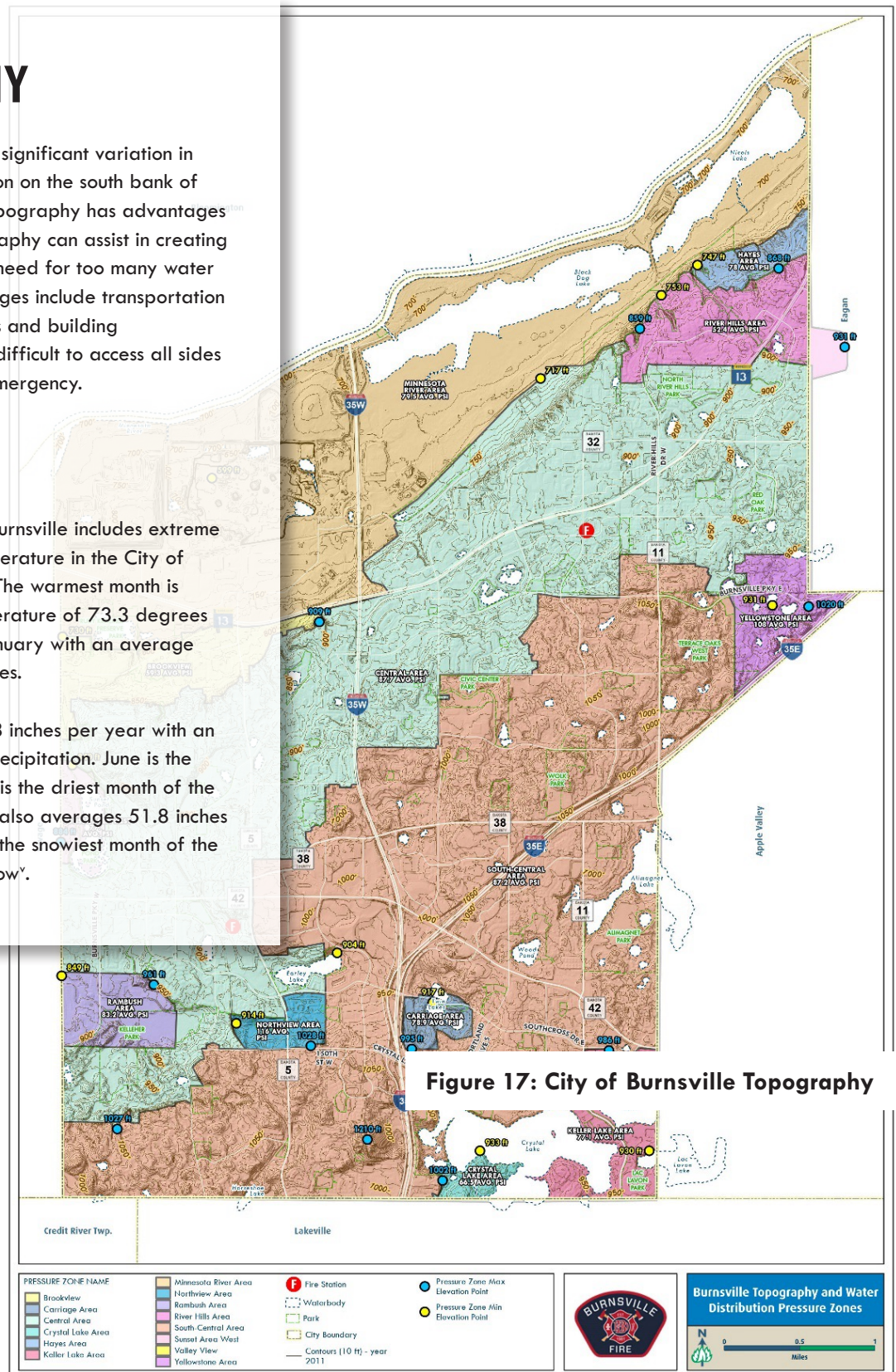


Figure 17: City of Burnsville Topography

POPULATION & DEMOGRAPHICS

According to Minnesota Compass (MNCOMPASS), the 2020 population for the City of Burnsville was 64,317, a 6.7-percent increase in population over the 2010 Census. The figures below depict total population change and total household change. The City of Burnsville's population growth is relatively moderate. The rate of household growth is slightly lower than population growth, indicating that the City of Burnsville has been adding smaller households on average. Housing and Commercial Needs Assessment, (Stantec 2024).

Figure 18: Total Population Change

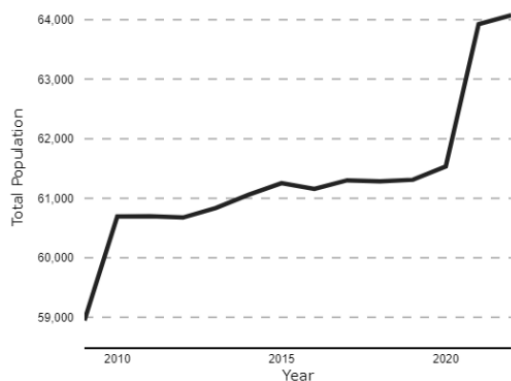
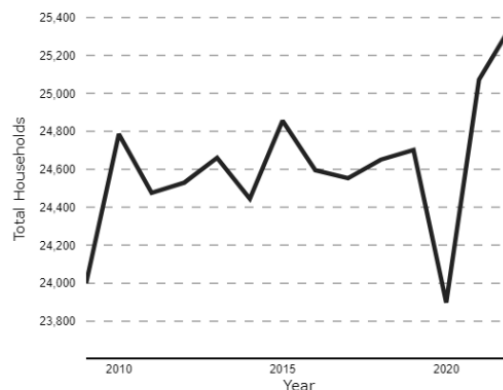


Figure 19: Total Households Change



The City of Burnsville is projected to grow by almost 7,000 additional people and 3,000 households by 2040, resulting in a population of 68,500 and 27,600 households. During this time, Burnsville's role as an employment center is anticipated to grow as well, with over 7,500 jobs added by the year 2040, which will total 41,900 jobs in the community^{vi}.

Figure 20: Burnsville's unemployment is typically, lower than the region

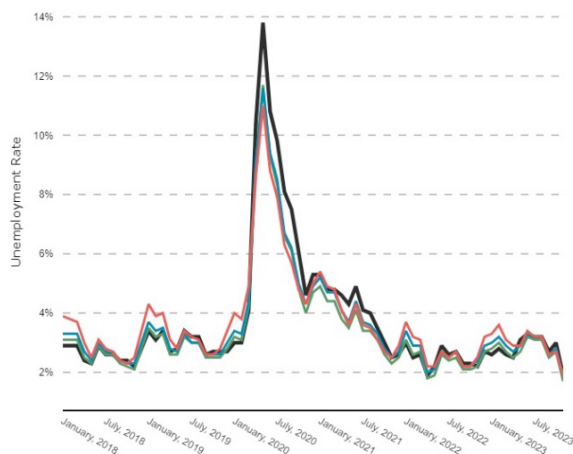
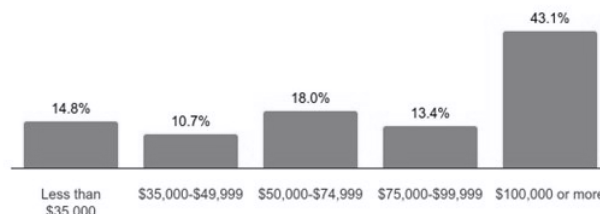


Figure 21: Burnsville Households by Income 2022



POPULATION & DEMOGRAPHICS, CONTINUED...

According to 2022 Census Data^{vii} the median household income in the City of Burnsville was \$85,801 which is slightly higher than the State of Minnesota median income of \$84,313 and lower than the Dakota County median income of \$101,360.

The Census also identifies 8.0 percent of the City of Burnsville’s population as below the poverty threshold which is significantly higher than the 5.6 percent of the Dakota County population in poverty. Like the broader Minnesota labor market, unemployment remains low with employment recovering rapidly after the pandemic shutdown. The peak was a bit higher and the recovery a bit slower in Burnsville given the higher proportion of workers in retail jobs. (Stantec, 2024)

Wages are low in retail trade and often are insufficient relative to housing costs. The abundance of low-wage service sector jobs can put stress on the lower end of the housing market, especially as rent and home values continue to outpace wage growth. Despite job growth in the lower wage sectors, there has been a decline in those who work in those industries who also live in Burnsville. Median household incomes have not grown as quickly as housing costs, especially in the rental market.

The consequence is that the ratio of median incomes to median rents is one of the highest in the metro, with rental prices far outpacing income gains. Likewise, more than 50% of Burnsville renters are housing cost-burdened, and the proportion of households who are rent burdened has grown at a faster rate than comparison geographies (House and Commercial Needs Assessment).

The US Census^{viii} identifies 805 vacant housing units in the City of Burnsville, or 3.08 percent. The City of Burnsville’s average household size of owner-occupied units was identified as 2.6. The housing stock in the City of Burnsville is aging as the majority of the community was developed prior to 2000 according to the US Census table below.

Figure 22: City of Burnsville Housing Stock^{ix}

YEAR BUILT	CONSTRUCTION TYPE	HOUSES BUILT	PERCENT OF TOTAL HOUSES
2000 or later	Modern	2,737	10.46%
1980-2000	Modern	10,851	41.47%
1950-1980	Conventional/Legacy	11,991	45.83%
1950 or earlier	Legacy	585	2.24%

The City of Burnsville's residential neighborhoods closer to the Twin Cities were mostly developed between 1960 and 1980, with 1976 being the median year for single-family homes.

The majority of condominiums were built in the 1970s, whereas townhomes followed as a housing type, with the median year built 1990. Commercial and retail developments have largely followed residential development. The heart of the city is a major site of redevelopment.

Single-family homes built after 2000 are largely scattered throughout the southern portion of the City of Burnsville and on significantly larger lots – a product of the lack of developable land for new subdivisions.

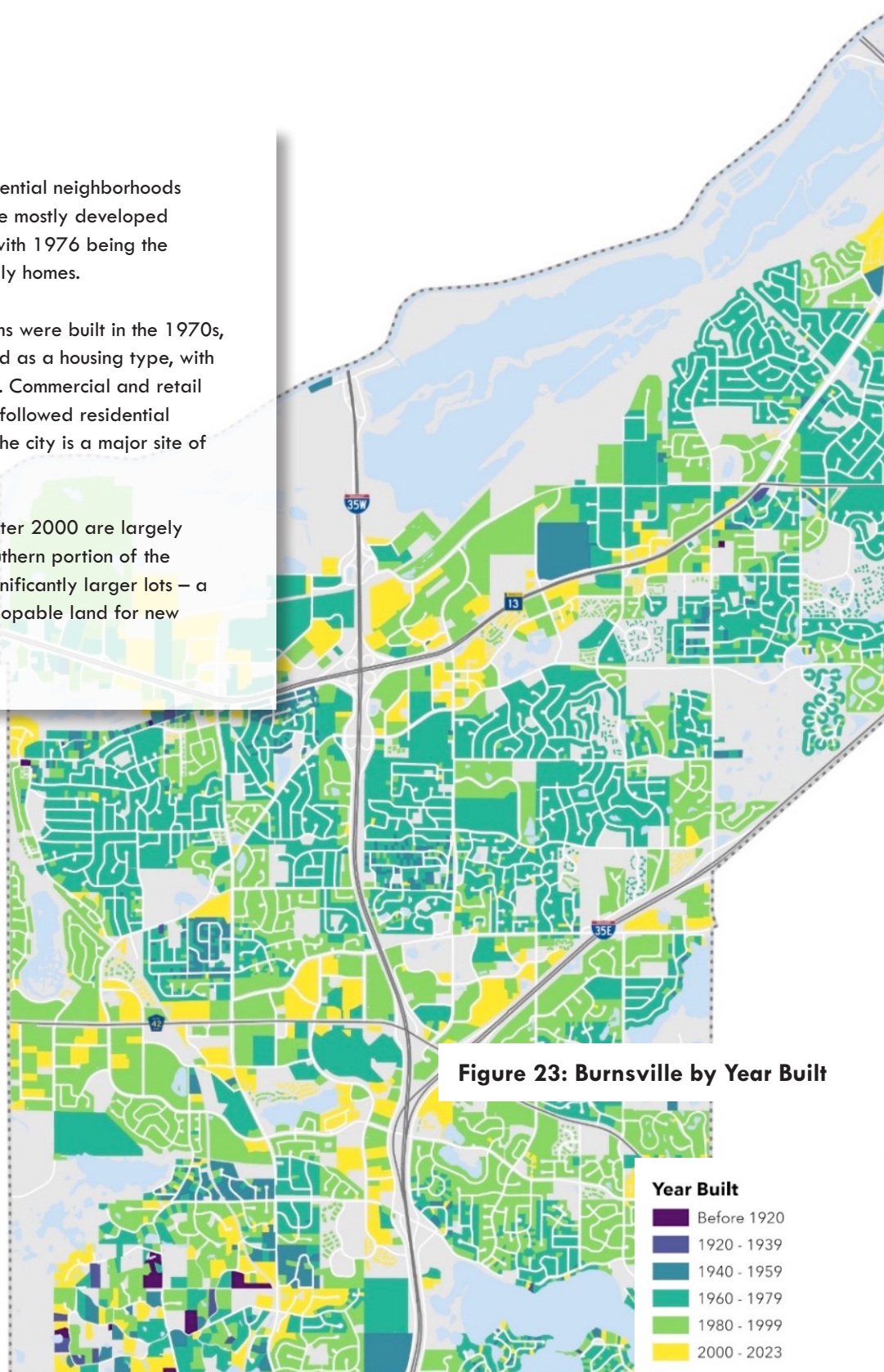


Figure 23: Burnsville by Year Built

POPULATION & DEMOGRAPHICS, CONTINUED...

As the development of land for single-family housing is nearly exhausted, the City of Burnsville has shifted towards infill redevelopment, with new housing units largely consisting of multi-family buildings.

The City of Burnsville is an aging community in both infrastructure and population. Figure 24 shows the population by age category. Twenty one percent of the population is 17 years of age or younger.

On the other side of the spectrum, 17 percent of the population is 65 years of age or older.

Figure 25 shows that there are 2,904 people 65 or older living alone which equates to 11.5 percent of the population. Just over one quarter of the households in the City of Burnsville have an occupancy that is 65 years of age or older. Figure 26 shows that 12 percent of the overall population of the City of Burnsville has a disability.

Figure 24: City of Burnsville Population by Age 2018-2022*

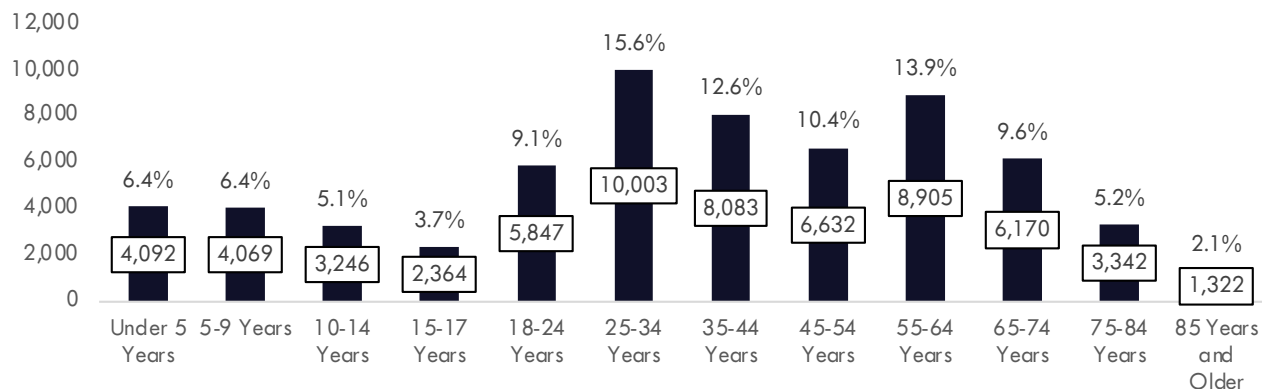


Figure 25: City of Burnsville Household Demographics*

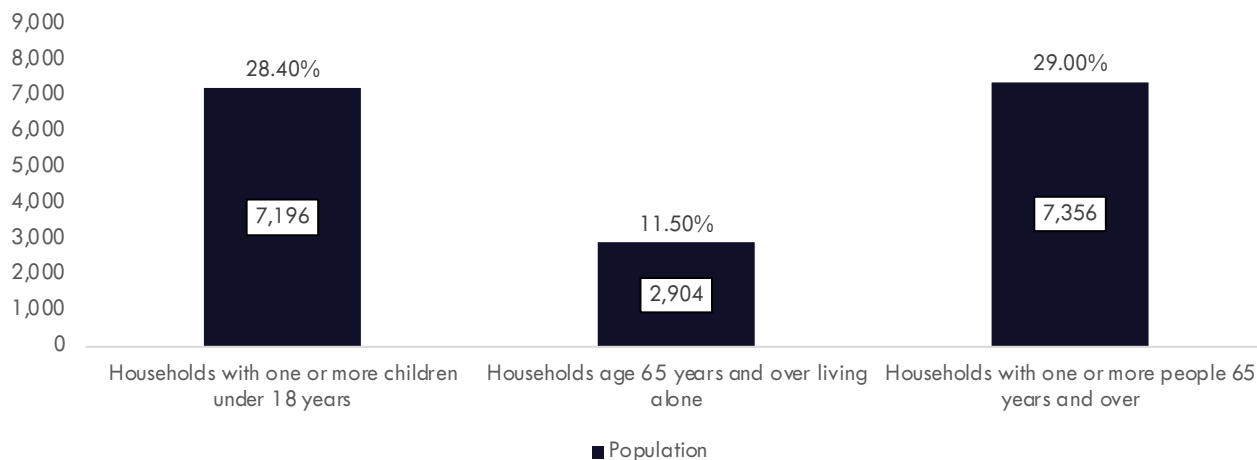


Figure 26: City of Burnsville Population with Disabilities*

DISABILITY	POPULATION	PERCENT OF POPULATION
Population with a disability	7,647	12%

The City of Burnsville continues to be a diverse community from many perspectives including age, race and ethnicity. Figure 27 shows the race and ethnicity breakdown within the City of Burnsville. Figure 28 shows population by spoken languages. Twenty-one percent of the population speaks a language other than English.

Figure 27: City of Burnsville's Population by Race and Ethnicity

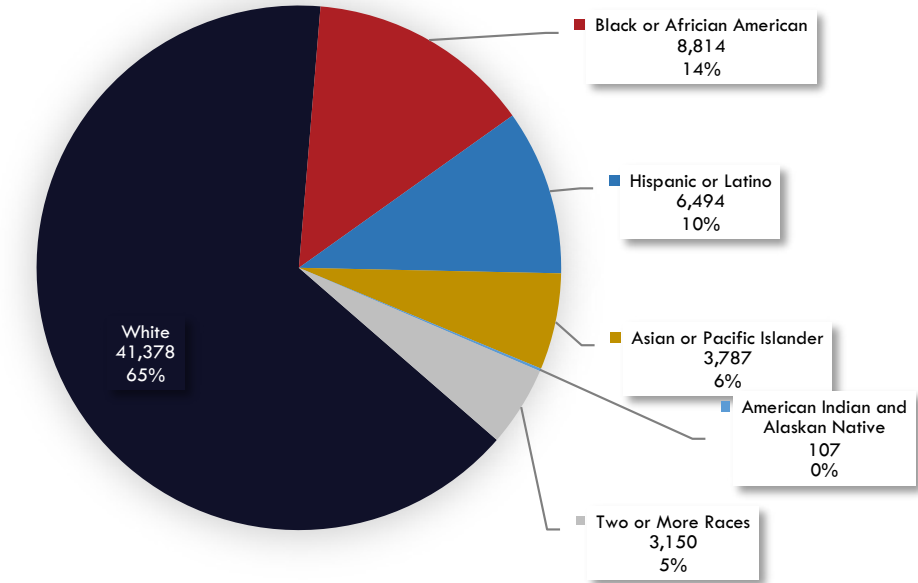
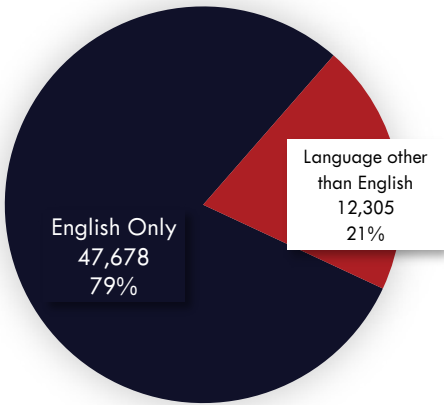


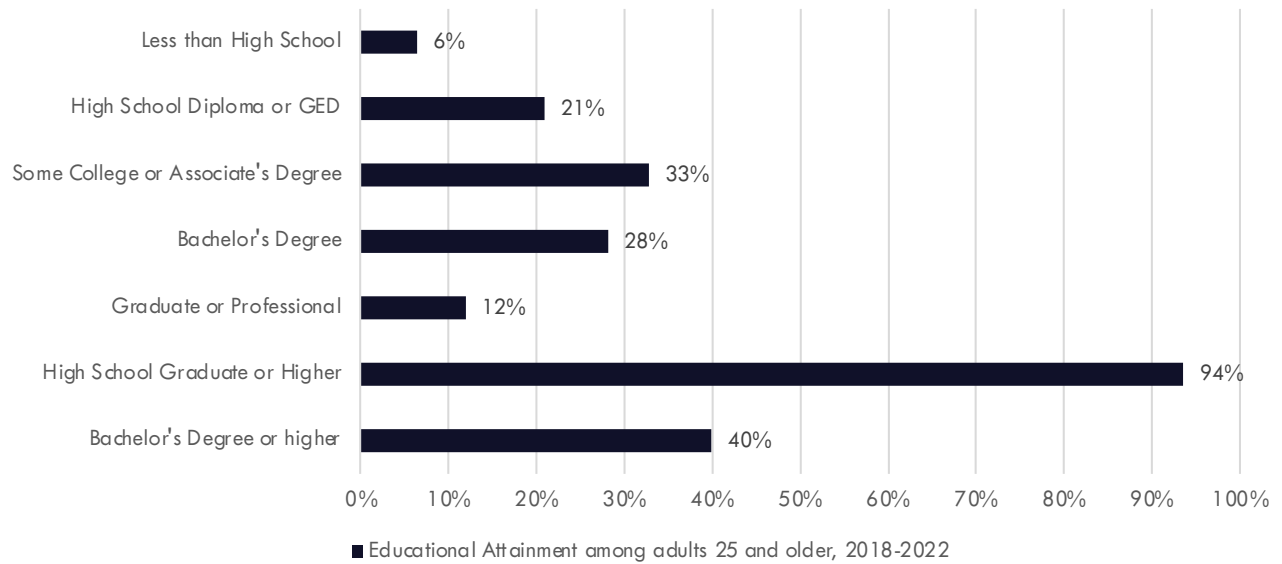
Figure 28: City of Burnsville's Population by Languages Spoken*



POPULATION & DEMOGRAPHICS, CONTINUED...

In terms of education, from 2018 to 2022, six percent of adults aged 25 and older in the City of Burnsville had less than a high school education, while 94 percent attained a high school diploma or higher, as shown in Figure 29.

Figure 29: City of Burnsville Educational Attainment 2018-2022*



COMMUNITY RISK ASSESSMENT & RISK LEVELS

There are two primary types of risk associated with all hazard fire service planning, potential risk and historical or experiential risk.

Potential risk is evaluated by reviewing the response area for target hazards, potential incidents and demographics. Historical risk or experiential risk is evaluated by analyzing the data showing what calls for service the fire department has experienced over a period of time. Once the two types of risks are analyzed it may be easier for policymakers to determine the desired level of service to provide to the community. The risk assessment is presented throughout the document.

Community risk levels are typically established through an overall profile of the community based on the unique mixture of demographics, socioeconomic factors, occupancy risk, fire management zones, and the level of services currently provided. Risks that can be considered when evaluating community risk for the Burnsville Fire Department include:

CAUSAL FACTORS & AT-RISK POPULATIONS:

- Social factors and cultural influences
- Economic factors
- Environmental elements

Risk factors in specific populations:

- Children (age 5 & under)
- Older adults (age 65 & older)
- People with disabilities
- People living in poverty
- Populations that speak little or no English

Urban fire vulnerability risk:

- Human impacts (firefighter and civilian injuries and deaths)
- Economic impacts (property loss, both direct and indirect effects)
- Psychological impact (public confidence)
- Functional impact (continuity of operations)

COMMUNITY RISK ASSESSMENT & RISK LEVELS

Figure 30: NFPA 1710 Community Risk Assessment

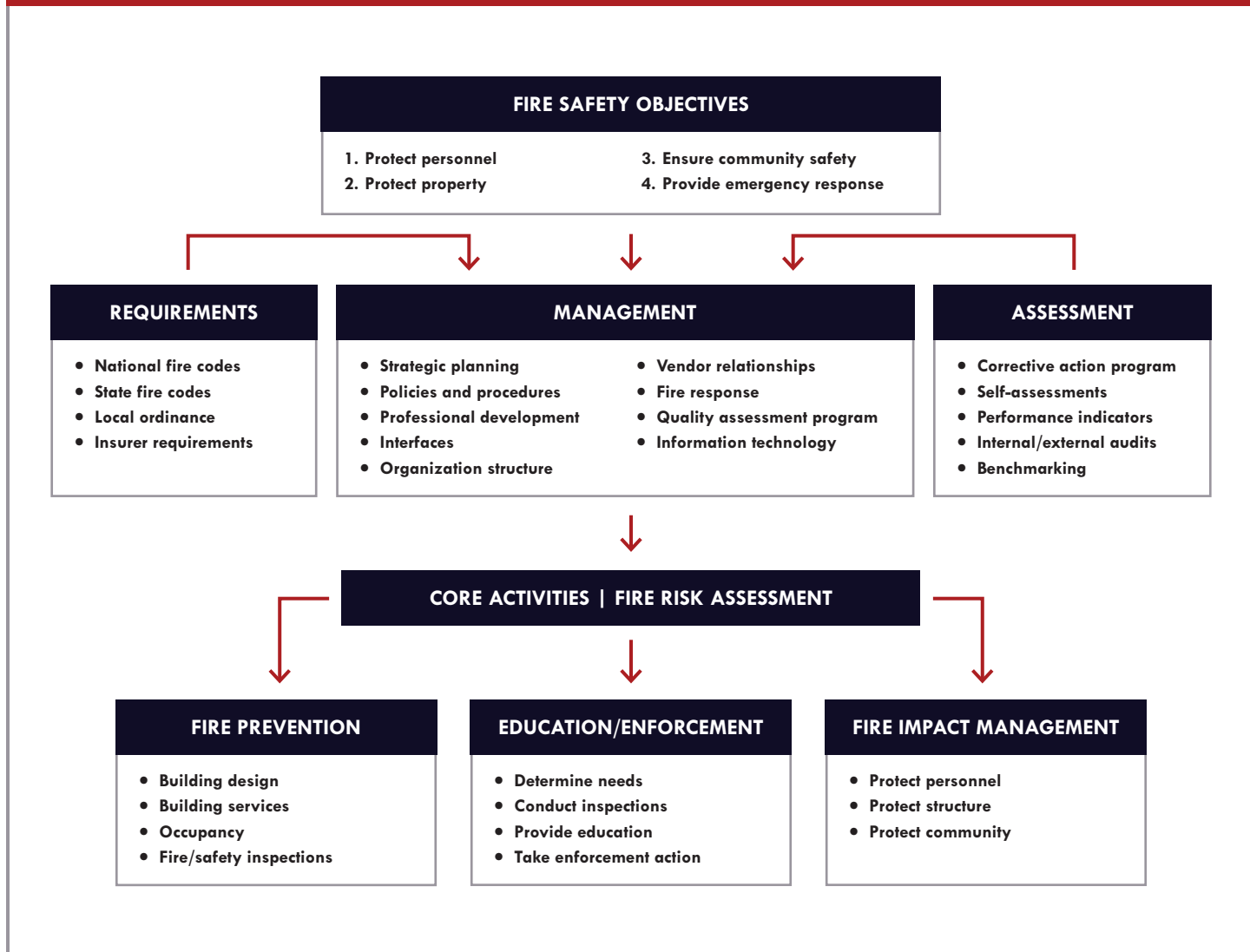


Figure 31: Community Hazards/Risk Examples^{xi}

PROPERTY	LIFE	CRITICAL INFRASTRUCTURE
Construction Date (e.g., pre-1930)	Population Demographics (e.g., age)	Agriculture and Food
Building Materials	Community Socio-Economic Status/ Income by Type of Household (Census Data)	Water
Sprinklers Present	Population Distribution	Public Health Resources
Building Type (High-Rise, Two-Story, etc.)	Population Density (pop/sq. mi.)	Emergency Services

POTENTIAL RISK

DISASTER POTENTIAL

Preparing for incidents is crucial as a first step in preventing disasters. If a disaster cannot be prevented, mitigating its severity becomes a key aspect of disaster preparedness. In such cases, being ready to respond effectively is essential to minimizing loss of life and property.

Preparation begins by using the Center for Public Safety Excellence (CPSE) and Vision 2020 National Strategies for Fire Loss Prevention model to assess disaster potential. The model is shown in the Figure below. The model starts by assessing the probability and consequence of each disaster. Each disaster is then categorized from low to high/extreme risk. The following sections of this document will then speak to the distribution and concentration of these types of incidents. Using the disaster potential and the historical experience within the community, gaps in service can be identified and strategies developed to close the service gaps.

Figure 32: Risk Matrix^{xiii}

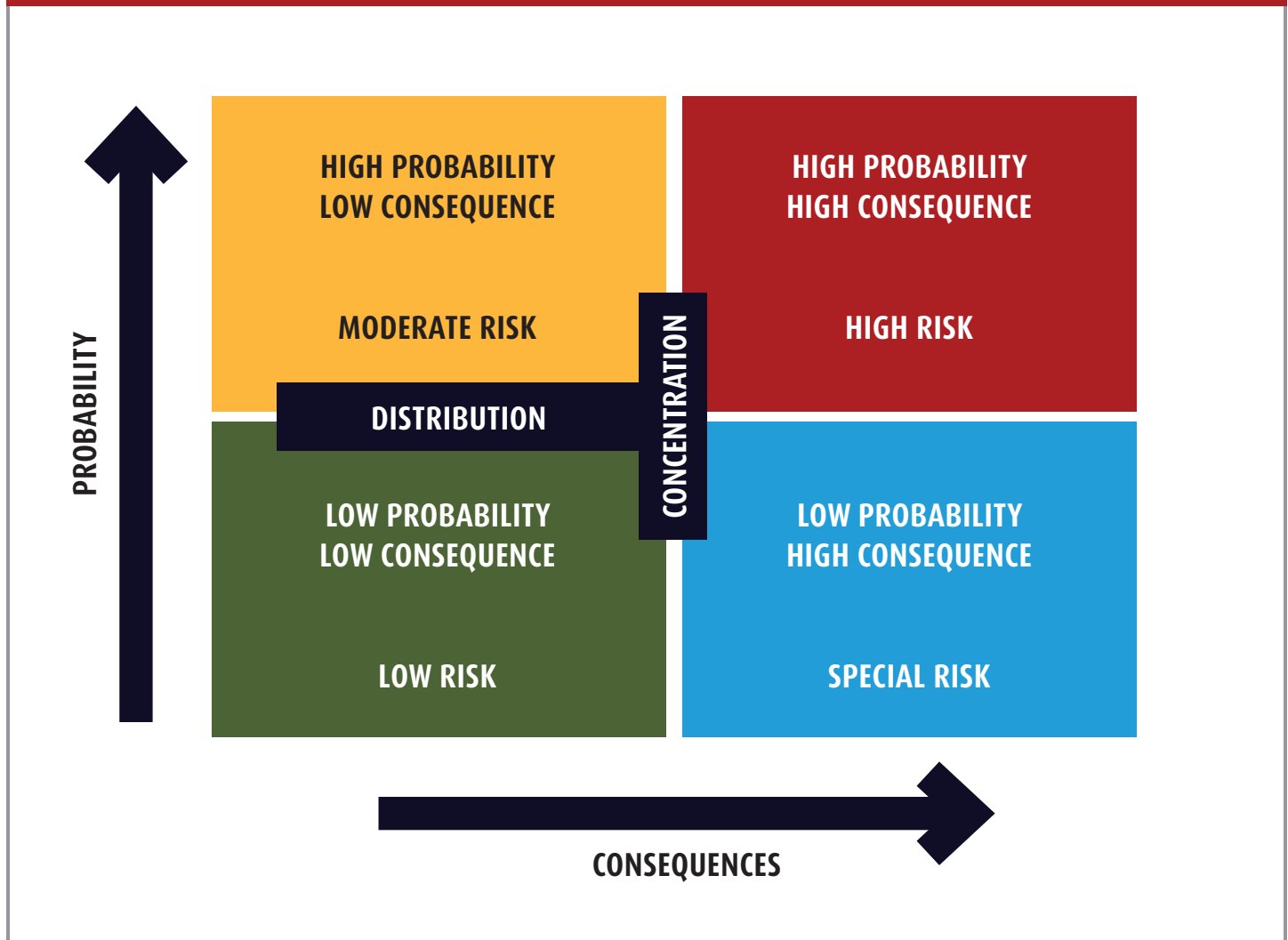


Figure 33: Disaster Potential Matrix^{xiii}

DISASTER	LIKELIHOOD	VULNERABILITY	LEVEL OF RISK
Structure Fire – Single Family	5	2	High Risk
Structure Fire – Multi-Family	5	4	Extreme Risk
Structure Fire – Commercial	3	3	High Risk
Severe Weather	5	3	Extreme Risk
Severe Winter Storm	5	2	High Risk
Blizzard	4	4	Extreme Risk
Heavy Snowstorm	4	3	High Risk
Ice Storm	4	4	Extreme Risk
Thunderstorm	5	2	High Risk
Flooding	4	3	High Risk
Earthquake	1	5	High Risk
Man-Made Disaster/Terrorism	3	4	Extreme Risk
Active Assailant	3	4	High Risk
Pandemic	2	5	Extreme Risk
Widespread Illness	4	3	High Risk
Small Hazmat Spill	3	2	Moderate Risk
Train Derailment	2	3	High Risk
Commercial Aircraft Crash	2	2	Moderate Risk
Single Engine Aircraft Crash	2	1	Low Risk

Likelihood of Disaster Occurring

- 5 = Almost certain** (expected to occur, recorded incidents, likely to re-occur)
- 4 = Likely** (probably will occur, recorded incidents, reason/means to occur)
- 3 = Possible** (should occur, infrequent/random events, some reason/means to occur)
- 2 = Unlikely** (could occur, no recorded incidents, little reason/means to occur)
- 1 = Rare** (may only occur in exceptional circumstances)

Vulnerability – Susceptibility to Suffer Loss or Harm from Disaster

- 5 = Catastrophic** (large number of severe injuries/fatalities, general long-term displacement of residents, extensive personal support)
- 4 = Major** (extensive injuries, large number displaced for more than 24 hours, fatalities, external resources for personal support, community only partially functioning, some environmental impact, significant financial loss)
- 3 = Moderate** (medical treatment required, no fatalities, localized displacement less than 24 hours, local personal support, local damage, small environmental impact, significant financial loss)
- 2 = Minor** (minor injuries, some displacement less than 24 hours, some personal support, some damage/disruption, small environment impact with no lasting effects, some financial loss)
- 1 = Insignificant** (no injuries, small number displaced for short duration, no personal support, inconsequential damage, no disruption to community, no environmental impact, no financial loss)

PROPERTY RISK

The Burnsville Fire Department is charged with not only protecting life but also property. The City of Burnsville has a significant amount of property value with taxable property assets of around \$7 billion dollars. The taxable property does not encompass all the property value within the City of Burnsville as it does not account for non-taxable property or the contents within the property that can be lost as part of a disaster or fire.

There are many tertiary losses beyond property loss, so the loss of property and contents due to a disaster such as a fire can have a significant financial impact on citizens.

INFRASTRUCTURE

The City of Burnsville is home to significant public and private infrastructure that both the city and the region rely on daily.

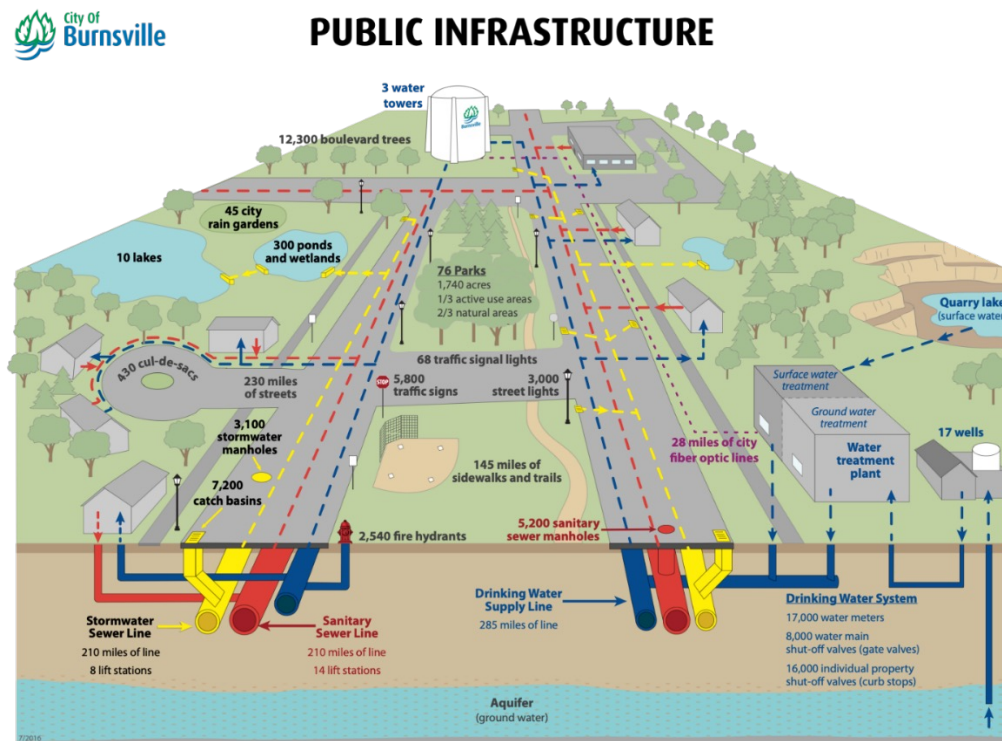
The City of Burnsville has a power plant that produces electricity using natural gas-powered generators. A large propane storage facility is also located in the City of Burnsville which is used to augment the high demand periods for natural gas. There are many gas lines that are underground that not only provide natural gas to the community but also transfer lines that transport many types of liquid and gas products between refineries and distribution points.

The City of Burnsville owns and maintains a robust potable water system, sanitary sewer system that feeds into the regional system, and a storm water system.

There are also many miles of roadway that range from interstate highways to local streets. These roadways contain hundreds of thousands of vehicles per day. Many of these vehicles transport not only people but also hazardous materials.

A very robust park system is maintained within the City of Burnsville with 76 city parks and two regional park areas. Some parks have very natural areas that are frequently used but difficult to access by emergency vehicles.

Figure 36: Public Infrastructure Depiction



COMMUNITY RISK ASSESSMENT & RISK LEVELS

An active regional railroad line runs along the river bottoms which has multiple trains per day traversing through the City of Burnsville, many of which carry hazardous materials. While the Minneapolis-St. Paul International Airport (MSP) is not within the City of Burnsville, it is only a few miles from the border, which puts the City of Burnsville in the departure and arrival path for the very active runway 17/35. Runway 17/35 refers to the same runway; the direction of departure and landing depends on the compass heading.

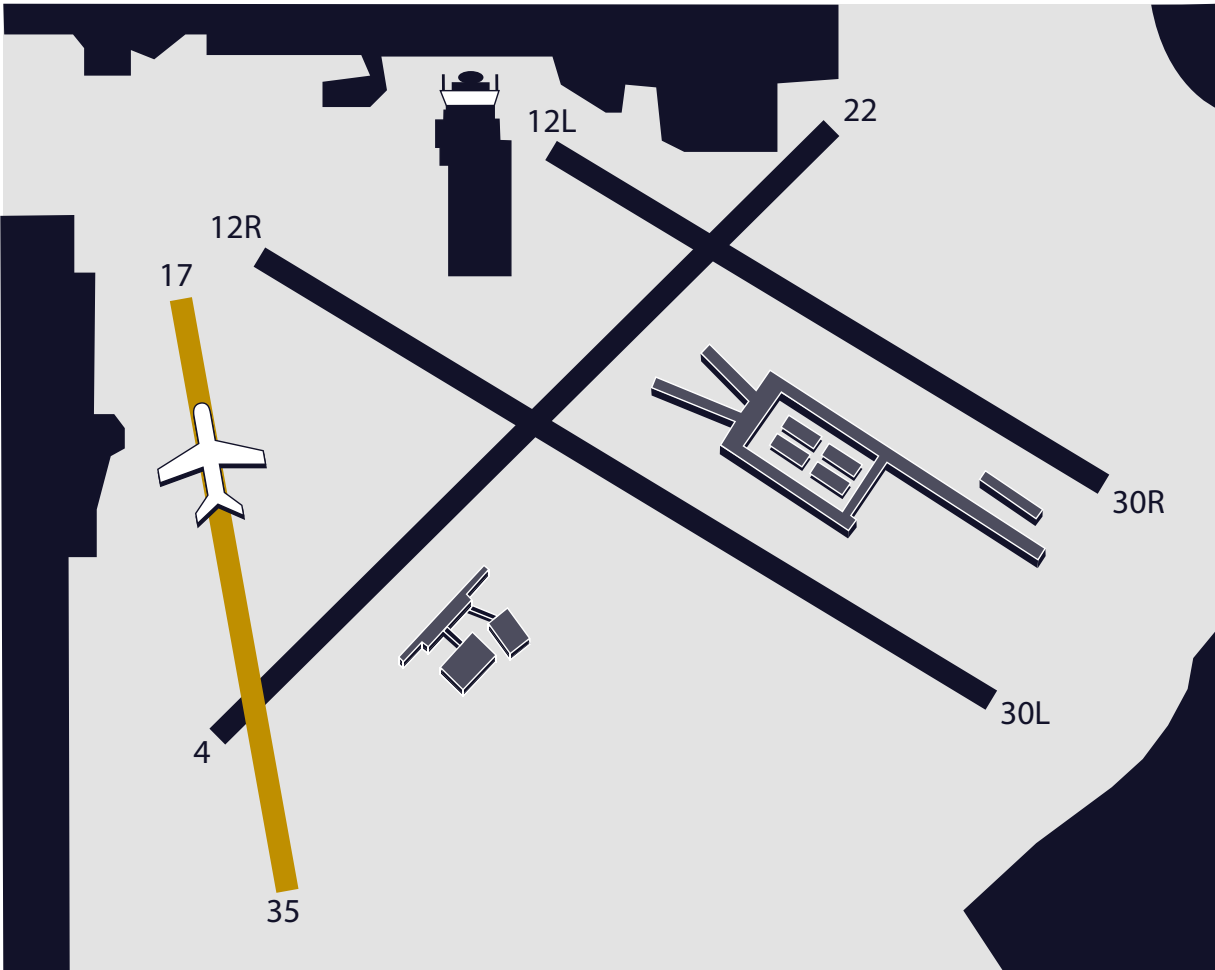
Runway 17/35 is used by commercial airliners departing MSP to and arriving from the south, and if parallel runways are under construction or unusual weather conditions are present. These flights come over the northeastern corner of the City of Burnsville and turn along the river to follow the northern portion of the city. The number of arrivals on runway 35 increased significantly between 2023 and 2024. This increase is due to changes implemented by the Federal Aviation Administration (FAA).

Figure 37: Runway 17 Departures

RUNWAY 17	DEPARTURES
2023	56,950
2024	64,657

Figure 38: Runway 35 Arrivals

RUNWAY 35	ARRIVALS
2023	1,729
2024	24,668



HAZMAT

The 43 identified hazmat sites are also a significant target hazard. These hazardous material sites have the potential of creating environments that are hazardous to occupants, responders and the environment. Not only can the environment be hazardous, but it can also be explosive.

Each hazard is different given the type, amount and arrangement of the hazardous materials contained on the site.

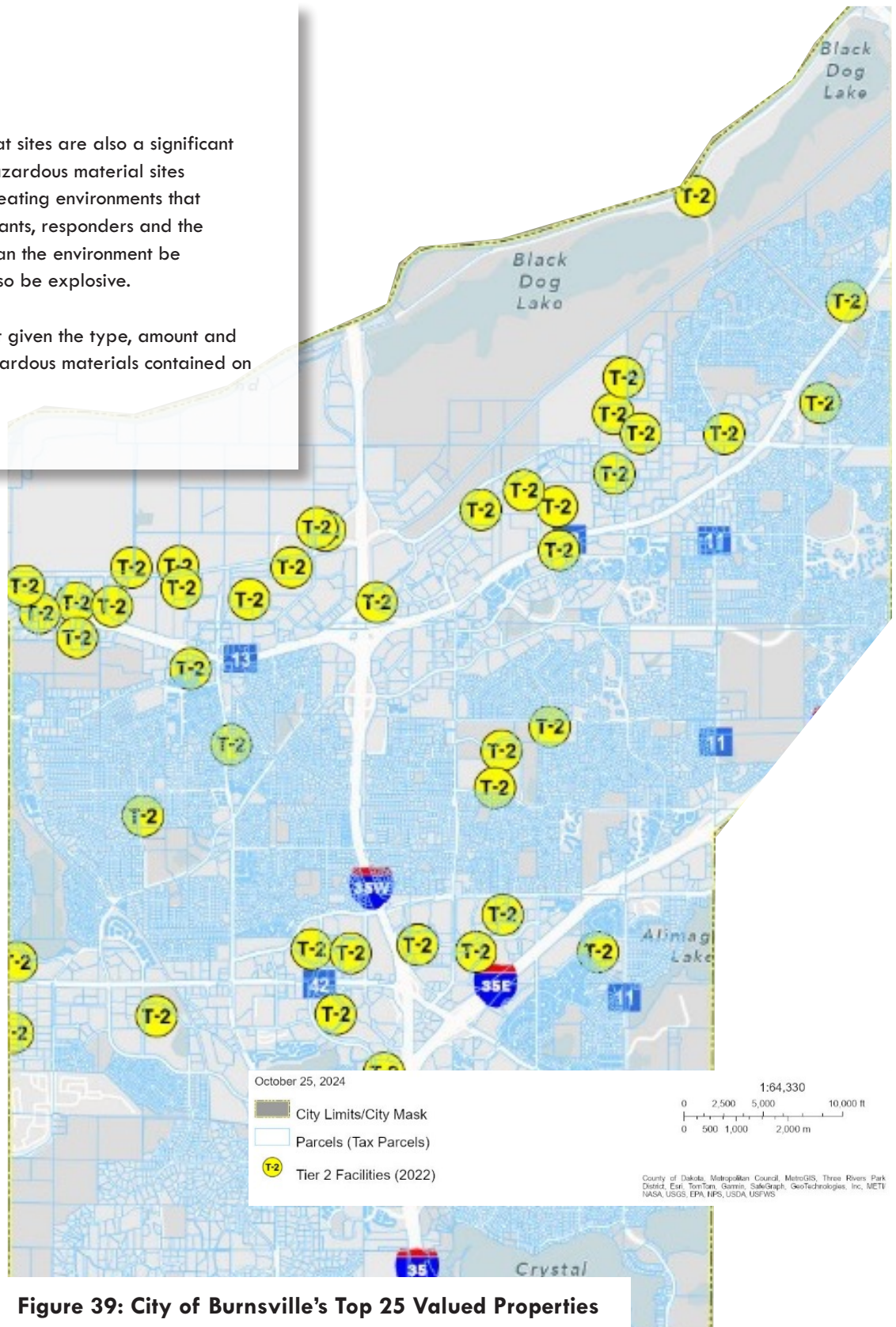
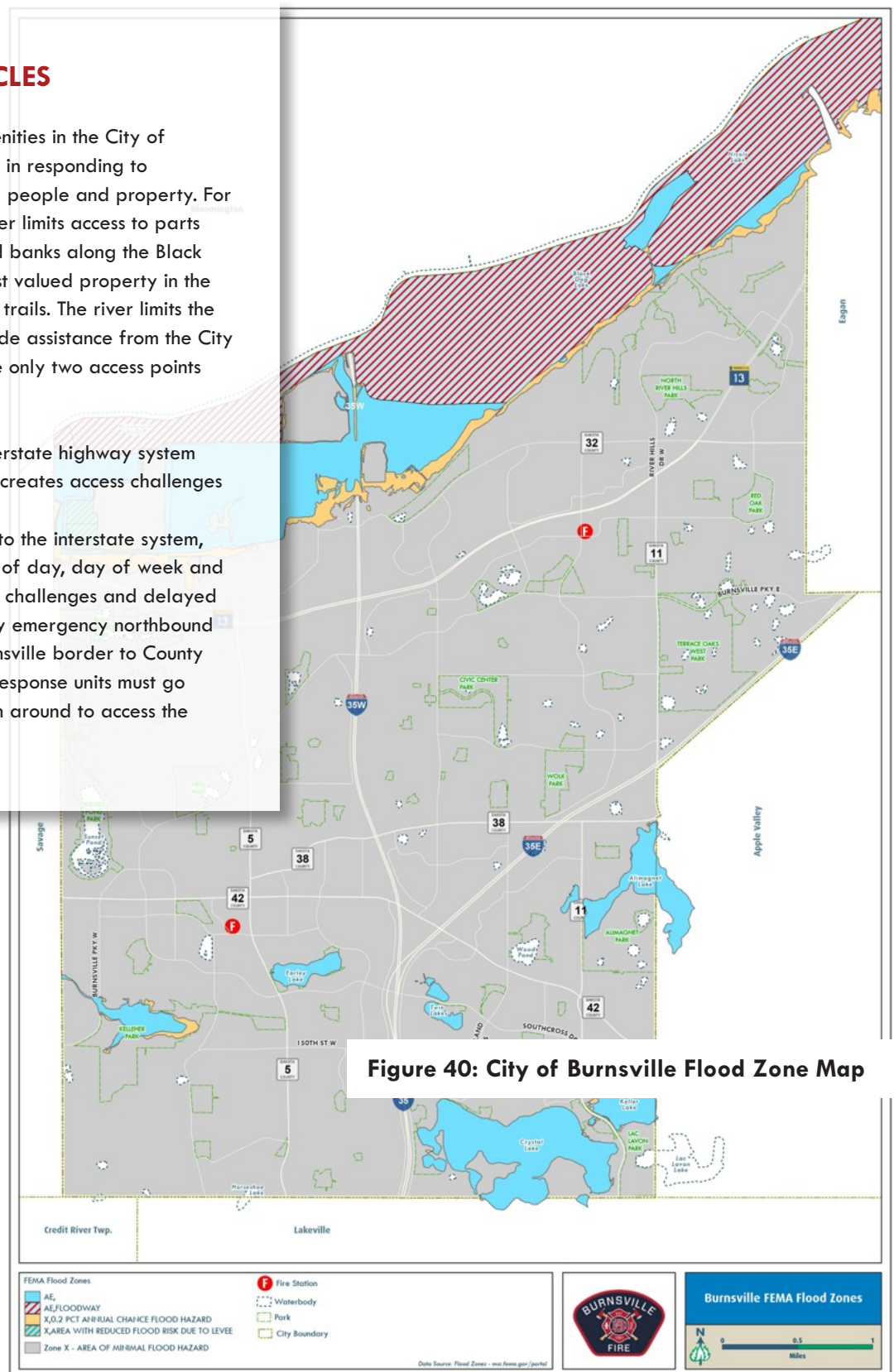


Figure 39: City of Burnsville's Top 25 Valued Properties

RESPONSE OBSTACLES

Many of the enjoyable amenities in the City of Burnsville become obstacles in responding to emergencies and protecting people and property. For example, the Minnesota River limits access to parts of the City of Burnsville and banks along the Black Dog Power Plant, the highest valued property in the city. It also hosts pedestrian trails. The river limits the ability to receive and provide assistance from the City of Bloomington as there are only two access points between the two cities.

The arrangement of the interstate highway system within the City of Burnsville creates access challenges to reaching emergencies. Given traffic pattern, load to the interstate system, incidents based on the time of day, day of week and weather pattern can create challenges and delayed responses. For example, any emergency northbound on I35 from the City of Burnsville border to County Road 42 is challenging as response units must go to County Road 46 and turn around to access the northbound incident.



RESPONSE OBSTACLES, CONTINUED...

The railroad line running through the City of Burnsville can create challenges and cut off regular routes without notice for many minutes delaying a response. For example, Cliff Road can be an instrumental thoroughfare in reaching incidents based on where the emergency vehicles are responding from; however, it hosts a railroad crossing and since there is no notification of when trains are traversing, Burnsville Fire Department responders are not aware of the train until they get to the crossing.

The City of Burnsville's very robust parks and recreation system also creates response challenges. There are many parks and areas of the city that are inaccessible by emergency vehicles such as Terrace Oaks Park, Murphy Hanrahan, and the river bottom area. In these instances, utility vehicles need to be requested to respond to reach the incident.

The City of Burnsville also experiences flooding regularly. Black Dog Road is seasonally flooded on a regular basis. This flooding limits access to the Black Dog Power Plant to one entrance. There have been occurrences where the alternate entrance to the power plant has also flooded, placing the power plant on an island. There are also areas of the City of Burnsville that have a potential risk of flooding, but the frequency of the flooding is much lower than the Black Dog area along the river bottoms.

TARGET HAZARDS

The largest life hazard within the City of Burnsville is the multi-family residences. Most of the buildings do not have fire suppression systems, and not all of the alarm systems are monitored by an alarm company. These factors create a situation where occupants may not be aware that a fire or emergency is occurring and are impacted with limited or no time to respond to the emergency.

From anecdotal experience, there is a delayed emergency notification of the Burnsville Fire Department in multi-family dwellings without fire sprinkler systems and monitored alarm systems. This allows the fire or emergency to advance beyond a small incident, leaving the responders choosing between rescuing victims and extinguishing the fire.

Both quantitative data and anecdotal experience have shown that these occupancies are very high risk to both occupants and responders. With over 8,200 multi-family rental units—spread over 306 buildings—and 65 percent of those facilities lacking fire sprinkler systems, the Burnsville Fire Department considers these occupancies very high risk.

HISTORICAL RISK

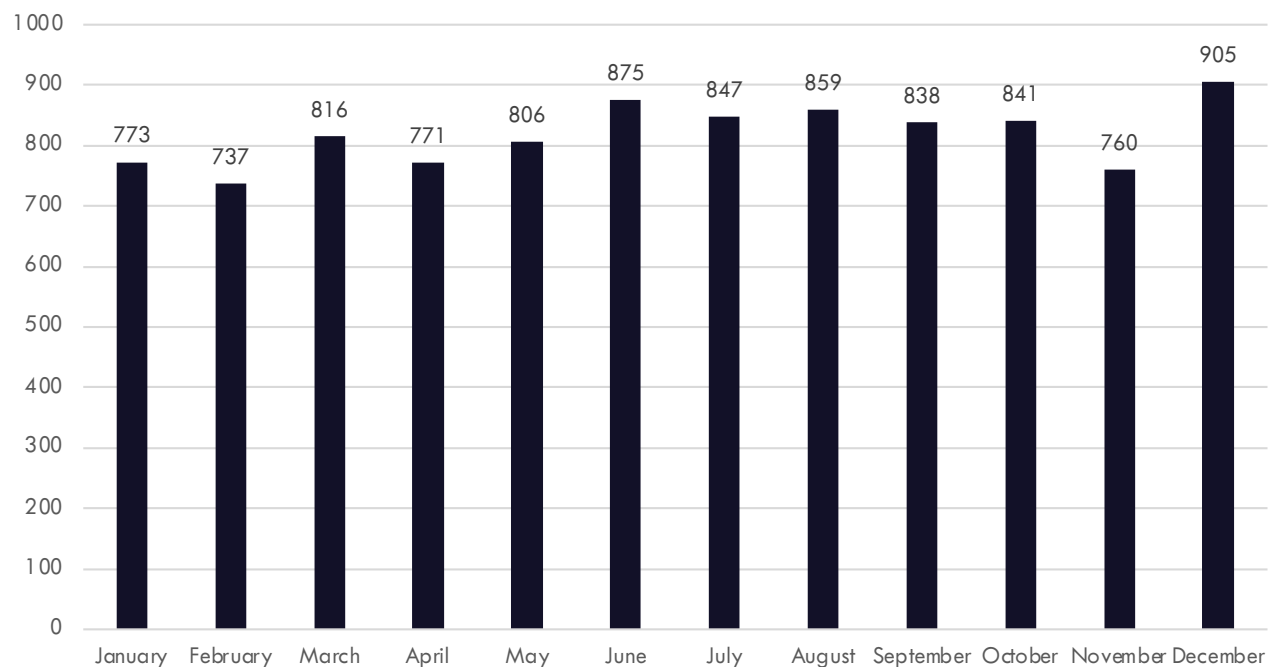
The Burnsville Fire Department responded to 9,828 calls for service in 2024. Of those calls, 5,871 were considered emergent within the City of Burnsville. The Burnsville Fire Department responded to over 87% of those calls (5,152) in 9 minutes or less. Figure 41 shows the breakdown.

There is not a great variation in demand for services across the months of the year. In 2024, December was the highest demand month with 905 calls for service while the month with the least demand for service was February with 737. This variation in demand for service is not significant enough to vary staffing month over month. It is uncommon for fire departments to see significant enough variation in service demand to vary staffing, unless the community has a special seasonal use such as a university.

Figure 41: Response Time – All Calls - emergent only, no mutual aid, cancelled or exposures

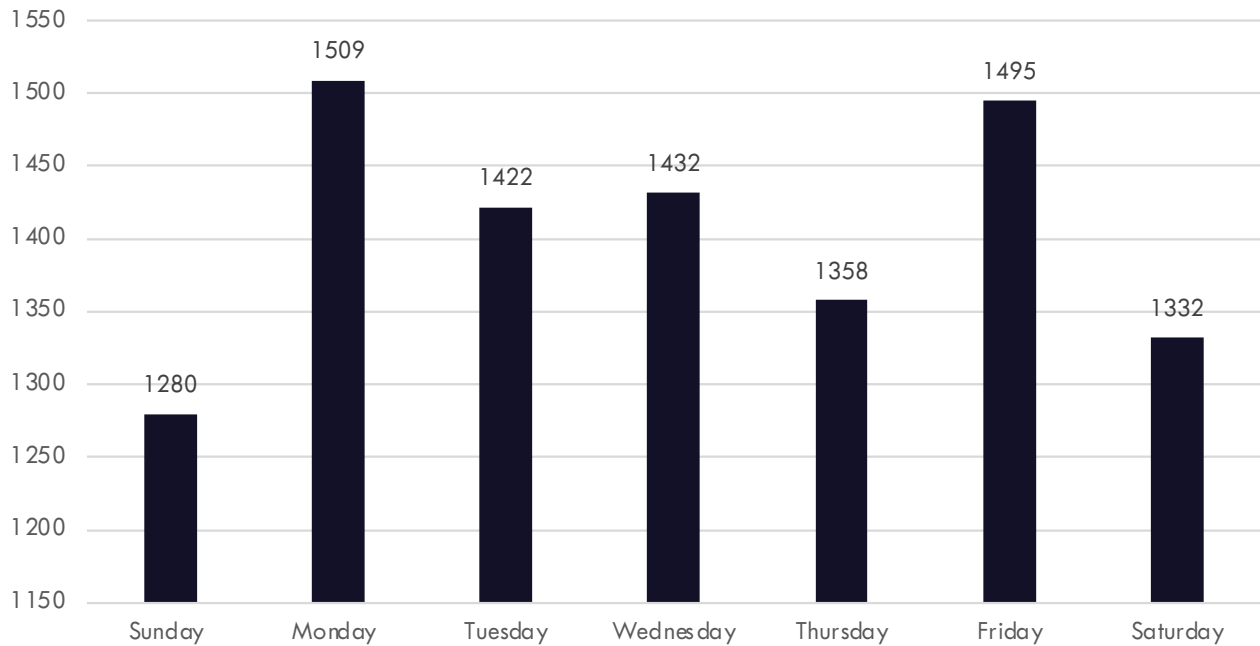
Total Calls – emergent only, no mutual aid, cancelled or exposures			87.75% of Total Calls for service were responded to in 9 minutes or less
RESPONSE TIME	NUMBER OF INCIDENTS	PERCENT OF INCIDENTS	
≤ 2 Minutes	55	0.94%	
2.01-3 Minutes	106	1.81%	
3.01-4 Minutes	329	5.60%	
4.01-5 Minutes	705	12.01%	
5.01-6 Minutes	1043	17.77%	
6.01-7 Minutes	1274	21.70%	
7.01-8 Minutes	1068	18.19%	
8.01 -9 Minutes	572	9.74%	
> 9.01 Minutes	719	12.25%	

Figure 42: Total Incidents by Month for 2024



The Burnsville Fire Department does not experience a great variation in demand for service across days of week. In 2024, the day with the greatest demand for service was Monday with 1,509 calls for service while Sunday had the least demand for service with 1,280. This variation in demand for service is not significant enough to change staffing by day of week, which is consistent with most fire departments of the Burnsville Fire Department's size.

Figure 43: Total Incidents by Day of Week for 2024



The Burnsville Fire Department does experience a variation in demand for service based on the time of day. This variation is normal amongst most fire departments, where the busiest time of day is during the waking hours for the public. Fire departments that experience a different variation for service demand by hour of the day generally have a unique community variation such as a university or entertainment complex.

In 2024, 1:00 p.m. was the busiest hour with 601 calls for service and 4:00 a.m. the least busy, with 183 calls. The Burnsville Fire Department currently varies staffing to accommodate the variation in the demand for service by staffing a third ambulance 08:00-20:00 (8:00 a.m. to 8 p.m.) seven days a week.

COMMUNITY RISK ASSESSMENT & RISK LEVELS

When combining service demand by day of the week and hour of day, the majority of demand for service is between 8:00 a.m. to 8:00 p.m. (0800-2000), every day of the week.

Figure 44: Total Incidents by Hour for 2024

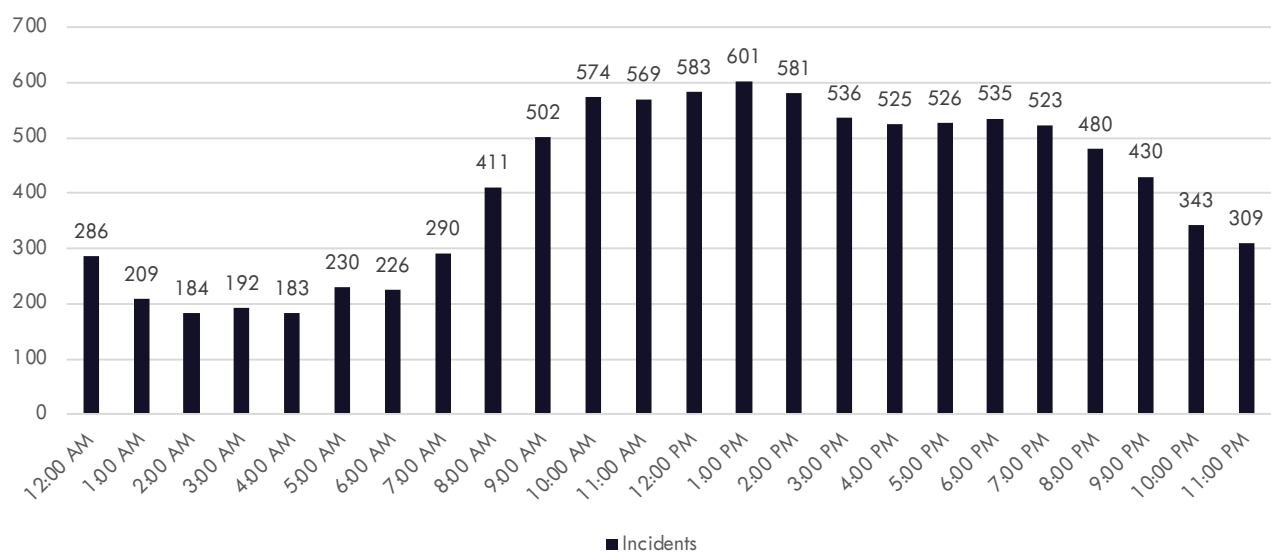


Figure 45: Total Incidents by Day of Week and Hour of Day for 2024

Sun	54	44	39	28	26	44	33	39	53	54	63	64	70	59	61	57	78	66	67	71	63	70	43	34
Mon	50	30	23	29	33	36	38	47	54	81	93	85	90	97	94	91	71	83	68	84	69	60	48	55
Tues	30	21	13	22	26	41	39	41	64	84	91	84	86	90	107	77	78	73	78	76	69	47	44	41
Wed	25	31	21	32	25	21	37	42	60	76	80	90	78	105	89	82	72	72	89	69	68	66	60	42
Thurs	37	23	29	18	23	33	32	38	65	67	82	83	83	87	76	80	75	72	77	64	75	58	44	37
Fri	46	29	34	35	27	29	28	45	59	85	102	93	110	89	74	81	80	76	74	77	68	58	43	53
Sat	44	31	25	28	23	26	19	38	56	55	63	70	66	74	80	68	71	84	82	82	68	71	61	47
	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300

Most calls for service were at residential locations with over two-thirds between single family homes and multi-family homes. Another property use category the Burnsville Fire Department responded to frequently was health care facilities with the majority being at clinics and nursing homes.

Figure 46: 10 Year Total Incidents Breakdown Comparison by Property Use Category

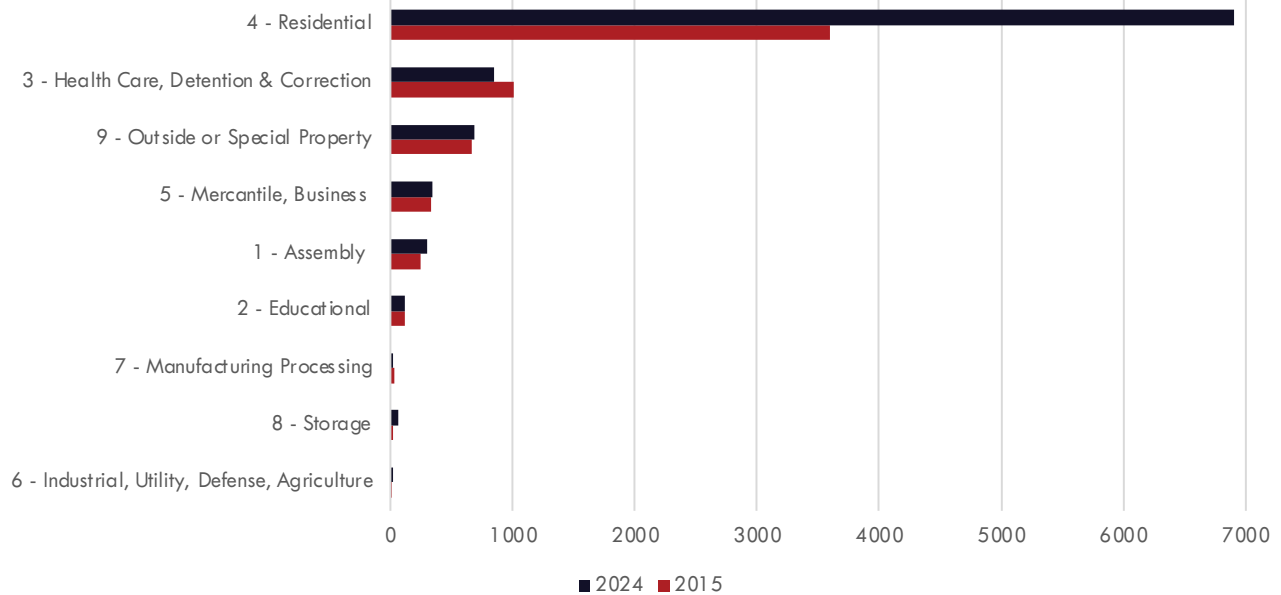


Figure 47: 10 Year Residential Breakdown Comparison by Property Use Category

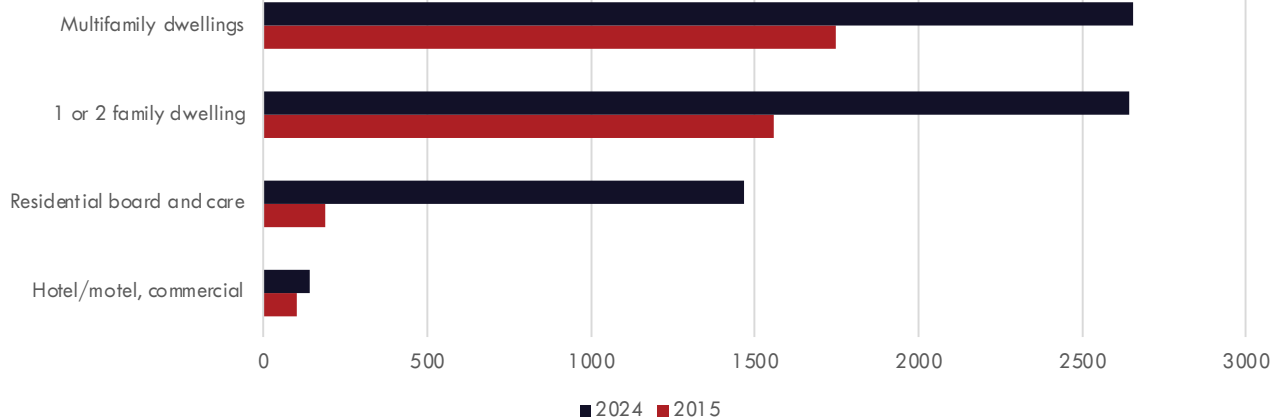


Figure 48: 10 Year Trend Total Incidents - Residential*

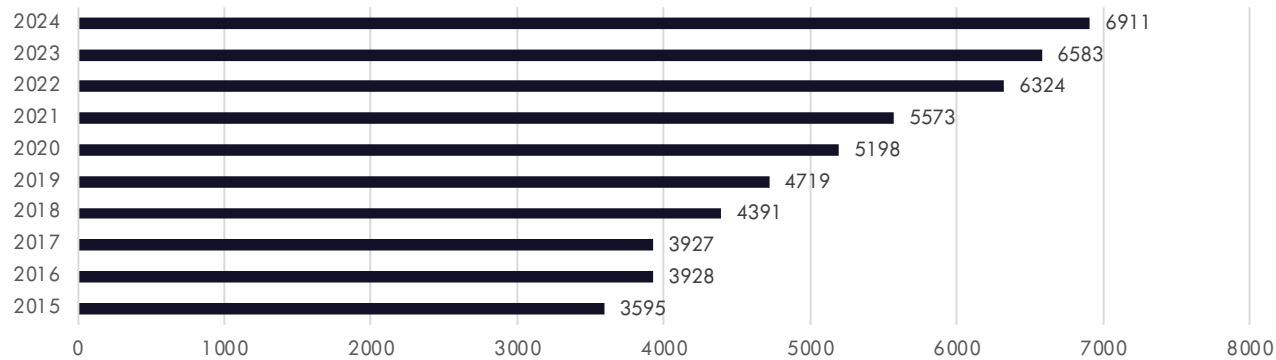
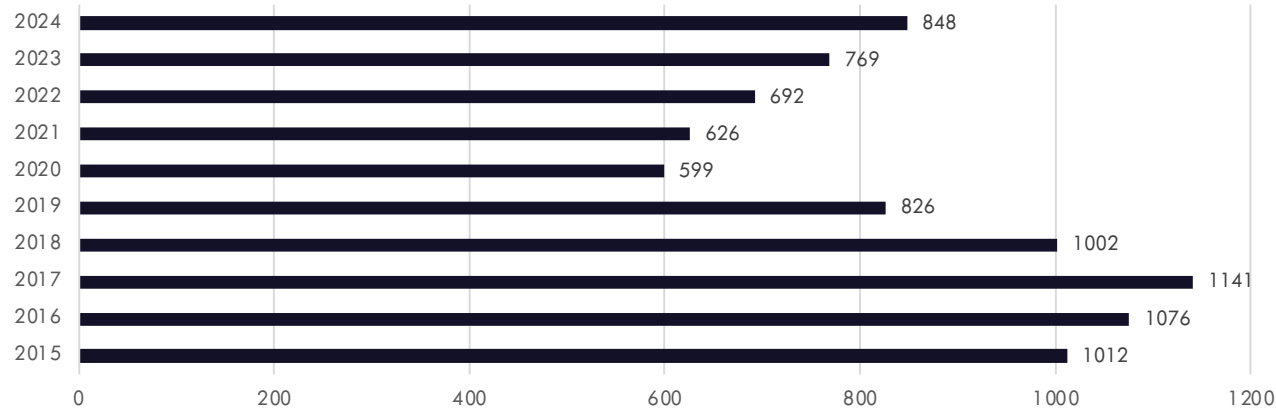


Figure 49: 10 Year Trend Total Incidents – Health Care, Detention, and Correction



*2019 Standard of Cover identified reporting in certain fields needed to be more accurate. Reporting was changed in 2020 to meet the identified deficiency.

Figure 50: 10 Year Trend Total Incidents – Outside or Special Property

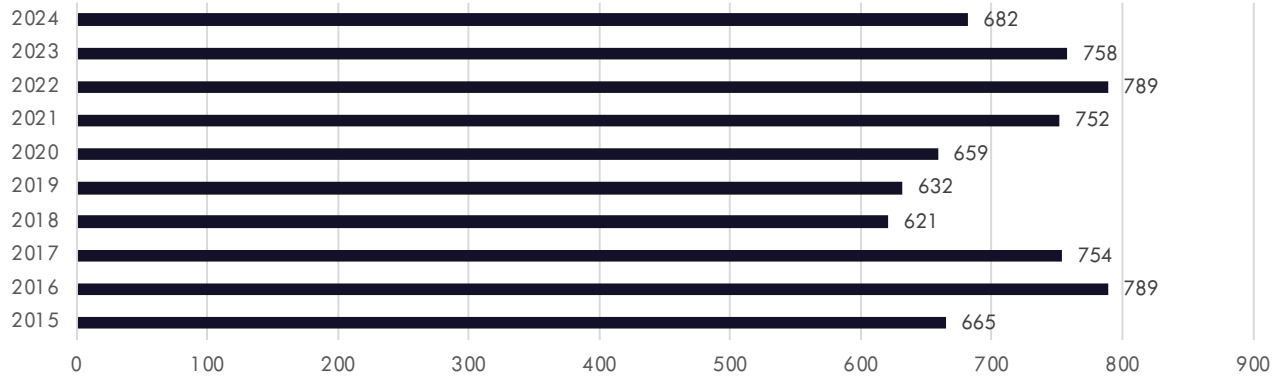


Figure 51: 10 Year Trend Total Incidents – Mercantile, Business

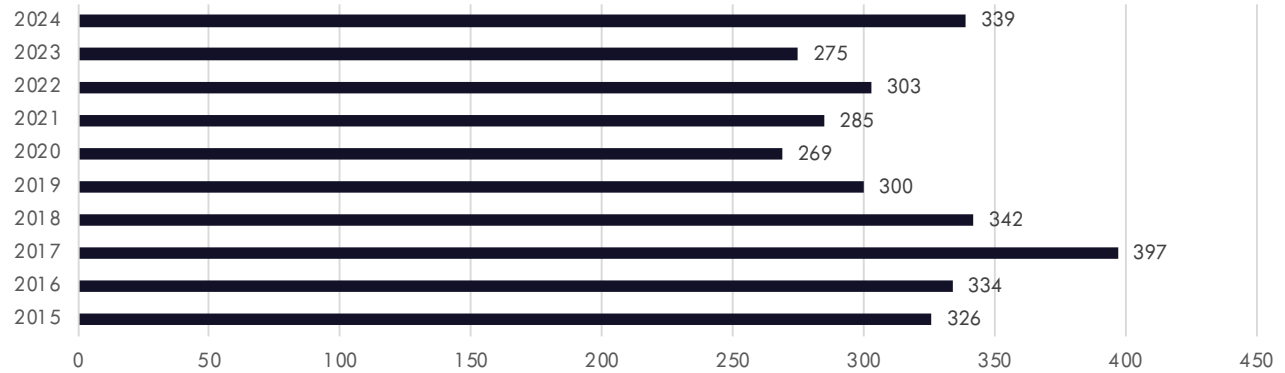


Figure 52: Total Incidents Residential Property Use Breakdown 2024

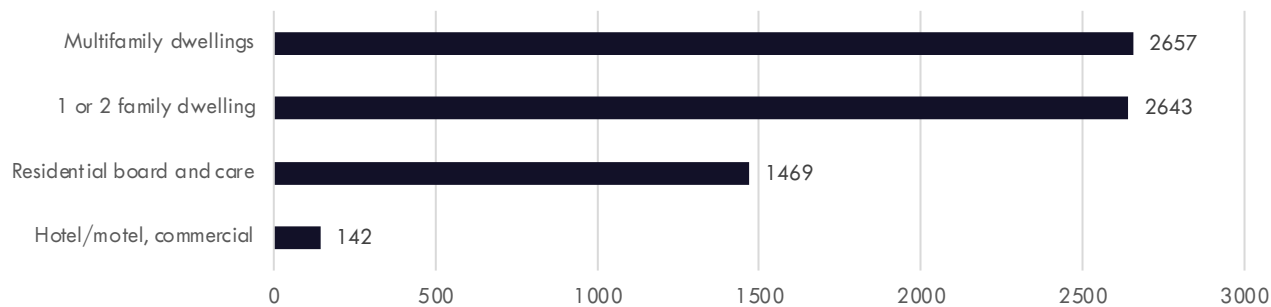
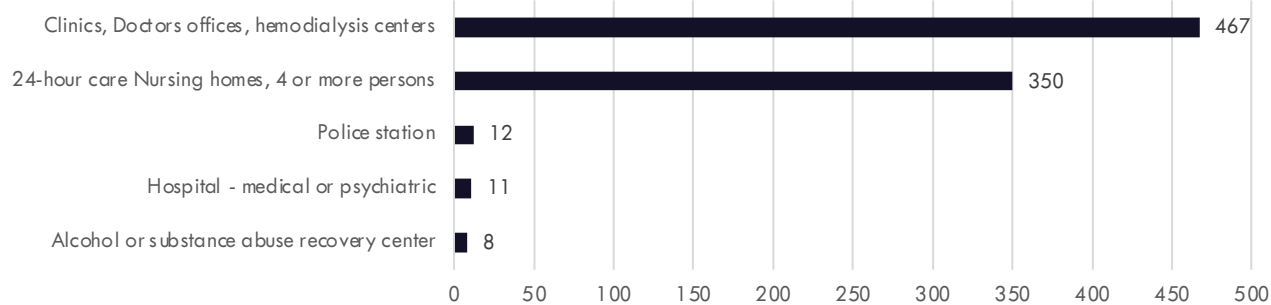


Figure 53: Total Incidents Health Care, Detention, and Correctional Property Use Breakdown 2024



One challenge of an aging community is the increased demand for EMS resources. The EMS utilization rate for the elderly is considerably higher based on the population than the average for all age groups.

Figure 54: Census Age Comparison 2019 to 2024

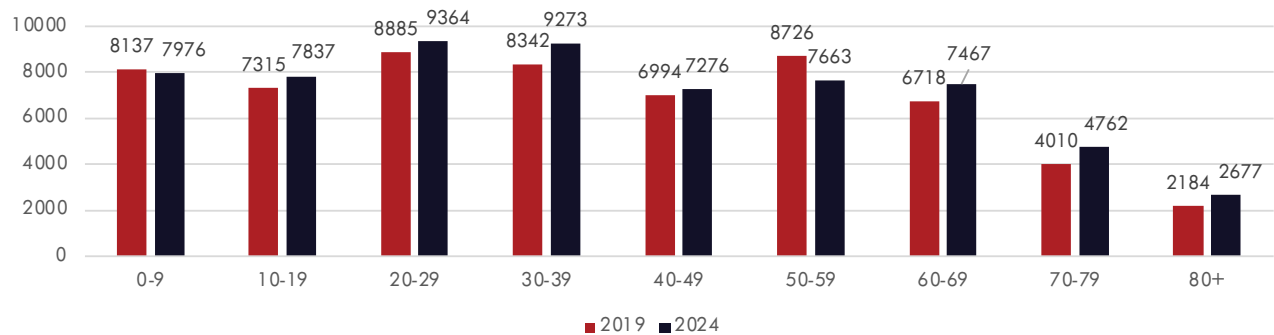


Figure 55: EMS Utilization Rate by Age/1,000 Population Comparison 2019 to 2024

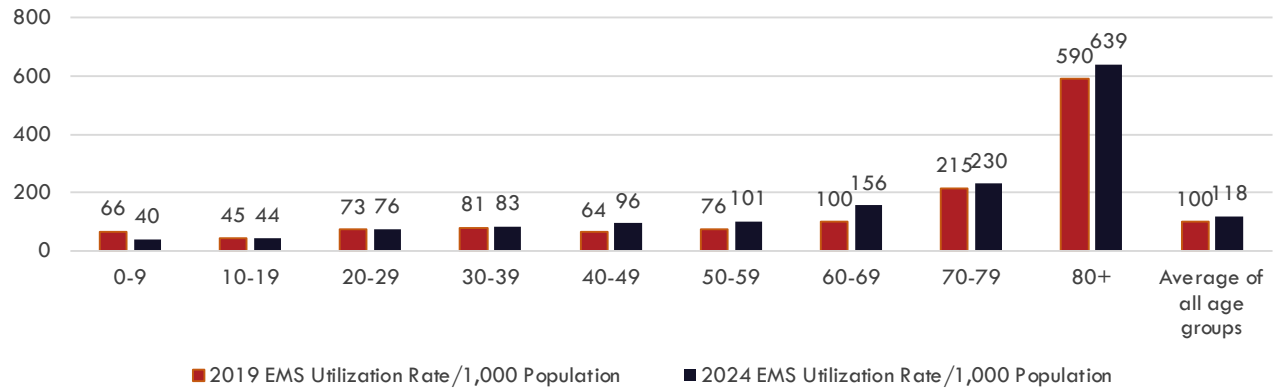
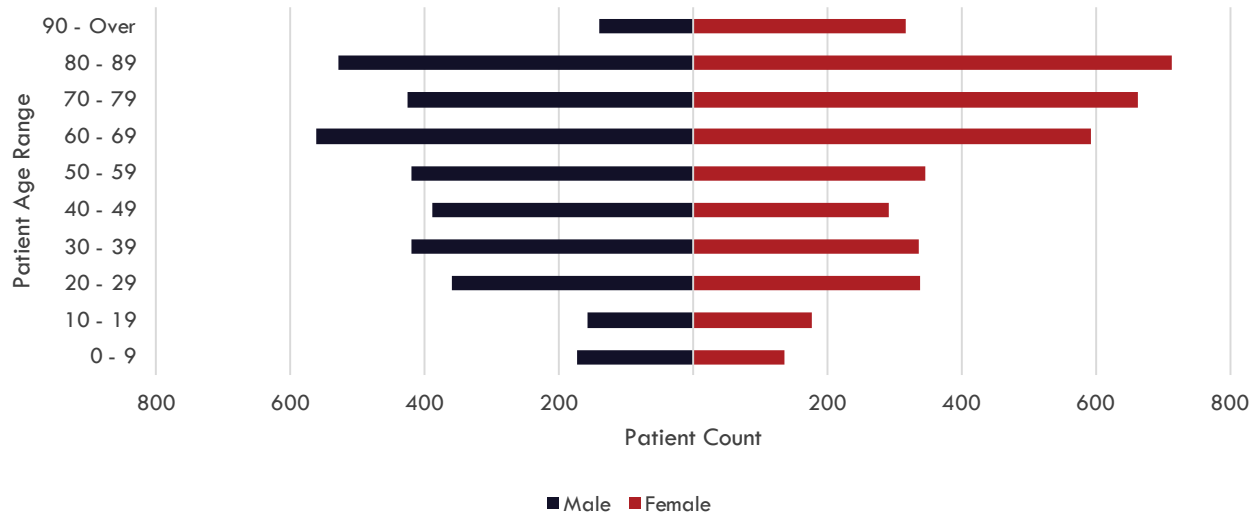


Figure 56: EMS Patient Gender and Age Range 2024



FIRE SUPPRESSION RISKS

In recent history the fire service has been able to scientifically identify changing trends in fire dynamics that decrease the window of survivability for occupants and decrease the safety margin for firefighters to operate within. One of the most significant changes has been the change in construction of residential homes and the modern materials that make up the contents within the home. Below is a comparison between legacy and modern construction.

Figure 57: Legacy Construction



- Built before 1980
- 47.5% of the City of Burnsville housing stock
- More compartmentalized, limiting fire spread
- The size of homes are usually less than 2,000 square feet
- Dimensional lumber and nails are primary construction materials

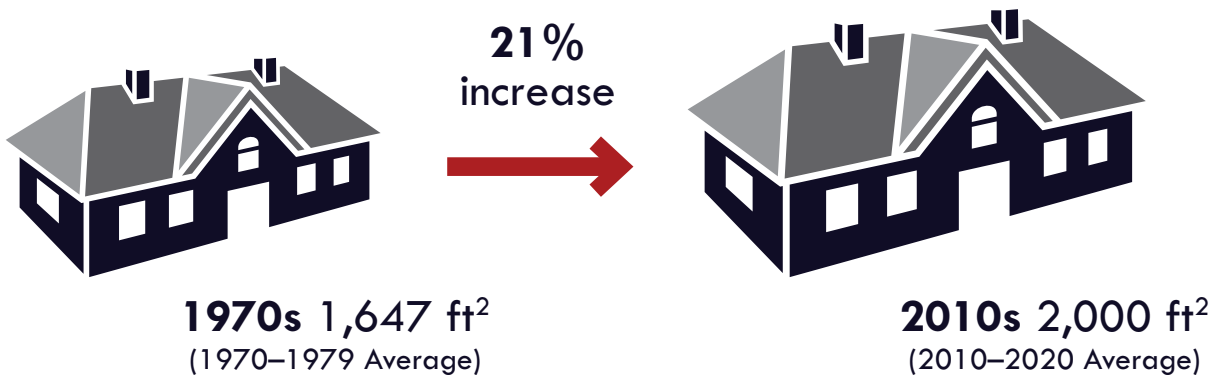
Figure 58: Modern Construction



- Built in 1980s-current day
- 52.5% of the City of Burnsville housing stock
- More open space
- Higher ceilings
- Changes in building materials means materials generally have less mass, causing them to burn or fail faster when exposed to fire



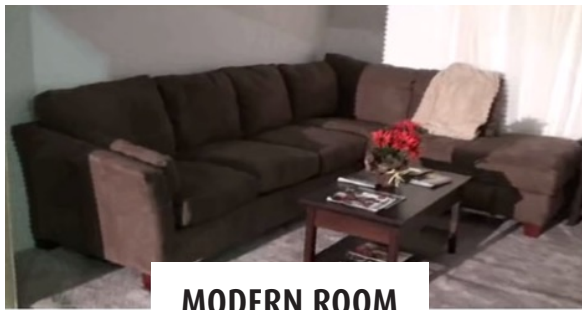
Figure 59: Average Square Footage of New Single-Family Homes*



*<https://css.umich.edu/publications/factsheets/built-environment/residential-buildings-factsheet>

What both legacy and modern construction homes have in common is the evolving fuel loads within them. Modern materials have a greater number of synthetics and plastics in them, whereas legacy materials are made of more natural substances. These materials burn at different rates and temperatures, as noted in the graph below.

Figure 60: Modern versus Legacy Room



MODERN ROOM



LEGACY ROOM



Figure 61: Modern Fuel Loads vs Legacy Fuel Loads when Exposed to Fireⁱⁱⁱ

MODERN FUEL LOADS (BLUE LINE)	LEGACY FUEL LOADS (RED LINE)
6 minutes: Ventilation limited, ceiling temperature = 1100 degrees	19 minutes: Ventilation limited, ceiling temperature = 400 degrees
9 minutes: Ventilation, ceiling temperature = 400 degrees	24 minutes: Ventilation, ceiling temperature = 200 degrees
11 minutes: Flashover, ceiling temperature = 1800 degrees	32 minutes: Flashover, ceiling temperature = 1400 degrees
Oxygen maintained above 20% until approximately 6 minutes, then a significant drop occurred to around 5% (Green Line)	Oxygen maintained above 20% until approximately 19 minutes, then steadily declined (Yellow Line)

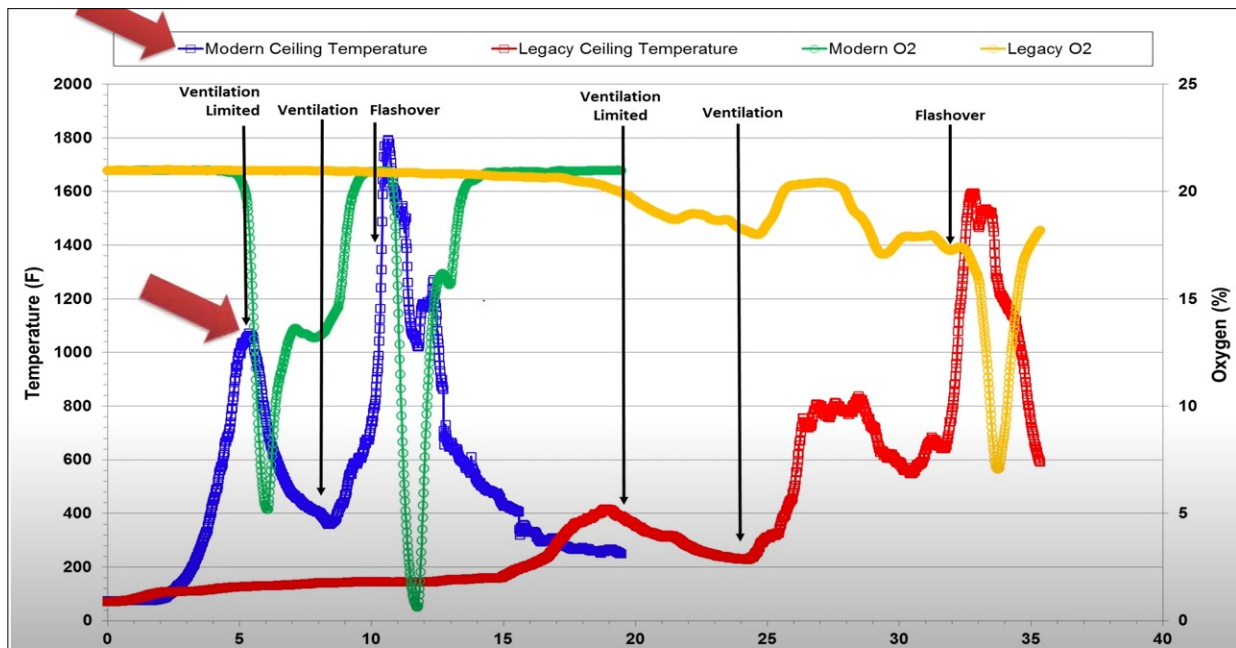


Figure 62, Timeline of a Fire, shows the growth of a fire with the fire response timeline at the bottom.

- **Minutes 0 to 3:** detection and reporting of the fire, which is the largest time variable as not all fires are immediately detected
- **Minute 4:** the fire department is initially notified of the incident. At this point the fire is growing rapidly and moving closer to a flashover condition where all of the combustible materials are ignited simultaneously
- **Minutes 4 to 9:** fire department response time, which includes turnout and travel time
- **Minute 9 to 10:** set up time such as deploying equipment and staff from the fire apparatus

The figure includes points at which residential and commercial fire sprinkler systems activate to slow the fire growth until firefighters arrive. This figure was created to show the importance of the time intervals when a fire occurs as well as the importance of fire features such as smoke alarms and fire sprinkler systems.

Figure 62: Timeline of a Fire^{xiv}

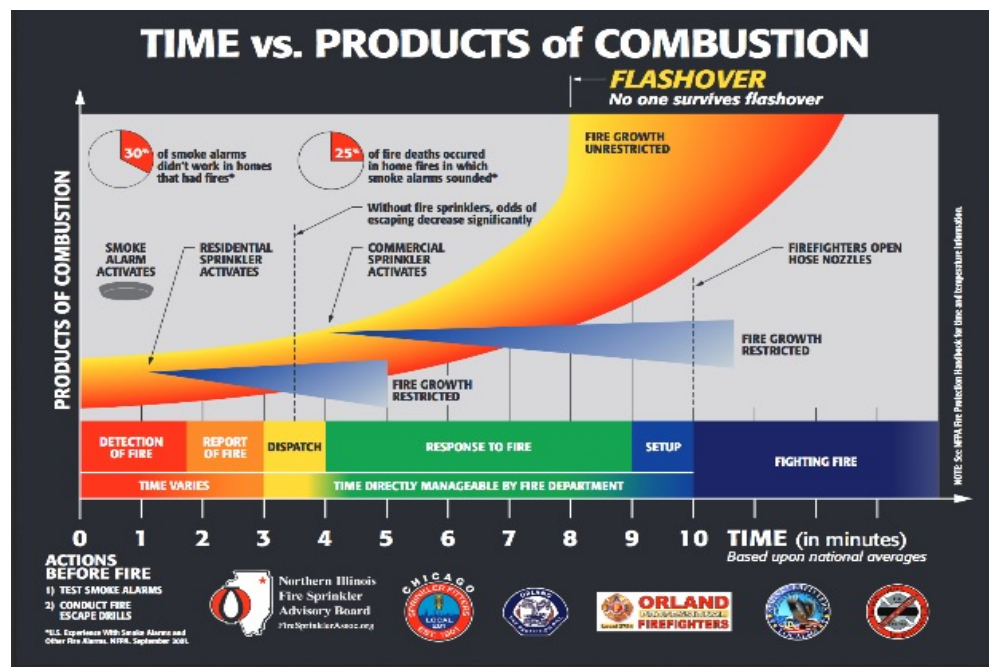


Figure 63 was created by the Underwriters Laboratory Fire Division, which has done extensive research on modern and legacy fire conditions. This research has provided valuable information to fire services on the areas of fire dynamics, firefighting tactics and effective fire tools.

Over the years, many dynamics have changed, which have created a new environment within which firefighters operate. For example, evolving fuels represent the change in contents within structures that contain petroleum products like plastics, which burn differently than legacy natural fibers like wool.

Fire environment changes have created the challenges identified in the grey box. The identified issues essentially decrease the time for fire departments to be effective for both life and property protection.

Figure 63: Modern Fire Environment™



The Civilian Fatality Based on Fire Spread figure depicts the likelihood of civilian fatalities based on the fire spread. There is a three percent chance of perishing in a fire within a structure if it is contained to the room of origin. Once the fire spreads past the room of origin, if there are still occupants in the structure, there is an 81 percent chance of perishing due to the fire. Statistics stress the importance of keeping fires within the room of origin, which takes not only a rapid-fire response but also rapid detection of the fire.

Figure 64: Civilian Fatality based on Fire Spread^{vi}

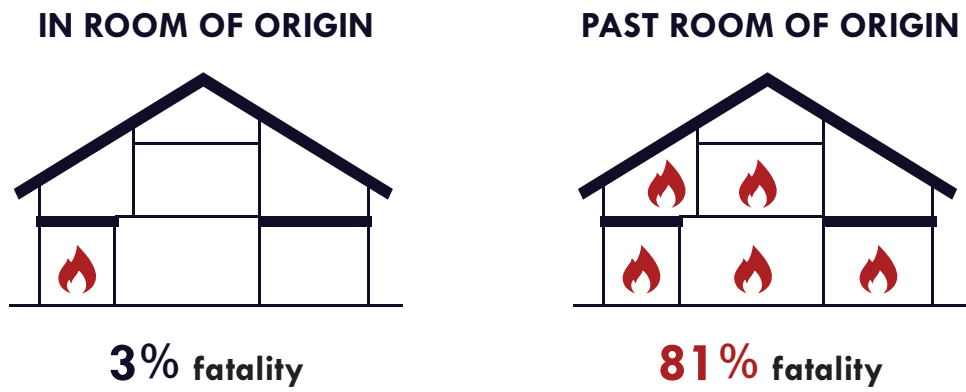
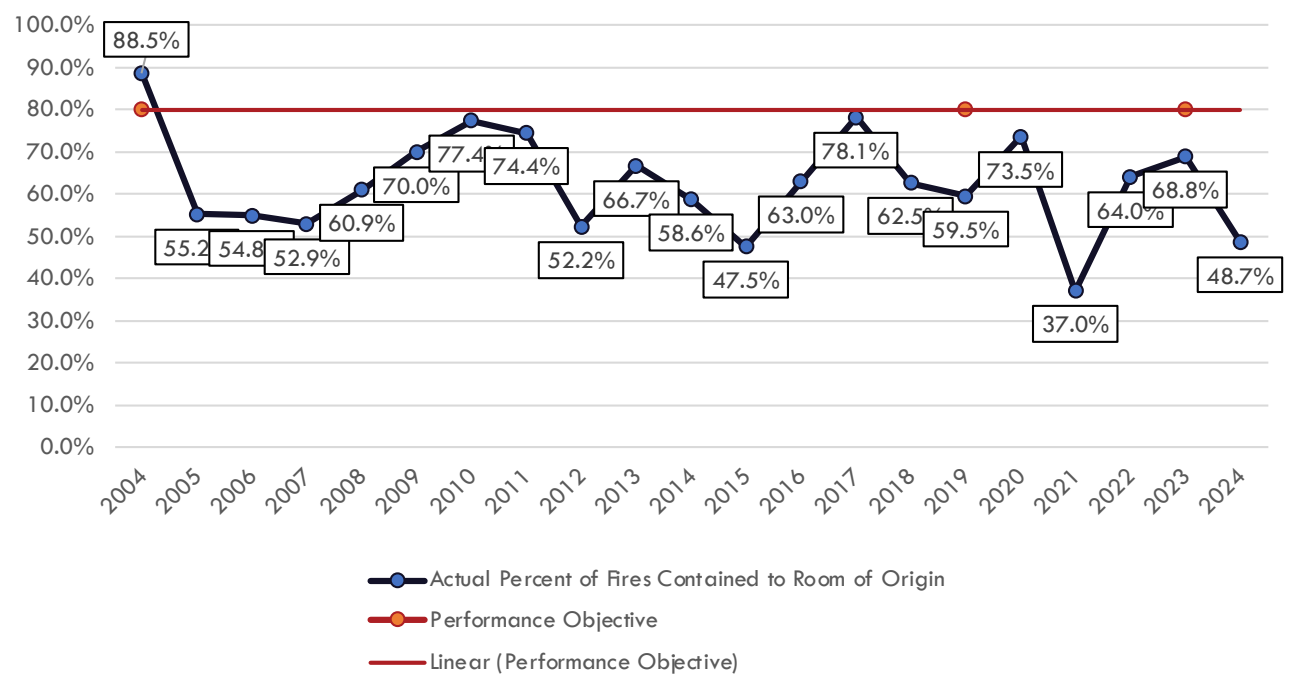


Figure 65: Percent of Fires Contained to Room of Origin by Year with Performance Objectives



In the past 20 years, the Burnsville Fire Department was only able to achieve the baseline goal of containing fires to the room of origin 80 percent of the time.

Many factors go into the possibility of room of origin containment, some are within the scope of control of the Burnsville Fire Department and some are outside. Some important factors include outside fires such as decks and patios that are considered outside the room of origin, detection time for fires, dispatch, turnout and travel times. Based on the Timeline of Fire figure above, as well as Burnsville Fire Department response times, many fires are beyond the room of origin when crew arrives. Previous prevention campaigns in high-risk occupancies, such as the 2012 Fire Prevention and Safety Grant highlighted in below charts, have shown progress toward limiting fire spread.

The figure below shows the chance of survival, overall cost to fix and how long the occupants will be displaced. The fire spread along this continuum happens in just a few minutes. The first two scenarios on the left give the occupants the greatest chance of survival, which is prior to a flashover, when all the combustible materials are ignited simultaneously.

Once flashover occurs, the likelihood of survival dramatically decreases to three percent and then to zero. It is also notable that the cost to fix the structure in the middle of the continuum is over 100 percent of the value of the property and entails the longest displacement. A structure that is partially burned is hazardous and challenging to rebuild.

Figure 66: Survival, Cost and Displacement by Fire Development^{xvii}

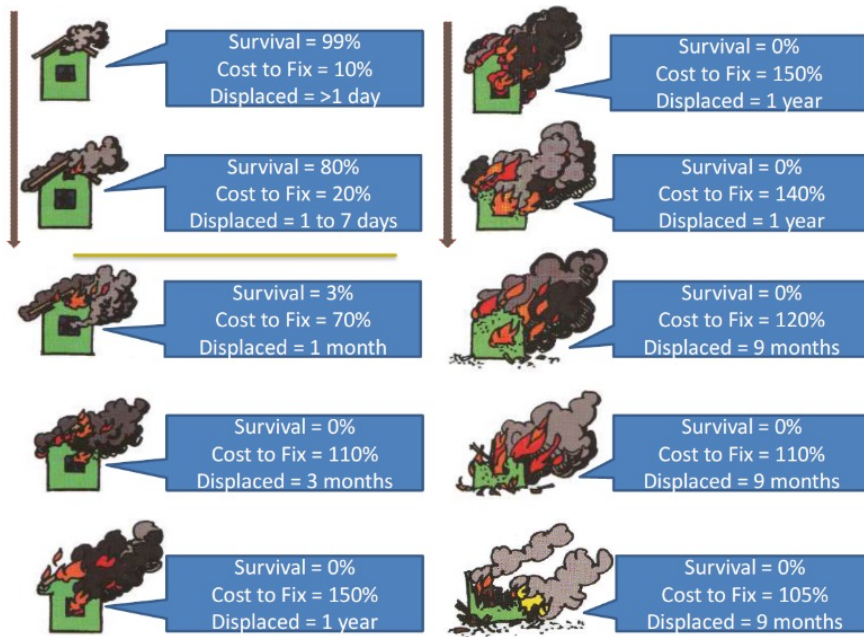


Figure 69 shows non-EMS related calls for service from 2011-2024 that include civilian and/or firefighter injuries. Both single family and multi-family properties have the greatest fire loss and injury impact.

Figure 67 and Figure 68 represent data from before and after the implementation of the 2012 Fire Prevention and Safety Grant. The grant funds provided each individual apartment unit with a fire safety DVD translated into four languages (English, Spanish, Somali and Russian) and fire-resistant smoking “butt buckets.” Additionally, high-risk units received Stovetop Firestop systems that are installed under the cooking hood and extinguish a cooking fire.

During this same time, the rental ordinance was changed to require inspections and participation in the prevention activities. The data from 2016 shows considerable improvement since the changes in the rental ordinance and implementation of the grant.

Figure 67: Average Annual Multi-Family Fire Injury/Fatalities Pre/Post Grant

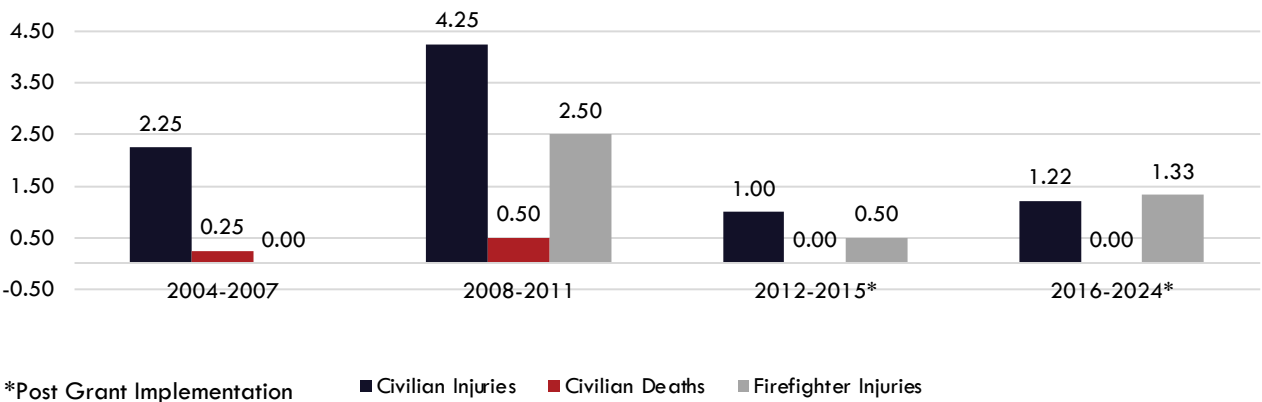


Figure 68: Average Annual Multi-family Dollar Loss Pre/Post Grant

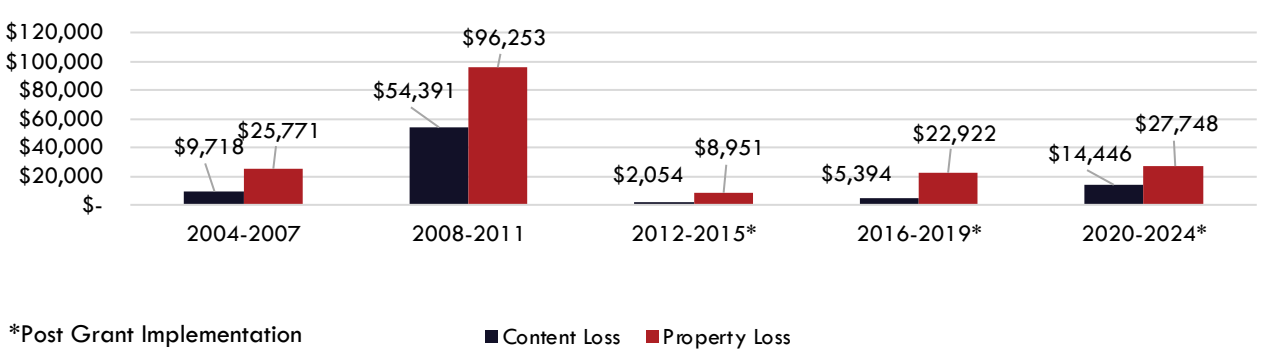
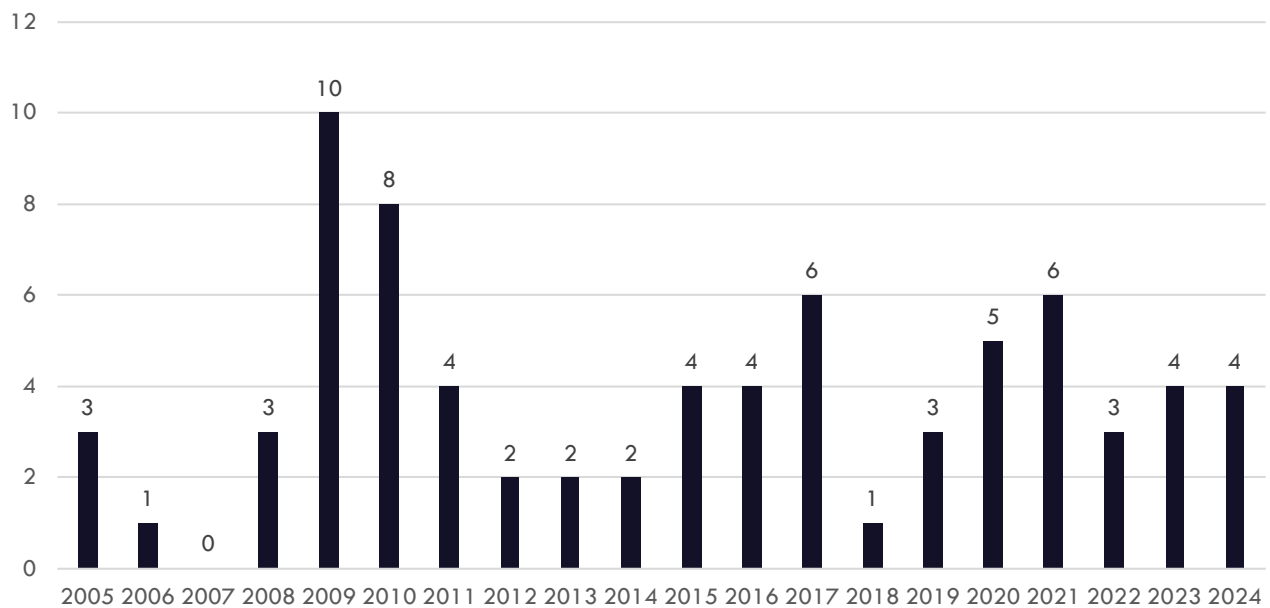


Figure 69: Non-EMS Incidents with Civilian and Firefighter Injury and Death 2011-2024

# of Incidents	Property Use	Property Loss	Content Loss	Civilian Injury	Firefighter Injury	Civilian Death	Firefighter Death
5	Business	\$6,000	\$256,000	7	0	0	0
7	Highway/Street	\$116,500	\$6,300	7	0	2	0
20	Single-family	\$1,150,300	\$484,300	27	3	0	0
28	Multi-family	\$2,385,150	\$1,248,880	35	3	0	0

Figure 70: Firefighter Injury on Non-EMS Incidents



The Burnsville Fire Department has 15 years of accessible fire structure data available to trend. Given the low number of structure fires per year, a multi-year look gives a clearer picture of the structure fire risk in the community.

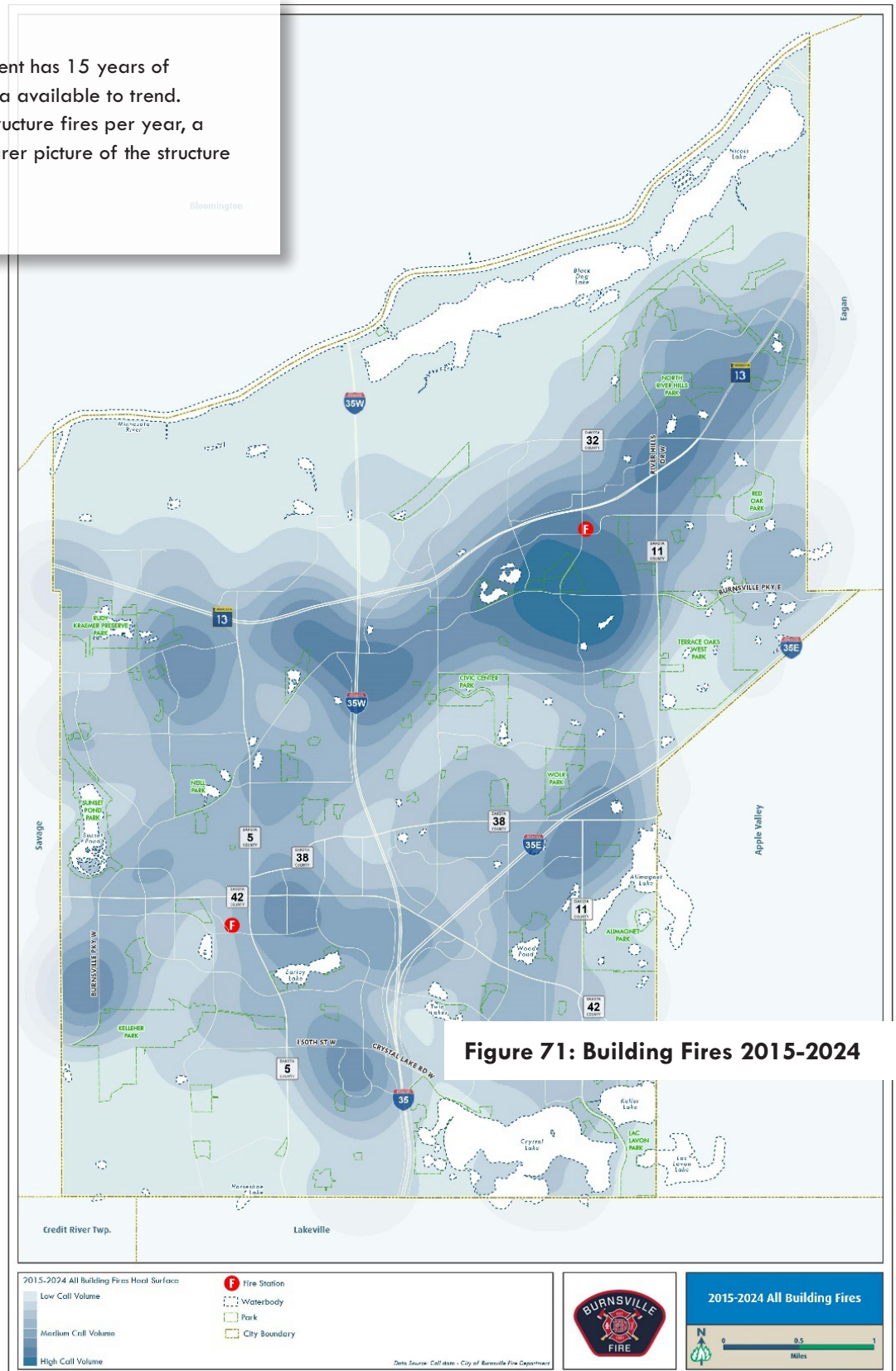
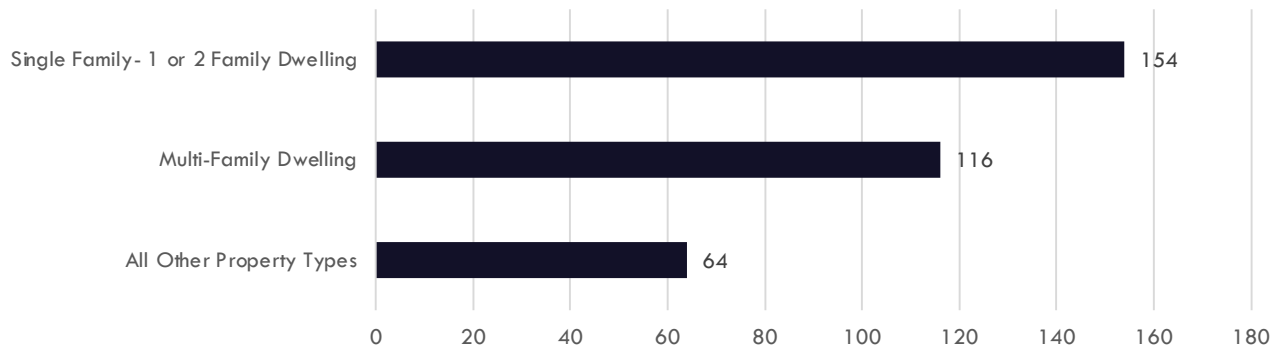


Figure 72: Building Fires by Property Use 2015-2024



The City of Burnsville contains a diversity of housing types, with higher proportions of multi-family housing, townhomes, duplexes, and triplexes than comparable suburban locations. Housing and Commercial Needs Assessment, (Stantec 2024).

SERVICES PROVIDED

FIRE SUPPRESSION

The Burnsville Fire Department provides a coordinated fire suppression service to the community. Any structure fire response requires the use of automatic aid and mutual aid in order to summon the necessary resources to operate safely and effectively.

Smaller fires such as vehicles and dumpsters can be handled by on-duty staff within the City of Burnsville as long as they are available when the emergency call is received. In 2024, the Burnsville Fire Department is made up of 58 personnel; 56 of these are trained and licensed as firefighters. Continuous training is imperative to the readiness model of fire suppression. Personnel need to be prepared and trained to respond to numerous fire related incidents (fire alarms, brush fires through structure fires).

FIRE TRAINING REQUIREMENTS (INITIAL/ONGOING)

Figure 73: Fire Training Requirements

COMPETENCY	ISO	NFPA	MINNESOTA STATUTE
Firefighter	240/192 hours per year	54 Knowledge & Skill Requisites ^{xviii}	72 hours over 3 years
Fire Officer	12 hours per year	160 Knowledge & Skill Requisite ^{xix}	N/A
Apparatus Operator	60/12 hours per year	18 Knowledge & Skill Requisites ^{xx}	Regular training ¹

Figure 74: Burnsville Fire Department Training Hours

	2023	2024
Average Hours of training per Burnsville Firefighter	174 Hours	256 Hours
Total Hours of Training by Burnsville Fire Department	8,882 Hours	15,648 Hours

¹ Minnesota exempts firefighters from the DOT requirements of having a Class B driver's license to operate vehicles that exceed the Class D driver's license requirements as long as they have training to operate the emergency vehicles.

Training hours and completions were logged by members and validated by their supervisors using the Burnsville Fire Department's record management software. This method of tracking began mid-2018.

Training is comprised of both on-duty and off-duty training. On-duty training is generally shorter in duration and is based at a company level since crews are still required to respond to calls in an emergency capacity. The nature of emergency response requires some topics must be covered outside of regular shift hours. Topics covered in off-duty trainings allow for training to be conducted without interruptions. These training sessions are mandatory for the re-certification of both fire and EMS credentials, are complex featuring multiple company operations, and/or require a great deal of set-up and clean-up of equipment, making them unachievable on duty.

EMS TRAINING

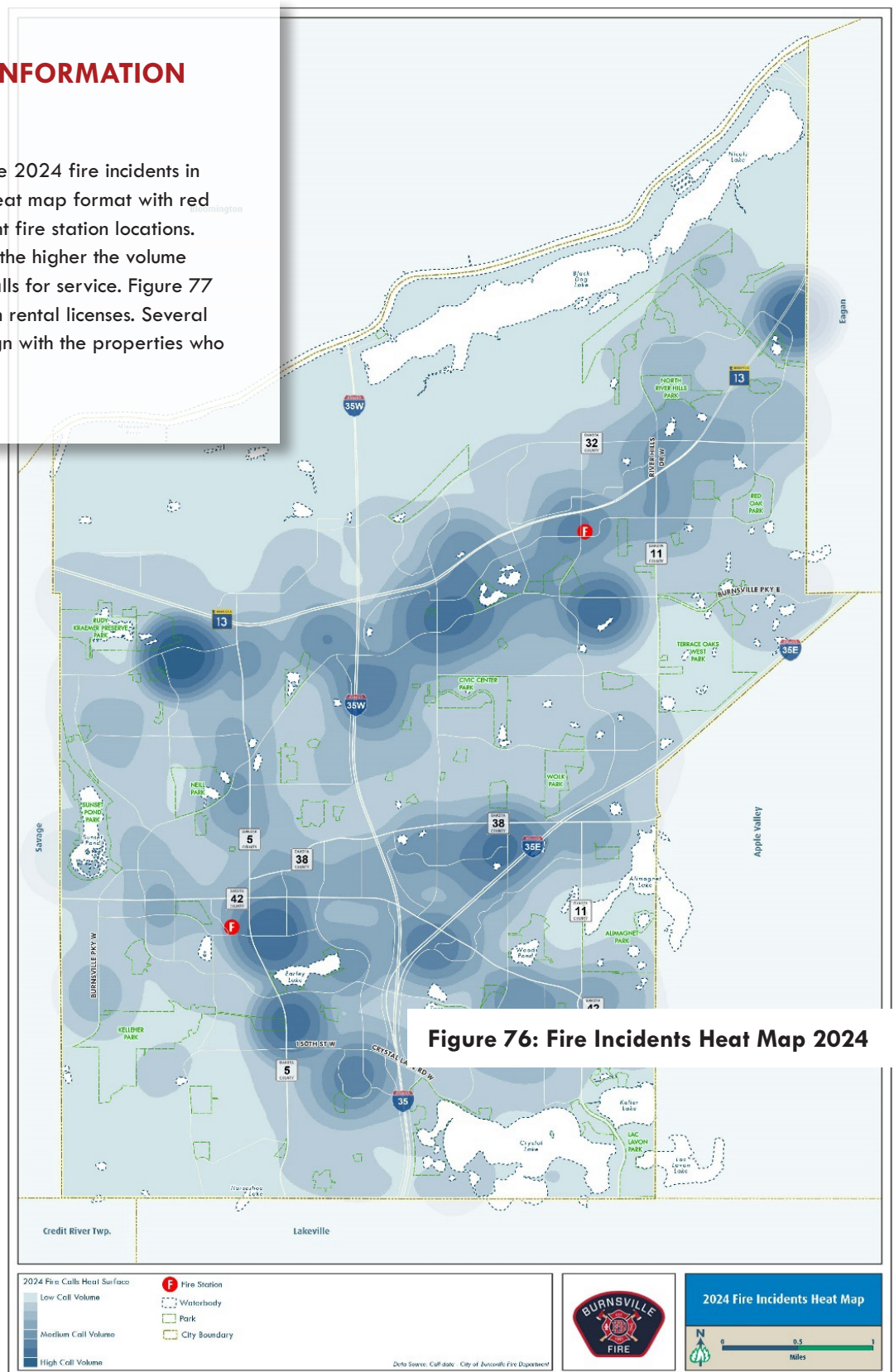
The current training requirements are set by the National Registry of Emergency Medical Technicians (NREMT). Figure 75 shows the requirements based on the level of certification per biennium. The Burnsville Fire Department primarily uses paramedics to staff apparatus, which requires a minimum of 60 hours of continuing education throughout a two-year recertification period, signified by the level NRP on Figure 75 below. The state of Minnesota has adopted the national standard, streamlining the recertification and continuing education requirements. The national and local hours are prescribed topics that must be taught during that two-year recertification period.

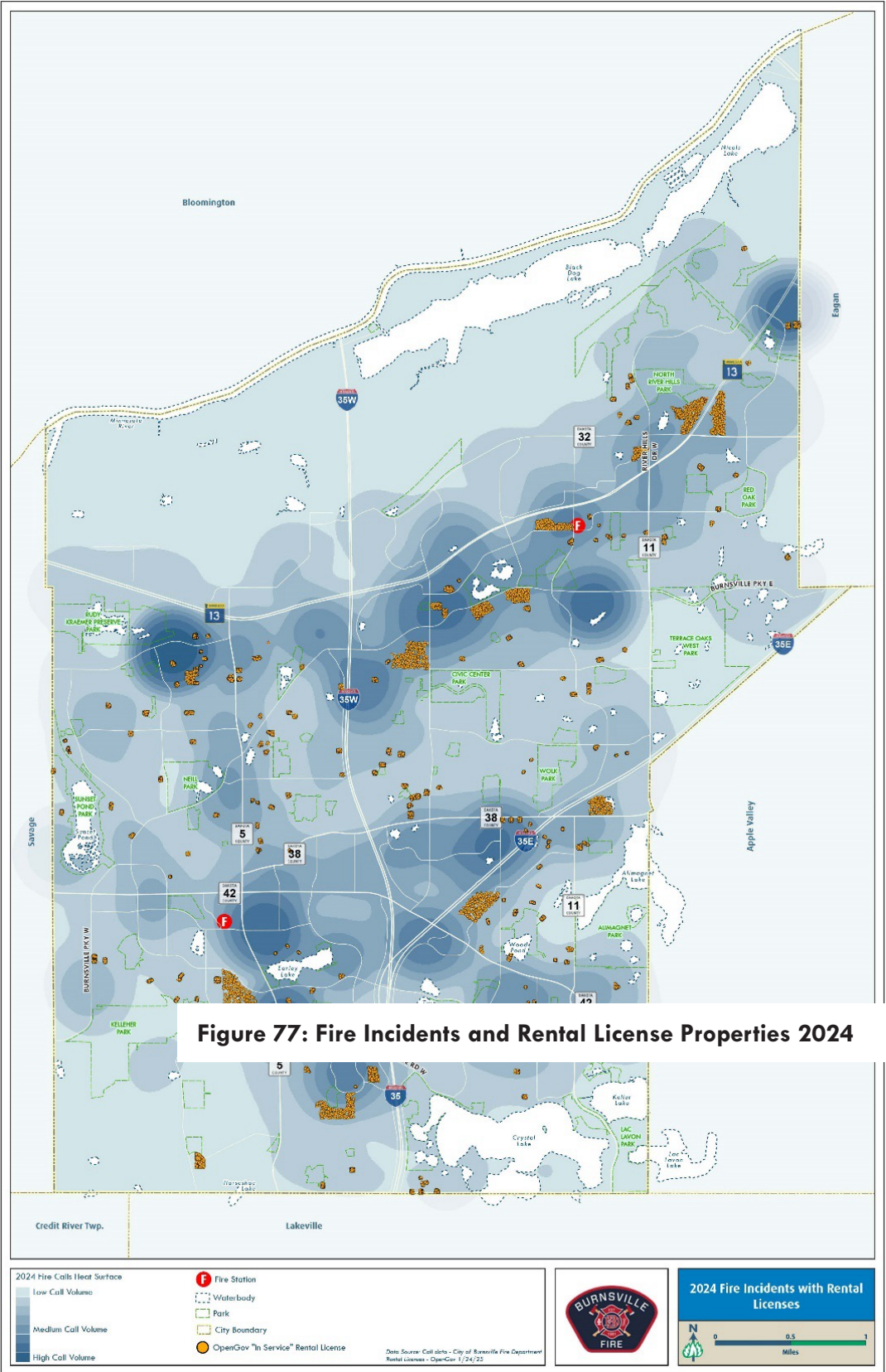
Figure 75: National Registry of Emergency Medical Technicians Continuing Education Requirements^{xxi}

LEVEL	# CEU HRS	NATIONAL (NCCR)	LOCAL (LCCR)	INDIVIDUAL (ICCR)	TOTAL (ALL)
EMR	Total (per component)	8	4	4	16
	Allowable Distributive Education (DE)	3	3	4	10
EMT	Total (per component)	20	10	10	40
	Allowable Distributive Education (DE)	7	7	10	24
AEMT	Total (per component)	25	12.5	12.5	50
	Allowable Distributive Education (DE)	8	8	12.5	28.5
NRP	Total (per component)	30	15	15	60
	Allowable Distributive Education (DE)	10	10	15	35

FIRE STATISTICAL INFORMATION (2024)

The following maps show the 2024 fire incidents in the City of Burnsville in a heat map format with red dots representing the current fire station locations. The darker the blue shade, the higher the volume and concentration of fire calls for service. Figure 77 overlays the properties with rental licenses. Several of the deep blue areas align with the properties who operate a rental license.





The following charts depict incidents that contained active fire during 2024. There was a total of 139 active fire incidents within the City of Burnsville. Of those 139, mutual aid was received 28 times and auto aid was received 28 times. These active fire incidents can range from car fires up to structure fires. These charts break down the incidents by month, day of week and hour of day to determine patterns and assist in analyzing the risk established by the demand for service. October was the busiest month with 24 active fires and February and April the least busy with six active fires each. Tuesdays were the least busy day for fires while Thursdays were the busiest days. The 3:00 p.m. hour was the busiest time of day for active fires.

Figure 78: Active Fire Incidents by Month in the City of Burnsville 2024

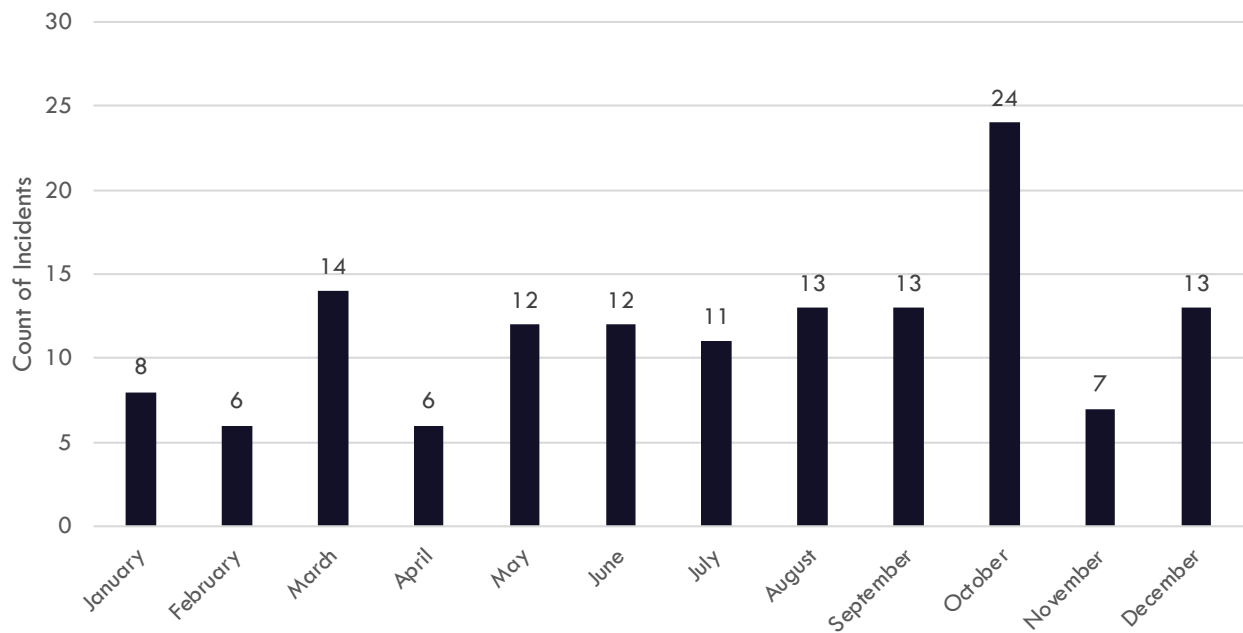


Figure 79: Active Fire Incidents by Day of Week 2024

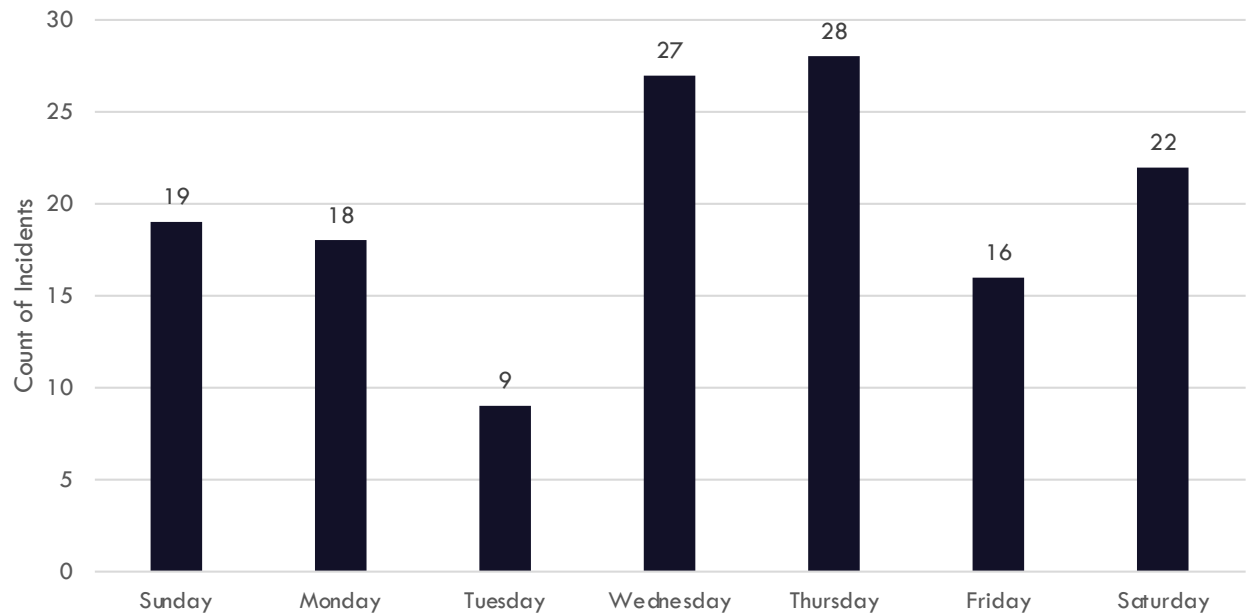


Figure 80: Active Fire Incidents by Hour of the Day 2024

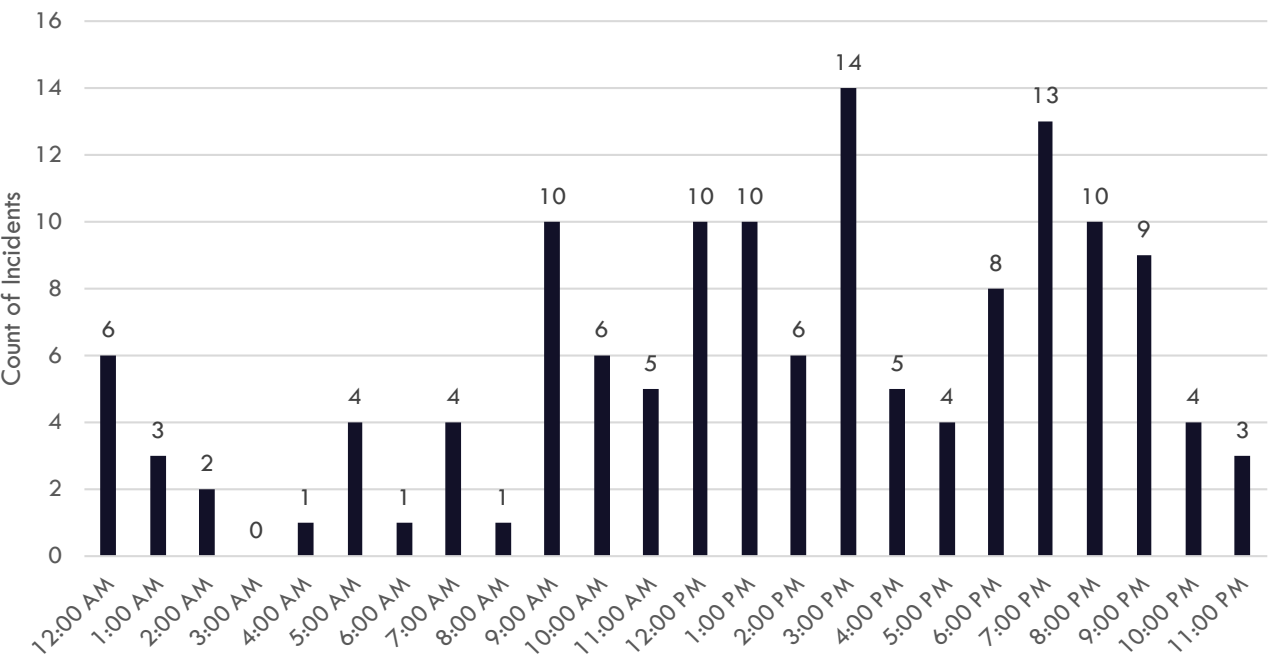
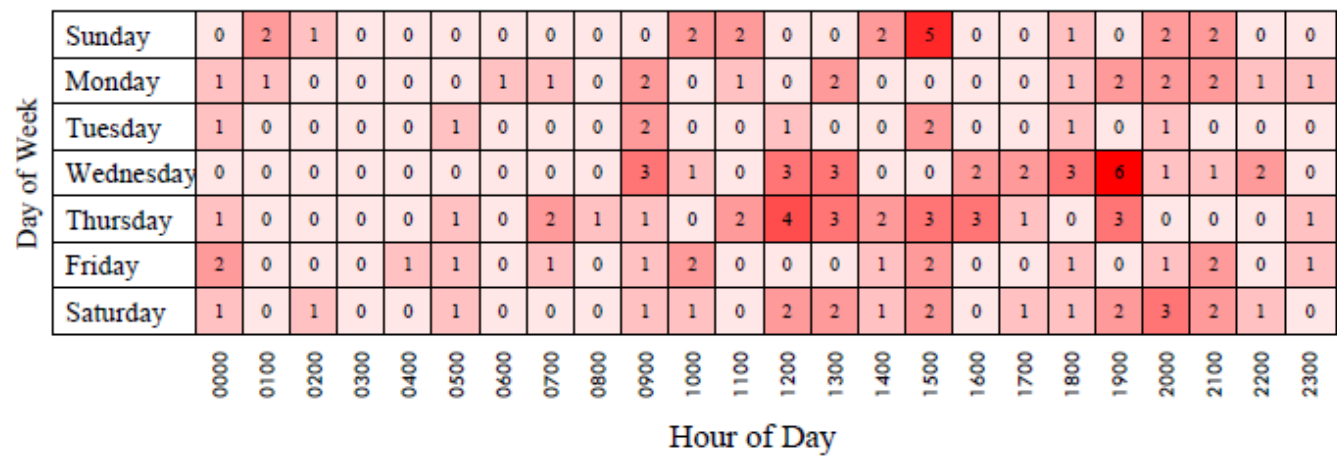


Figure 81: Active Fire Incidents by Hour of Day and Day of Week 2024



The following Figure 82 shows fire property loss by month for building fires only. The experience of property loss generally follows the same curve as the demand for active fires for the month. 2024 was an exception to this with most active fires being in October, but with only 4 building fires and low property dollar loss. September had the most significant dollar loss and was tied for third highest months for active fires.

Figure 82: Building Fire Property Losses by Month 2024

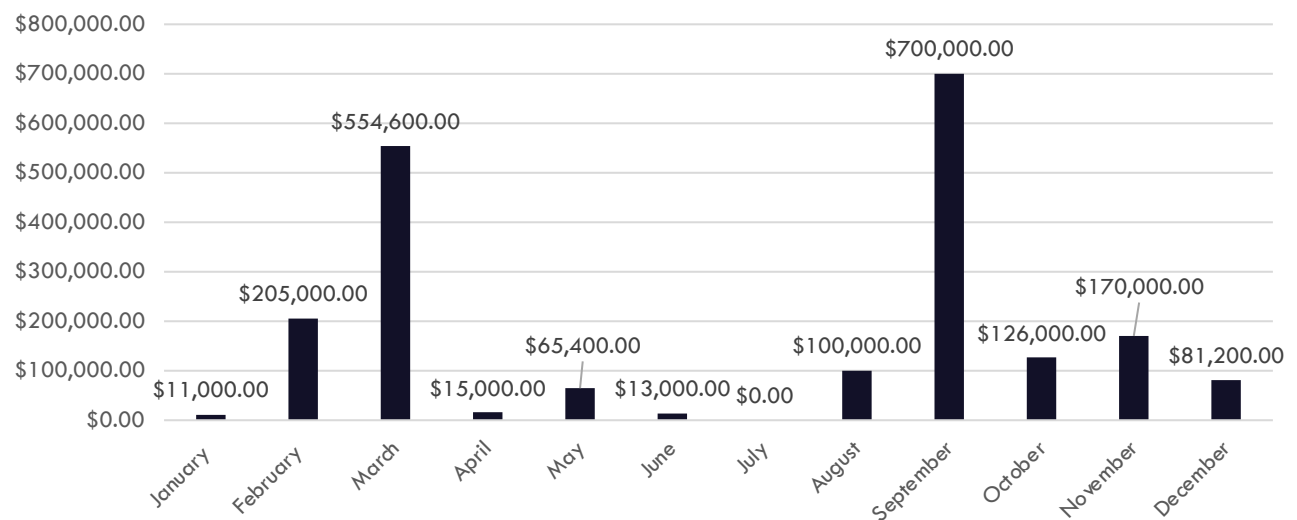
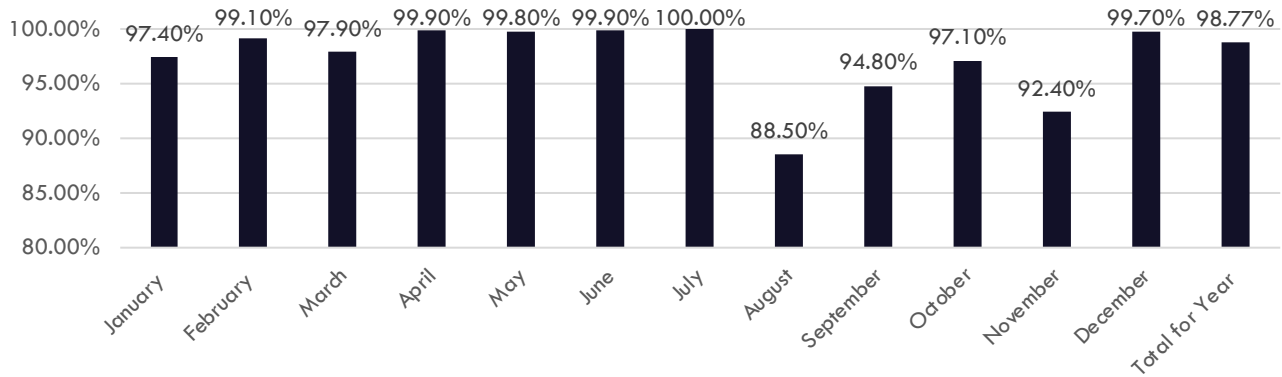


Figure 83: Percentage of Property Saved by Month



	PRE-INCIDENT PROPERTY VALUE	PROPERTY LOSS	PROPERTY SAVED	% OF PROPERTY SAVED
January	\$422,218	\$11,000	\$411,218	97.40%
February	\$22,536,600	\$205,000	\$22,331,600	99.10%
March	\$26,612,733	\$554,600	\$26,058,133	97.90%
April	\$19,972,800	\$15,000	\$19,957,800	99.90%
May	\$29,853,300	\$65,400	\$29,787,900	99.80%
June	\$16,361,800	\$13,000	\$16,348,800	99.90%
July	\$1,800,000	\$0	\$1,800,000	100.00%
August	\$872,000	\$100,000	\$772,000	88.50%
September	\$13,348,400	\$700,000	\$12,648,400	94.80%
October	\$4,298,400	\$126,000	\$4,172,400	97.10%
November	\$2,228,500	\$170,000	\$2,058,500	92.40%
December	\$27,143,100	\$81,200	\$27,061,900	99.70%
TOTAL	\$165,449,851	\$2,041,200	\$163,408,651	98.77%

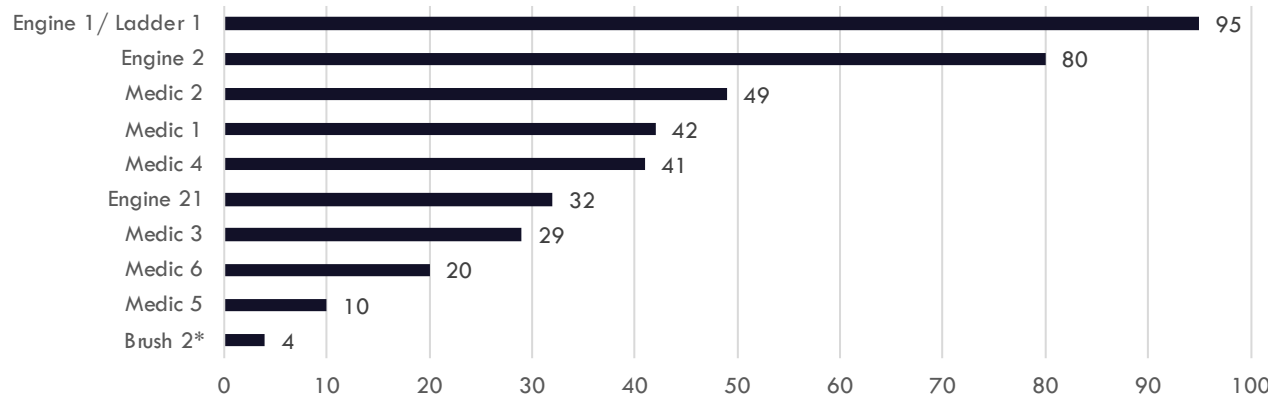
Figure 84: Active Fire Incidents by Primary Station 2024



The demands between stations for 2024 were higher for Fire Station 1. The Figure 85 below shows the vehicles that responded to the active fires in 2024.

Station 1 houses Ladder 1, which is cross-staffed with the crew from Engine 1 and is dispatched to most structure fires when Engine 1 crew is in quarters. Engine 21 responded to 32 of the active fires in the City of Burnsville. Engine 21 is the reserve fire engine and could respond from either station, as it is used when one of the primary fire engines is out for service or when off-duty firefighters respond to the station to assist on incidents that require additional resources.

Figure 85: Active Fire Apparatus Responses 2024



The charts below show the response time data in both averages and 90th percentile. The average time shows the middle of the time segment, half of the residents would receive a faster response, and half would receive a slower response than the average. The 90th percentile shows a more inclusive and reliable performance measure so that 9 out of 10 residents would receive that response time or faster, leaving only 10 percent of the response longer than the 90th percentile.

Figure 86: Response Performance by Unit – Averages for Active Fires 2024²

Unit	Count of Incidents	Turnout Time (Dispatch to En Route)	Travel Time (En Route to Arrival)	Total Response Time (Dispatch to Arrival)	Total Time on Task (Dispatch to Clear)
Brush Truck*	4	00:04:54	00:01:20	00:06:53	00:19:09
Engine 1	50	00:01:11	00:04:20	00:05:31	00:45:30
Engine 2	72	00:01:14	00:04:16	00:05:30	00:47:08
Engine 21	31	00:01:15	00:06:23	00:07:36	01:03:40
Ladder 1*	39	00:01:49	00:06:16	00:08:06	01:11:46
Medic 1	40	00:01:12	00:04:41	00:05:55	00:53:18
Medic 2	43	00:01:08	00:05:56	00:07:01	00:34:17
Medic 3	27	00:00:51	00:04:20	00:05:10	00:37:53
Medic 4	37	00:01:02	00:06:00	00:07:03	00:51:12
Medic 5	10	00:01:12	00:04:51	00:06:01	01:14:13
Medic 6	20	00:01:05	00:04:02	00:05:04	00:52:05

²Emergent Only, Active Fires *Cross-staffed Vehicles

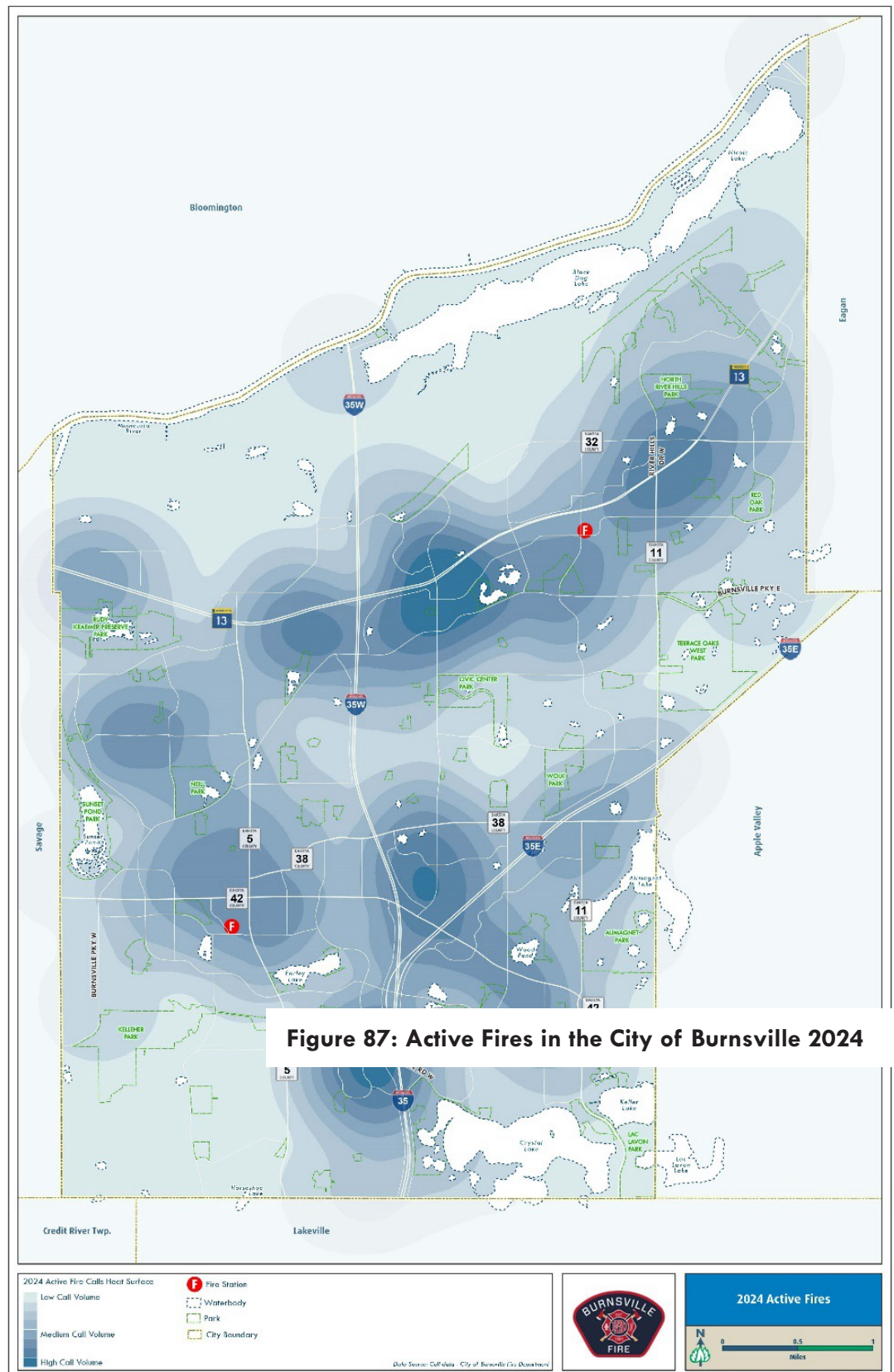


Figure 88 analyzes all active fire incidents that have occurred in the City of Burnsville during the calendar years 2015 through 2024. The report accounts for 981 active fires over the past ten years. The ten-year trend shows Monday as the busiest day for active fires with 166 and Sunday is the least busy with 117. The busiest hour of the day is 7:00 p.m. for active fires with 79 fires and the 3:00 a.m. hour is the least busy with 4 over the past ten years.

Figure 88: Day of Week Fires Occurred 2015-2024

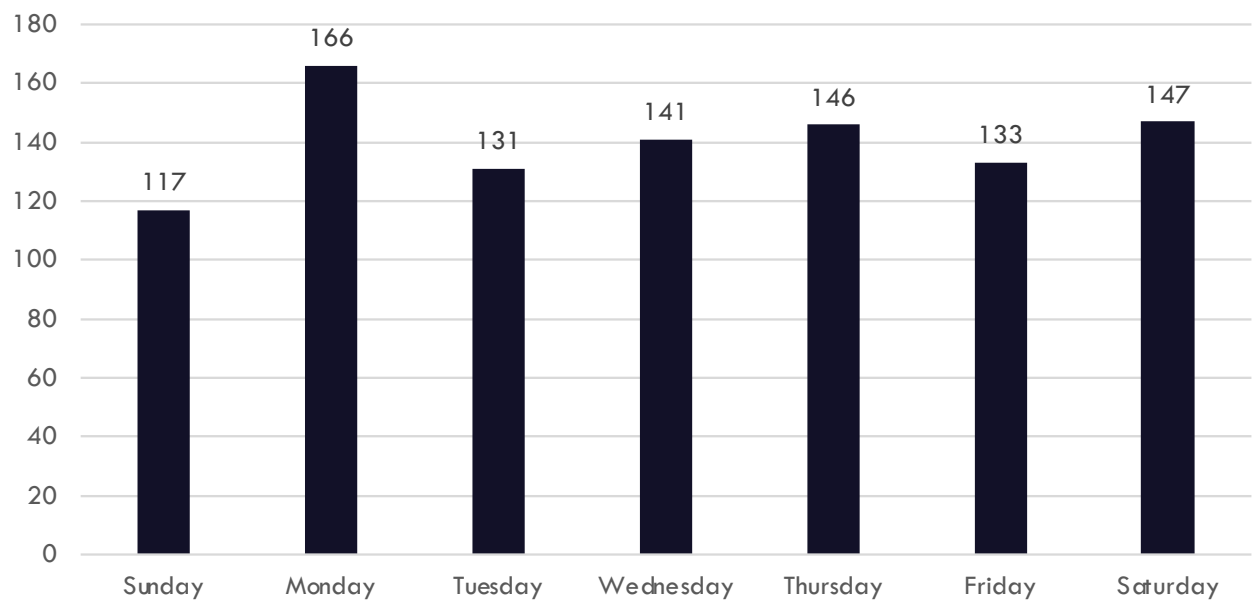


Figure 89: Hour of the Day Fires Occurred 2015-2024

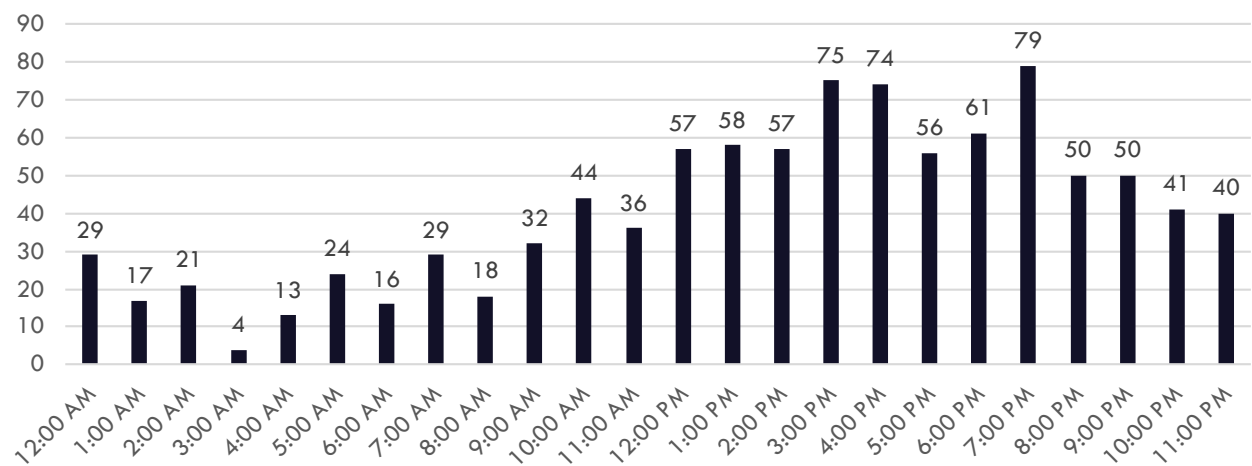


Figure 90: Hour of the Day and Day of Week Fires Occurred 2015-2024

Sunday	4	4	3	0	1	1	0	3	2	1	4	5	5	6	12	14	8	8	4	10	5	8	9	0
Monday	2	2	5	0	5	9	2	4	2	8	4	4	15	11	6	13	10	8	5	10	9	12	6	14
Tuesday	5	1	3	1	2	2	1	5	2	3	8	2	10	10	6	12	8	9	10	11	4	4	5	7
Wednesday	2	6	4	1	1	1	6	4	4	5	7	9	5	7	7	6	10	7	14	15	6	5	7	2
Thursday	6	1	2	0	1	6	2	4	4	6	5	5	11	8	7	12	12	11	10	13	6	2	6	6
Friday	3	0	2	1	3	3	2	6	1	5	8	5	3	11	7	11	14	4	9	8	9	11	3	4
Saturday	7	3	2	1	0	2	3	3	3	4	8	6	8	5	12	7	12	9	9	12	11	8	5	7
	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300

Of the 981 active fires in the past ten years, 289 were active structure fires. The map below shows the 54 structure fires with over \$100,000 of property loss.

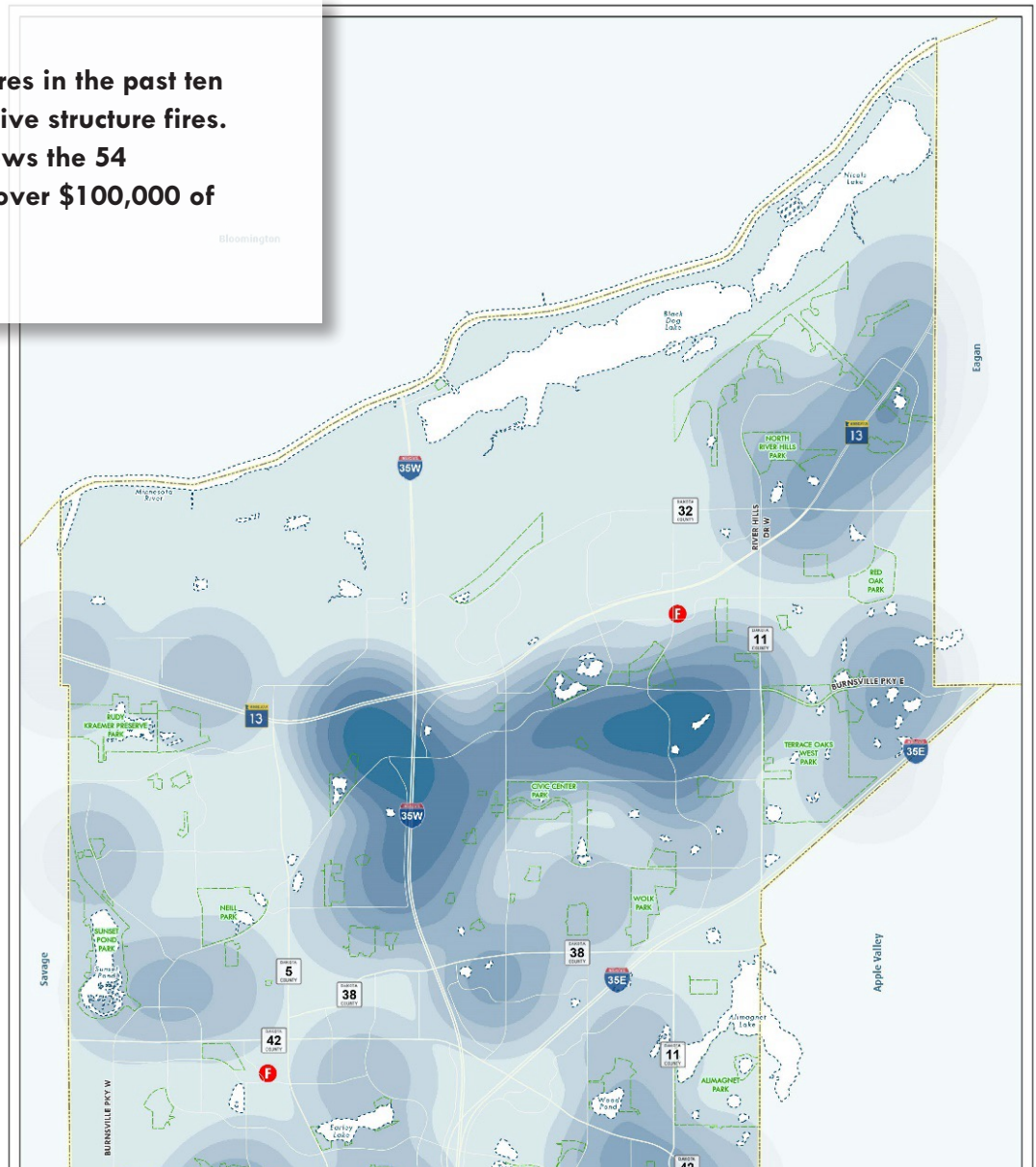


Figure 91: Building Fires Heat Map with over \$100,000 of Property Loss 2015 - 2024



The Figure below shows all structure fires in the past ten years in a heat map format. The darker blue represents higher structure fire call volume and concentration of those calls.

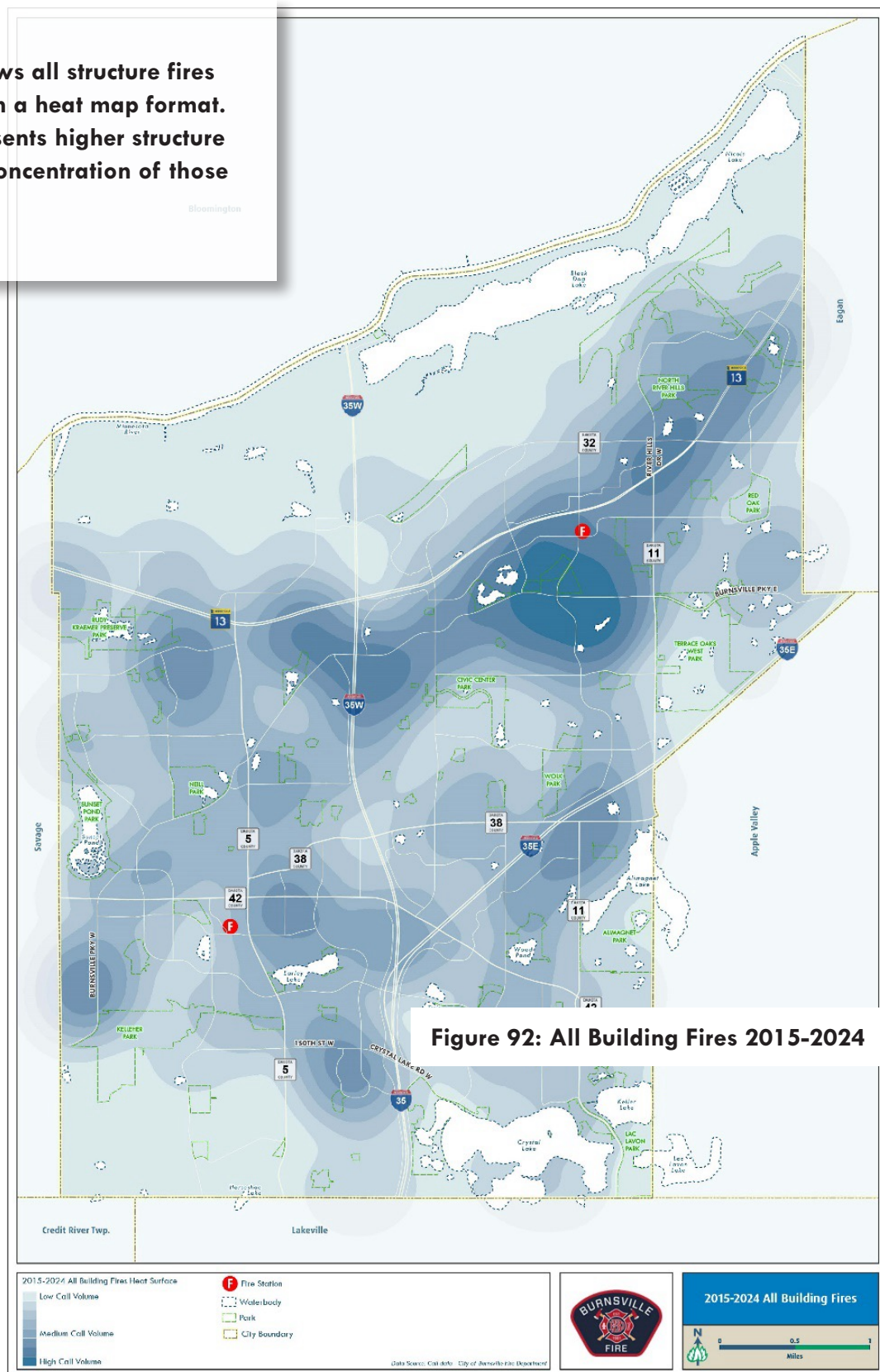
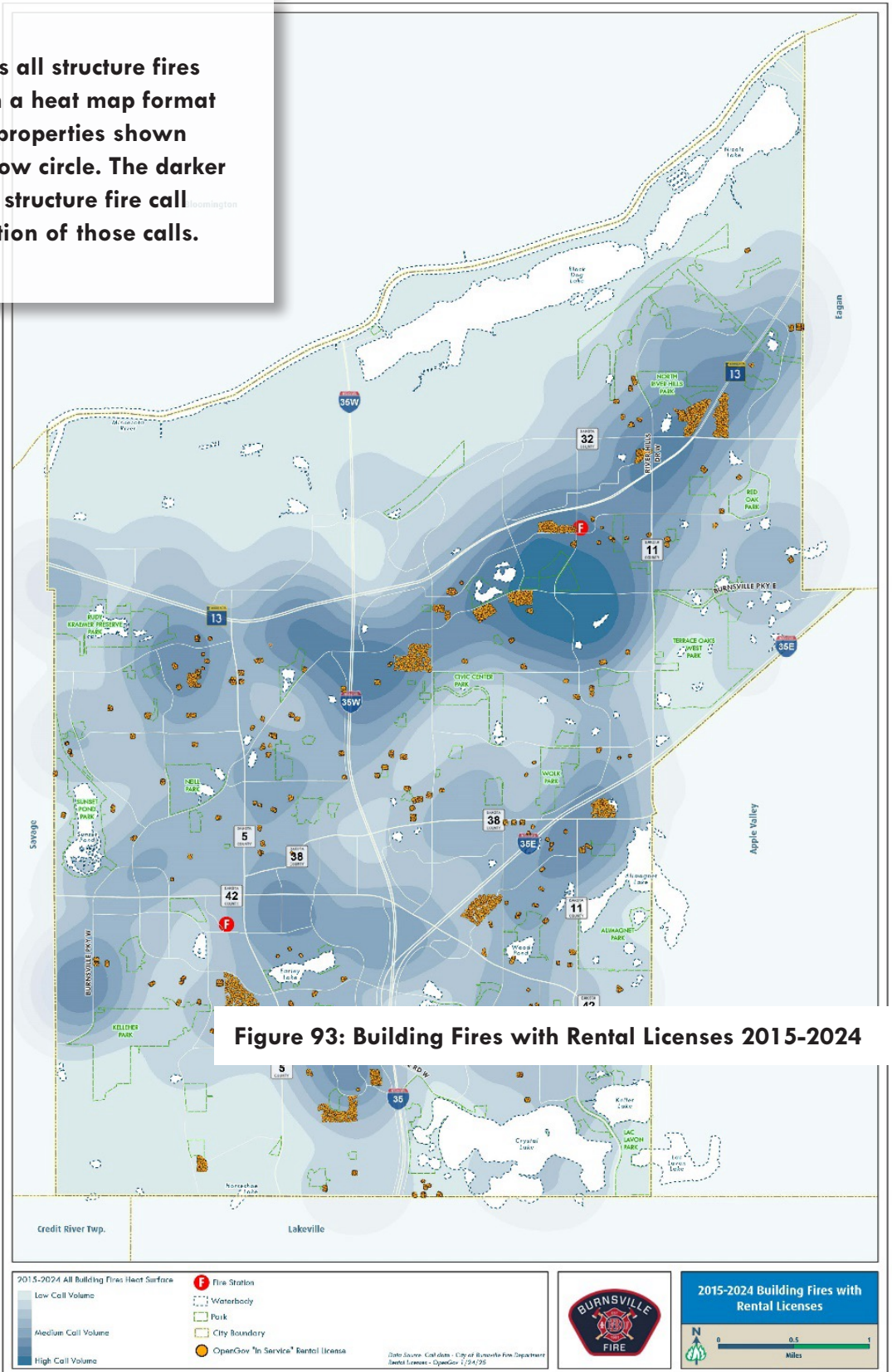


Figure 93 below shows all structure fires in the past ten years in a heat map format with all rental license properties shown with an orange or yellow circle. The darker blue represents higher structure fire call volume and concentration of those calls.



EMERGENCY FIRE DISPATCH

In November 2019, Dakota 911 implemented Emergency Fire Dispatch (EFD). EFD is a partner program to Emergency Medical Dispatch (EMD), EFD brings use of structured protocols to the fire-rescue field. Dakota 911 staff use this protocol to gather and prioritize incoming calls, address scene safety, and initiate a response, which includes pre-arrival directions to callers. This provides a consistent call-taking process for dispatchers since many fire incidents are considered high risk/low frequency. Previously there was no standardized process to determine call type, which lead to dispatcher interpretation or preference on which protocol to determine the recommended units.

NON-EMS CALLS

The next set of analysis evaluated all non-EMS related incidents. This broadens the view to include fire alarms, gas leaks and other service-related incidents that did not require an EMS response. The analysis shows all 2,358 2024 non-EMS related incidents for service. Incidents are categorized into incident type categories established by the National Fire Incident Reporting System (NFIRS).

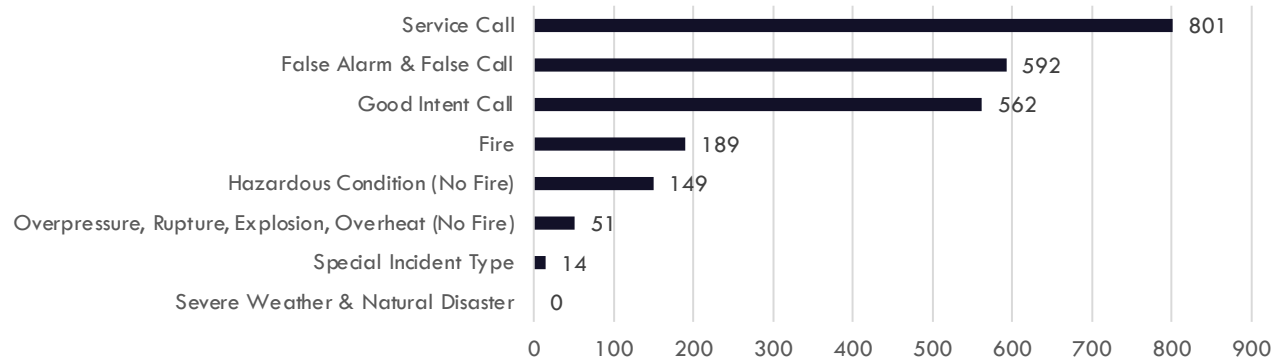
Of those 2,358 non-EMS calls for service, 1,062 were considered emergent within the City of Burnsville. The Burnsville Fire Department responded to over 90% of those calls (965) in 9 minutes or less. Figure 94 shows the breakdown.

Figure 94: Fire Response Time – emergent only, no mutual aid, cancelled or exposures

System Response Time	Number of Incidents	Percent of Incidents	90.87% of fire calls for service were responded to in 9 minutes or less
≤ 2 Minutes	10	0.94%	
2.01-3 Minutes	21	1.98%	
3.01-4 Minutes	67	6.31%	
4.01-5 Minutes	164	15.44%	
5.01-6 Minutes	213	20.06%	
6.01-7 Minutes	218	20.53%	
7.01-8 Minutes	183	17.23%	
8.01 -9 Minutes	89	8.38%	
> 9.01 Minutes	97	9.13%	

Service calls account for the greatest number of non-EMS related incidents and severe weather/natural disasters are the least. Many of the service calls are related to lift assists of residents who don't have injuries but need assistance. August was the busiest month for non-EMS-related incidents with 245 requests while February was the least busy with 159 requests. The busiest time of day is 6:00 p.m. with 150 calls for service while the least busy times are 1:00 a.m. and 4:00 a.m., with both having 43 requests for service.

Figure 95: Non-EMS Incidents by Category 2024



Non-EMS Incidents by Month Category 2024

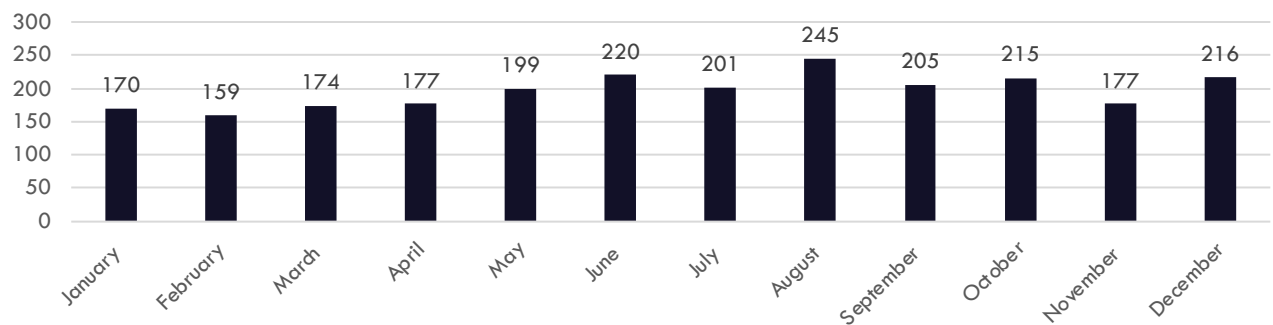


Figure 96: Non-EMS Incidents by Category and Month 2024

Incident Type Category	9 - Special Incident Type Calls	0	1	3	0	2	2	0	1	2	2	1	0
	8 - Severe Weather & Natural Disaster Calls	0	0	0	0	0	0	0	0	0	0	0	0
	7 - False Alarm & False Calls	40	42	43	50	41	58	45	72	53	47	48	53
	6 - Good Intent Calls	30	44	50	41	46	60	44	50	57	46	46	48
	5 - Service Calls	77	53	51	61	73	62	72	82	62	69	59	80
	4 - Hazardous Condition Calls	7	7	7	13	13	19	17	18	10	17	10	11
	2 - Overpressure Rupture, Explosion, Overheat Calls	6	5	2	2	5	3	9	4	2	3	5	5
	1 - Fires	10	7	18	10	19	16	14	18	19	31	8	19
		January	February	March	April	May	June	July	August	September	October	November	December

Figure 97: Non-EMS Incidents Day of Week 2024

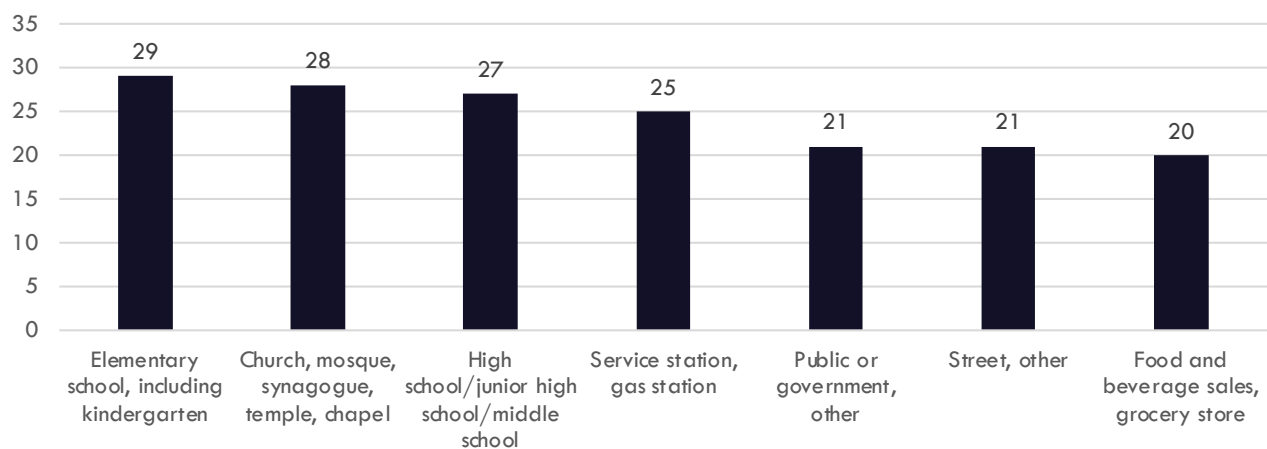


Figure 98: Non-EMS Incidents by Hour of Day 2024

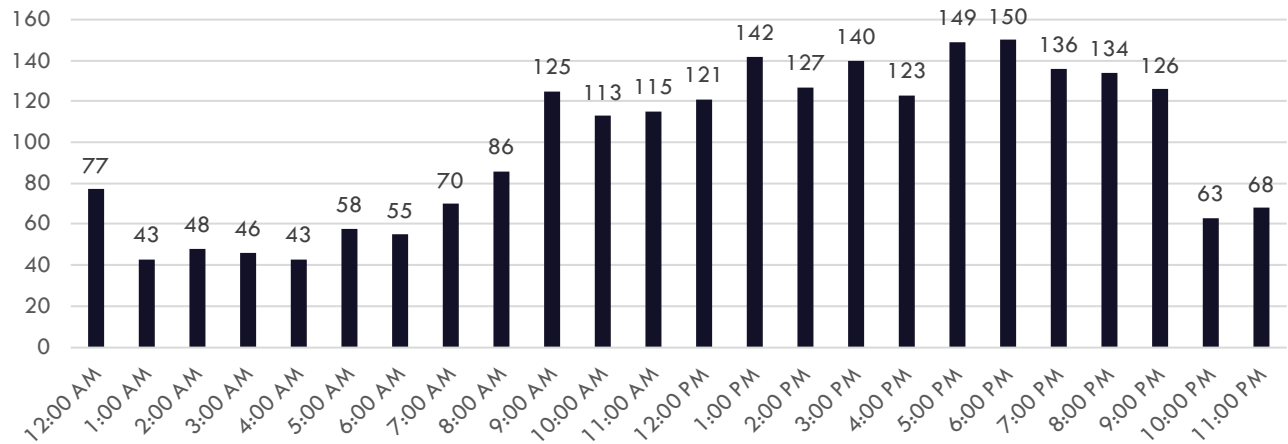


Figure 99: Non-EMS Incidents by Primary Station 2024



Figure 100: Non-EMS Incidents by Apparatus 2024

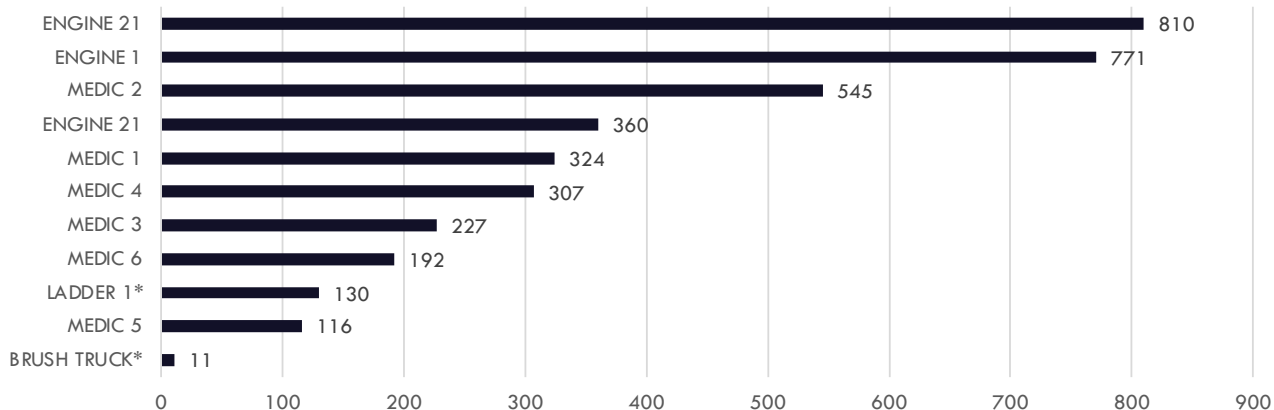


Figure 101: Non-EMS Incidents by Category and Call Processing Time 2024

Incident Type Category	Count of Incidents	Call Processing Time 90th Percentile (PSAP to Dispatch)
Fire (within the City of Burnsville)	139	00:02:15
Overpressure Rupture, Explosion, Overheat (No Fire)	51	00:02:18
Hazardous Condition (No Fire)	147	00:02:19
Service Call	787	00:02:38
Good Intent Call	419	00:02:27
False Alarm & False Call	589	00:02:07
Severe Weather & Natural Disaster	0	00:01:50
Special Incident Type	14	00:01:50

The tables below show the response time data in both averages and 90th percentile. The average time shows the middle of the time segment, e.g. half of the residents would receive a faster response and half would receive a slower response than the average. The 90th percentile shows a more inclusive and reliable performance measure so that 9 out of 10 residents would receive that response time or faster, leaving only 10 percent of the response that would be longer than the 90th percentile.

Figure 102: Non-EMS Response Performance by Unit - Averages 2024³

Unit	Count of Incidents	Turnout Time (Dispatch to En Route)	Travel Time (Enroute to Arrival)	Total Response Time (Dispatch to Arrival)	Scene time (Arrival to Cleared)	Total Time on Task (Dispatch to Cleared)
Brush 2*	8	0:02:38	0:04:09	0:06:56	0:10:50	0:13:40
Engine 1	313	0:01:30	0:03:34	0:05:32	0:21:54	0:25:27
Engine 2	379	0:01:27	0:03:18	0:05:18	0:23:01	0:24:01
Engine 21	154	0:01:29	0:03:32	0:05:57	0:24:33	0:26:29
Ladder 1*	91	0:01:48	0:03:16	0:07:17	0:46:33	0:41:40
Medic 1	187	0:01:32	0:03:33	0:05:34	0:24:10	0:20:54
Medic 2	284	0:01:31	0:03:26	0:05:16	0:19:57	0:15:47
Medic 3	114	0:01:22	0:03:38	0:05:44	0:20:51	0:15:39
Medic 4	161	0:01:23	0:03:24	0:05:30	0:22:29	0:18:48
Medic 5	63	0:01:42	0:03:39	0:05:49	0:24:12	0:21:06
Medic 6	108	0:01:31	0:03:23	0:05:17	0:25:03	0:21:55

³*Cross-Staffed Vehicle.

Times filtered out: Dispatch to En Route less than 10 seconds or over 10 minutes, Travel time over 30 minutes

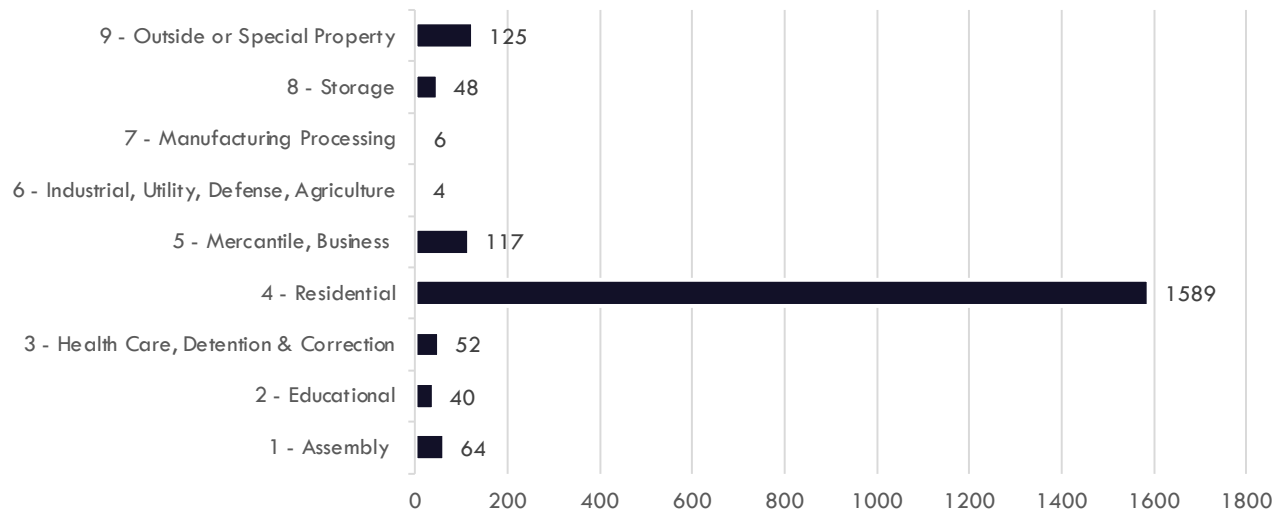
Figure 103: Non-EMS Response Performance by Unit - 90th Percentiles 2024⁴

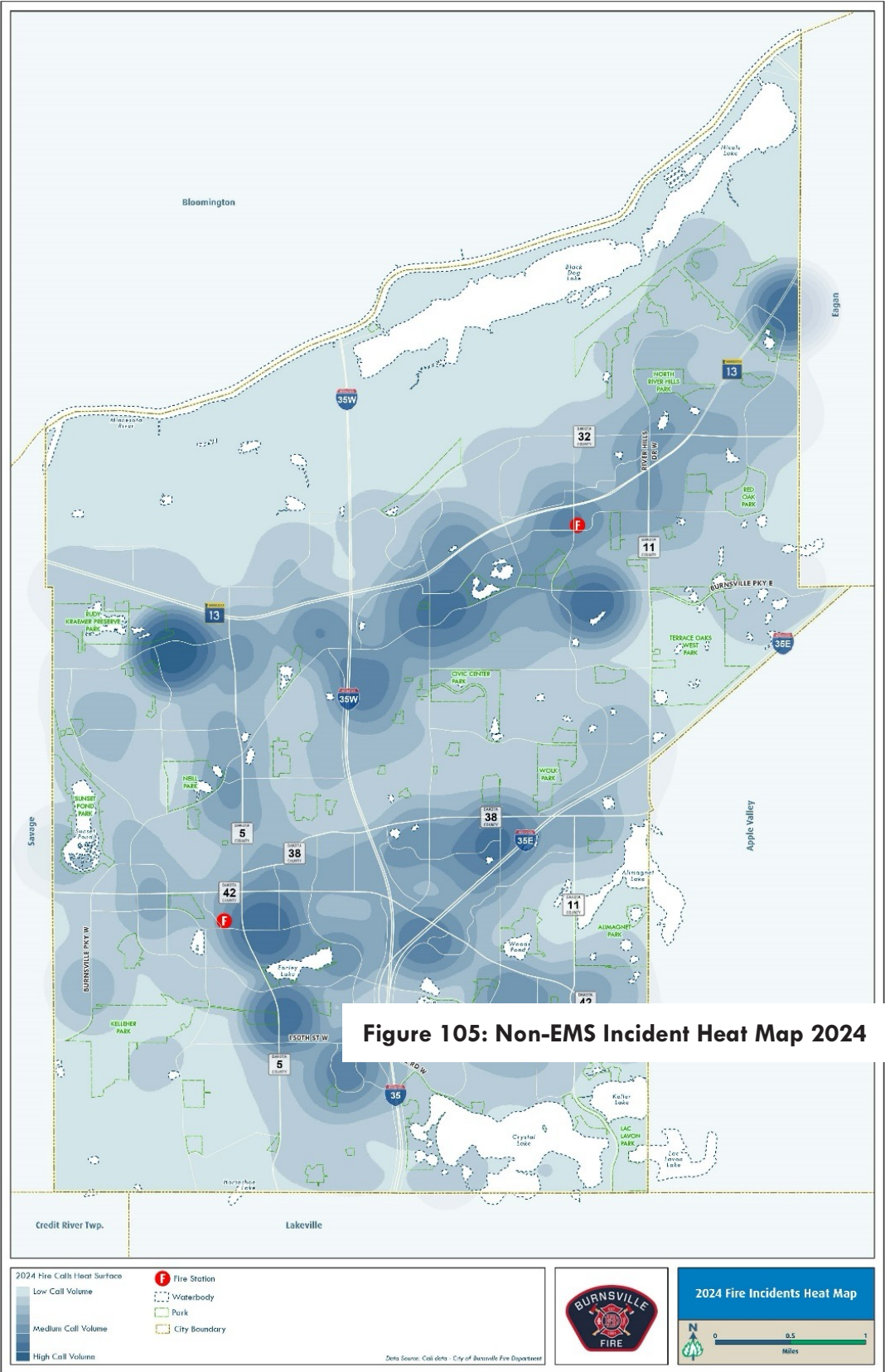
Unit	Count of Incidents	Turnout Time (Dispatch to En Route)	Travel Time (Enroute to Arrival)	Total Response Time (Dispatch to Arrival)	Scene time (Arrival to Cleared)	Total Time on Task (Dispatch to Cleared)
Brush 2*	8	0:03:31	0:05:58	0:10:03	0:16:12	0:23:47
Engine 1	313	0:02:11	0:05:13	0:07:33	0:48:16	0:51:09
Engine 2	379	0:02:07	0:05:14	0:07:55	0:45:57	0:43:40
Engine 21	154	0:02:06	0:05:36	0:08:05	0:53:30	0:50:24
Ladder 1*	91	0:02:22	0:05:07	0:09:06	1:41:55	1:28:37
Medic 1	187	0:02:22	0:05:27	0:08:05	0:44:36	0:31:10
Medic2	284	0:02:20	0:05:10	0:07:52	0:36:48	0:26:34
Medic 3	114	0:01:53	0:05:16	0:08:01	0:45:53	0:31:30
Medic 4	161	0:02:07	0:05:24	0:07:34	0:51:15	0:29:49
Medic 5	63	0:02:21	0:05:20	0:07:55	1:08:24	0:34:17
Medic 6	108	0:02:14	0:05:00	0:07:35	0:45:20	0:34:00

⁴*Cross-Staffed Vehicle.

Times filtered out: Dispatch to En Route less than 10 seconds or over 10 minutes, Travel time over 30 minutes

Figure 104: Non-EMS Incidents by Property Use 2024

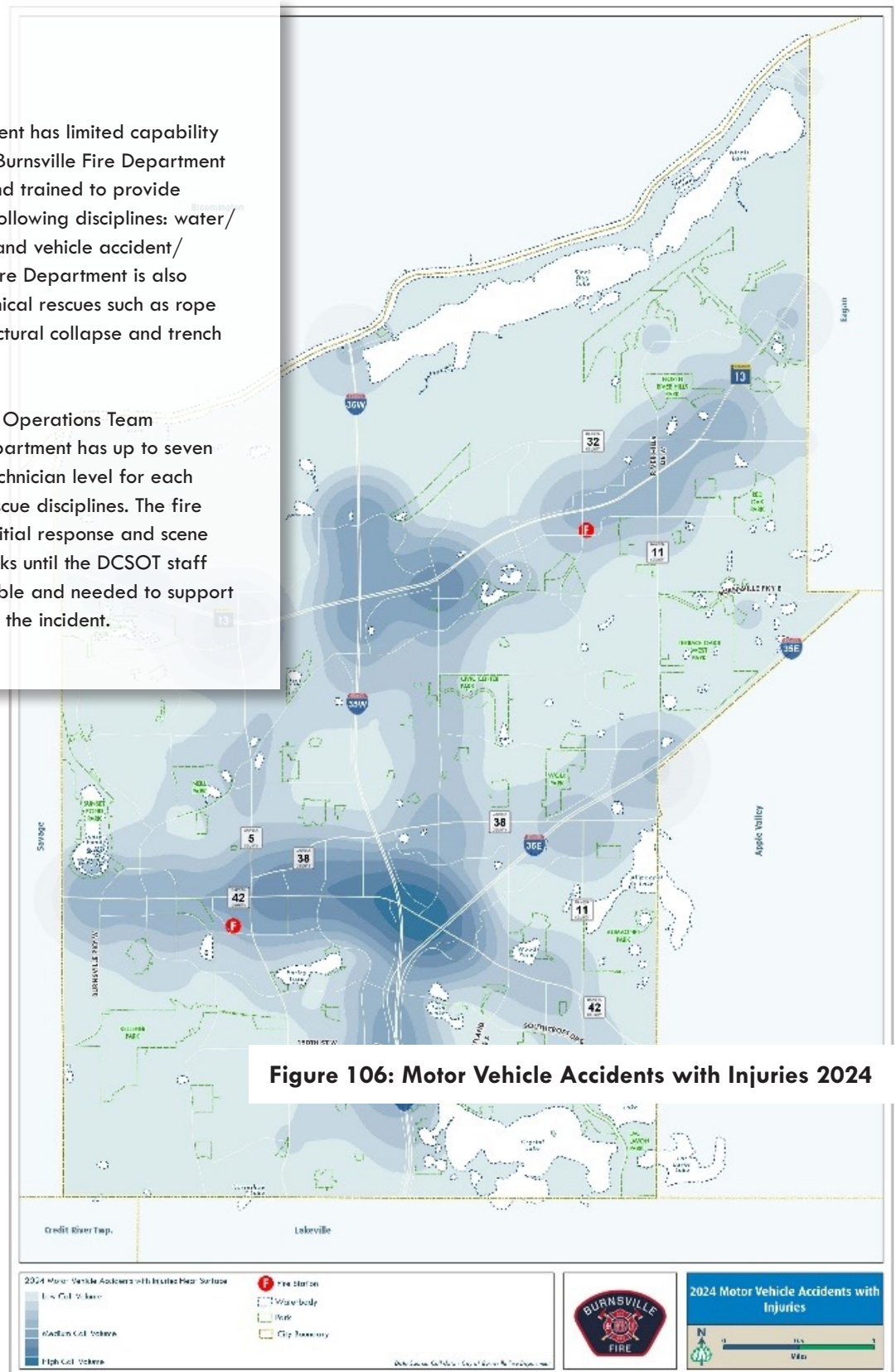




RESCUE

The Burnsville Fire Department has limited capability for specialty rescue(s). The Burnsville Fire Department is the primary responder and trained to provide victim extrication from the following disciplines: water/ice rescue, elevator rescue and vehicle accident/extrication. The Burnsville Fire Department is also the first responder for technical rescues such as rope rescue, confined space, structural collapse and trench rescue situations.

The Dakota County Special Operations Team (DCSOT), which the fire department has up to seven staff on, is trained to the technician level for each of the above-mentioned rescue disciplines. The fire department is able to do initial response and scene safety operational level tasks until the DCSOT staff arrive. The department is able and needed to support the DCSOT staff throughout the incident.



HAZARDOUS MATERIALS

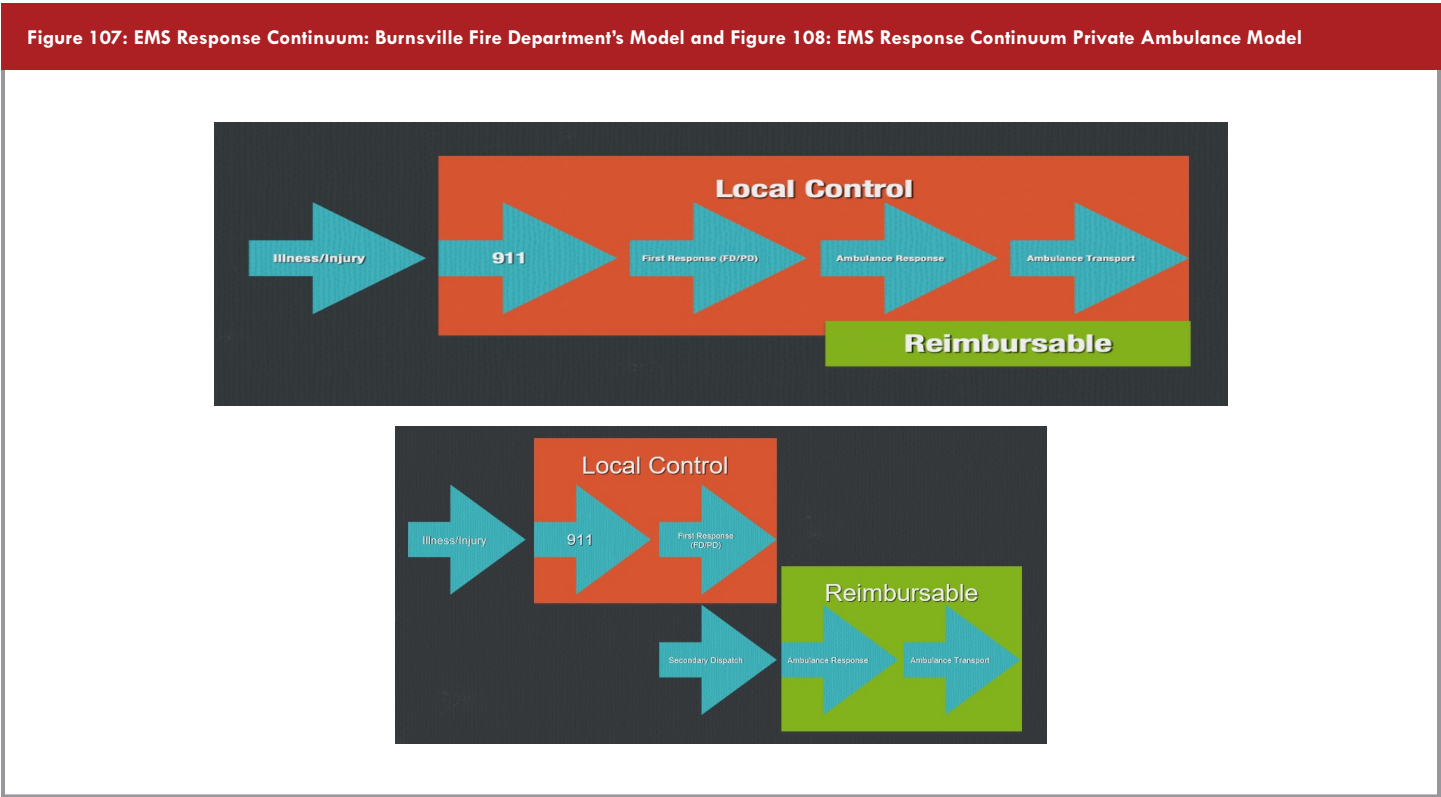
The Burnsville Fire Department is trained at the operational level for hazardous materials which allow the department to handle low acuity hazmat incidents such as carbon monoxide alarms and natural gas leaks. More significant incidents such as leaking containers of chemicals require more technical expertise, which the Burnsville Fire Department uses the Dakota County Special Operations Team (DCSOT). The Burnsville Fire Department can cordon off the area, isolate the chemical when possible and treat any victims that are removed from the hazardous environment until the DCSOT arrives with further expertise to mitigate the situation.

EMERGENCY MEDICAL SERVICE (EMS)

The Burnsville Fire Department provides advanced life support ambulance service to the community. In 2024, the Burnsville Fire Department consists of 53 Paramedics and three Emergency Medical Technicians.

EMS is the lion's share of the Burnsville Fire Department's emergency calls for service. The integrated approach to emergency medical services provides a streamlined high-quality service to the community. Medical calls for service are triaged by Dakota 911 and staff are sent on the severity of the patient. By integrating and streamlining the service, the Burnsville Fire Department sends only ambulances on many of the medical calls for service.

Deploying resources based on the likely needs for each incident keeps fire apparatus and police resources more available to the community for other needs. Many other communities without an integrated approach send police and/or fire resources to all medicals in addition to an external agency providing the ambulance. The Burnsville Fire Department's multi-disciplined approach maximizes the use of its staff across the fire and EMS disciplines, maximizing the use of its capacity. The provision of EMS within the community also affords the opportunity for reimbursement for services provided which helps offset the cost of providing the service.

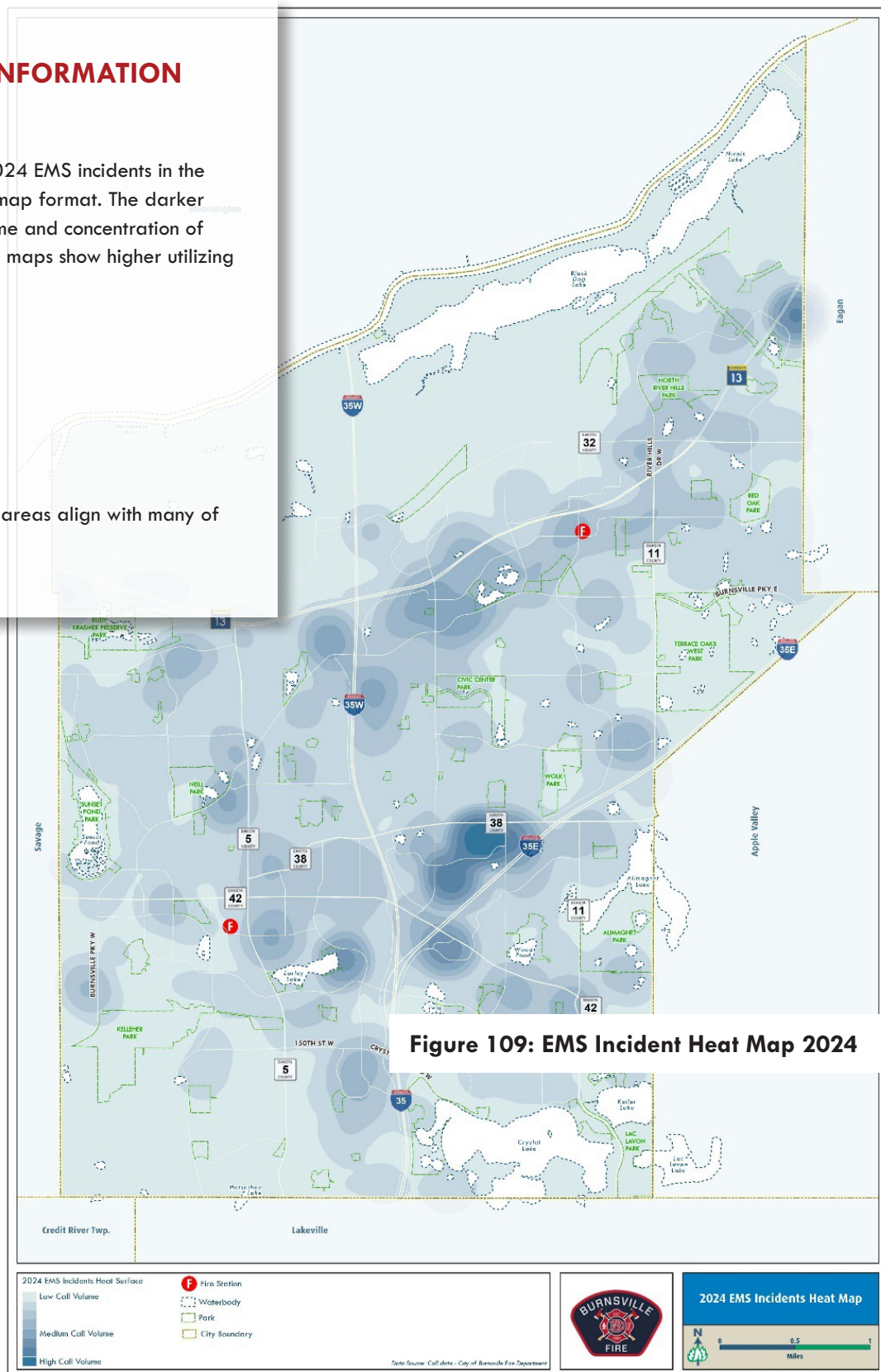


EMS STATISTICAL INFORMATION (2024)

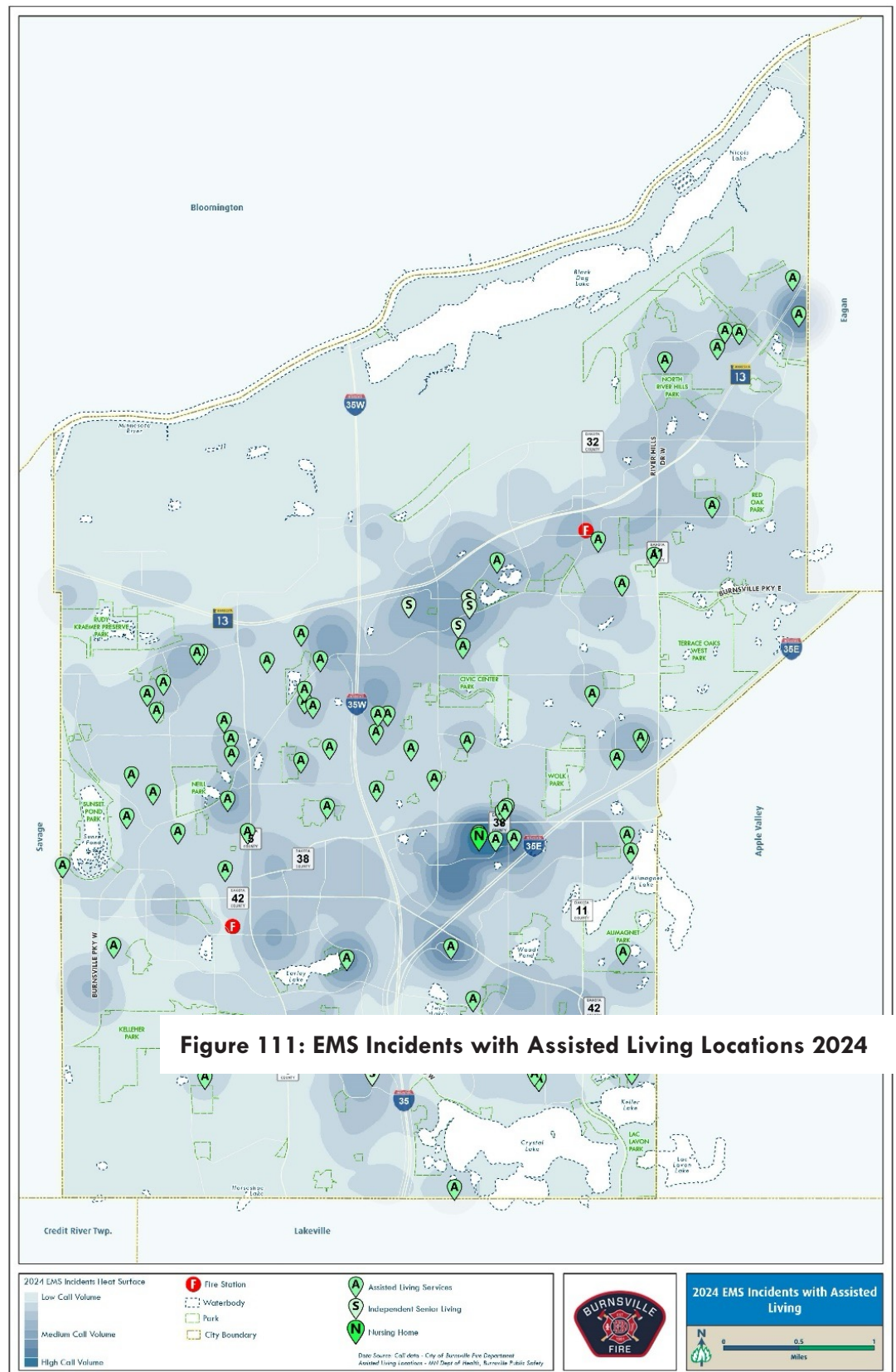
The following maps show 2024 EMS incidents in the City of Burnsville in a heat map format. The darker blue represents higher volume and concentration of EMS incidents. The following maps show higher utilizing property types:

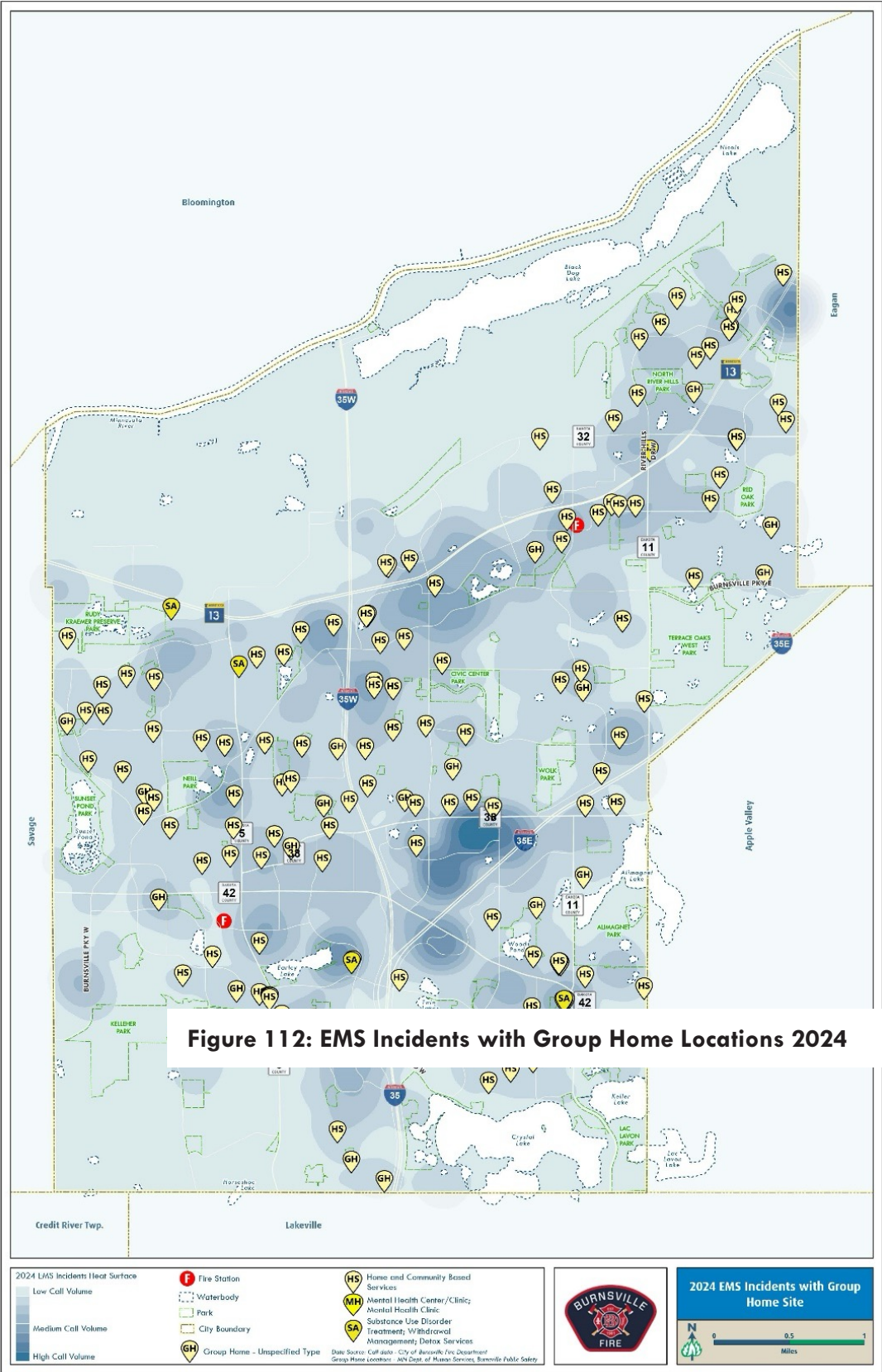
- Clinics
- Assisted Living
- Group Home
- Rental License
- Facilities of Interest

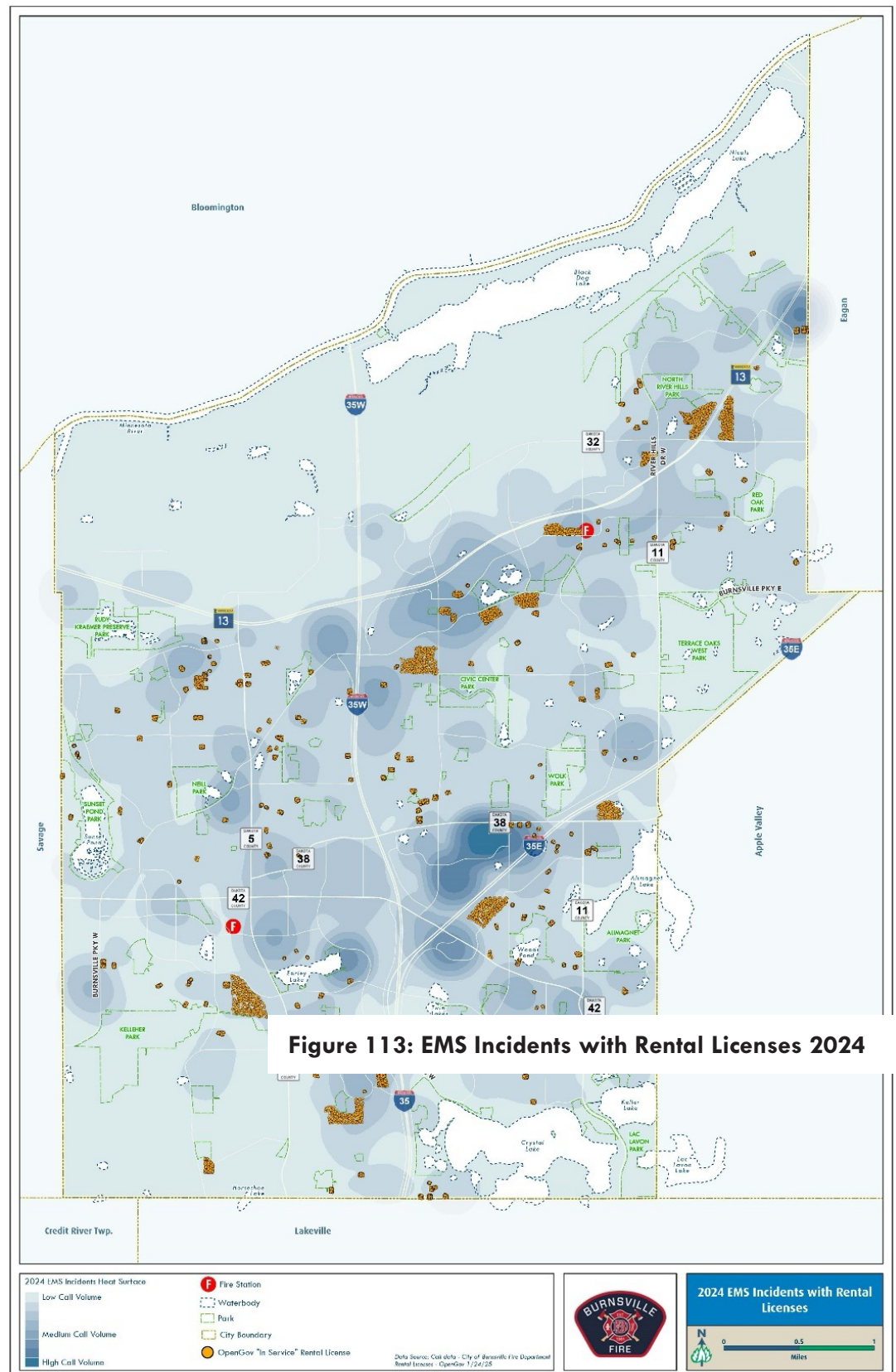
A number of the deep blue areas align with many of the properties of interest.









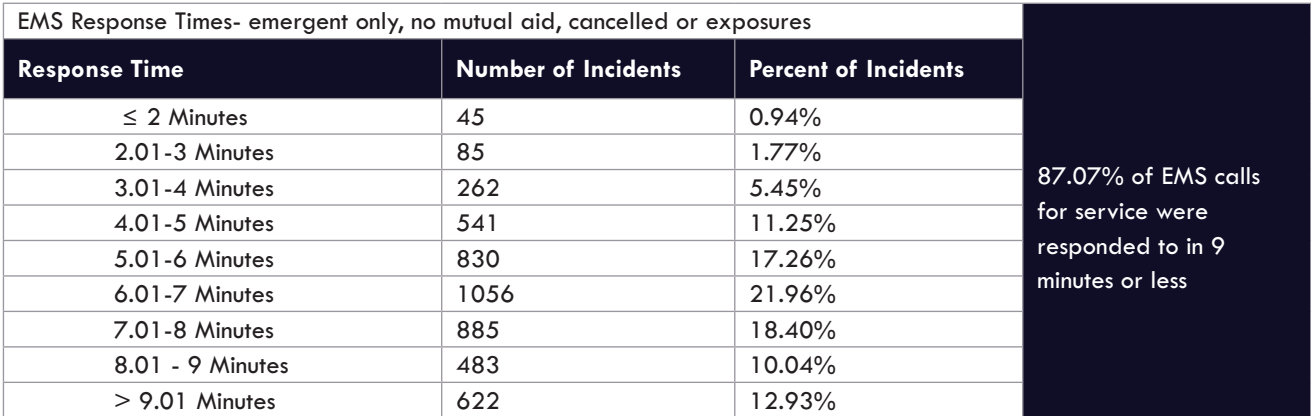




SERVICES PROVIDED

The Burnsville Fire Department responded to 7,470 EMS calls for service in 2024. Of those EMS calls, 4,809 were considered emergent within the City of Burnsville. The Burnsville Fire Department responded to over 87% of those calls (4187) in 9 minutes or less. Figure 115 shows the breakdown. There were 7,048 EMS incidents within the City of Burnsville, emergent and non-emergent. The Burnsville Fire Department responded to other cities 422 times to provide mutual aid. Of those 7,048 EMS incidents within the City of Burnsville, mutual aid was received 589 times.

Figure 115: EMS Response Time – emergent only, no mutual aid, cancelled or exposures



These charts break down the incidents within the City of Burnsville by month, day of week and hour of day to determine patterns and assist in analyzing risk established by the demand for service. December was the busiest month with 657 EMS incidents and February was the least busy with 557 EMS incidents. Sunday was the least busy day, while Monday was the busiest day for EMS incidents. 10:00 a.m. was the busiest time of day while 3:00 a.m. and 4:00 a.m. tied for the least busy.

Figure 116: EMS Incidents by Month 2024

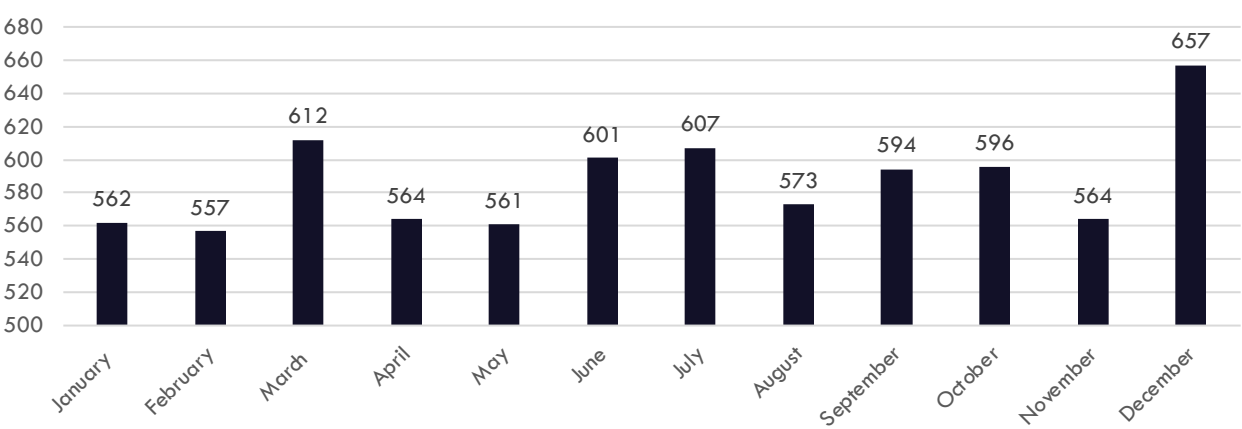


Figure 117: EMS Incidents by Day of Week 2024

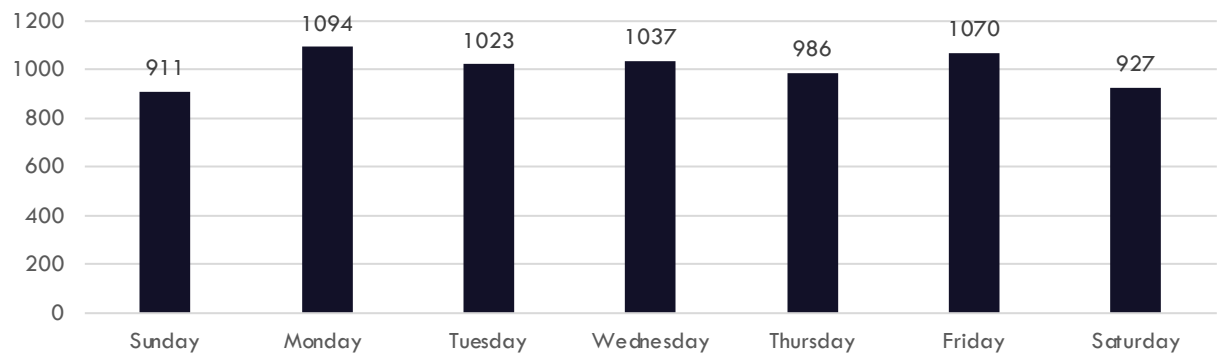


Figure 118: EMS Incidents by Hour of Day 2024

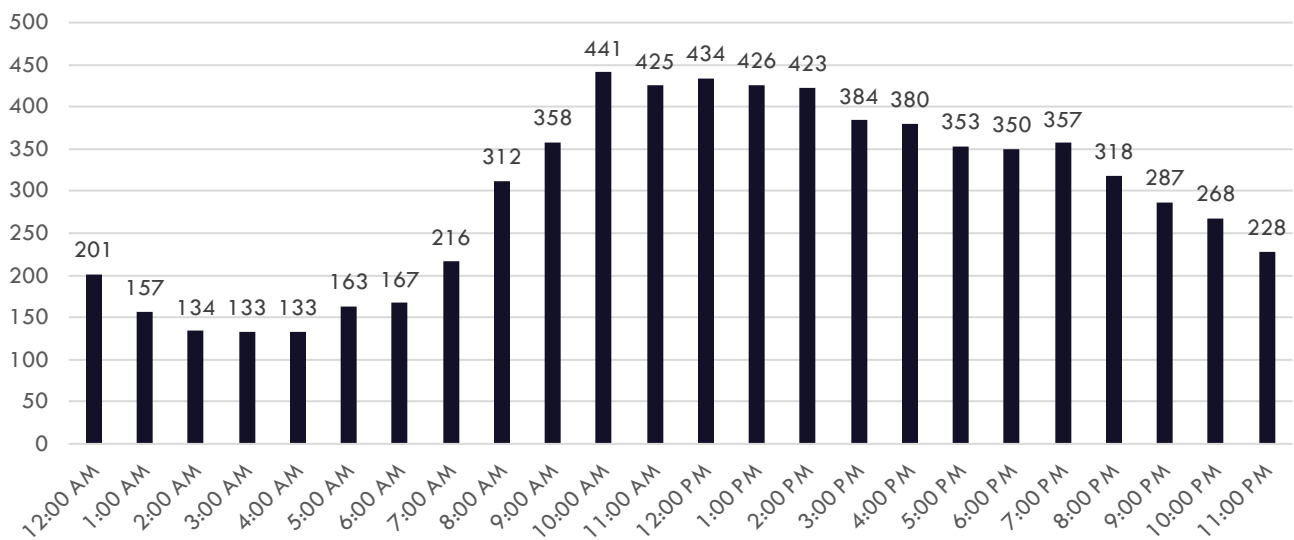


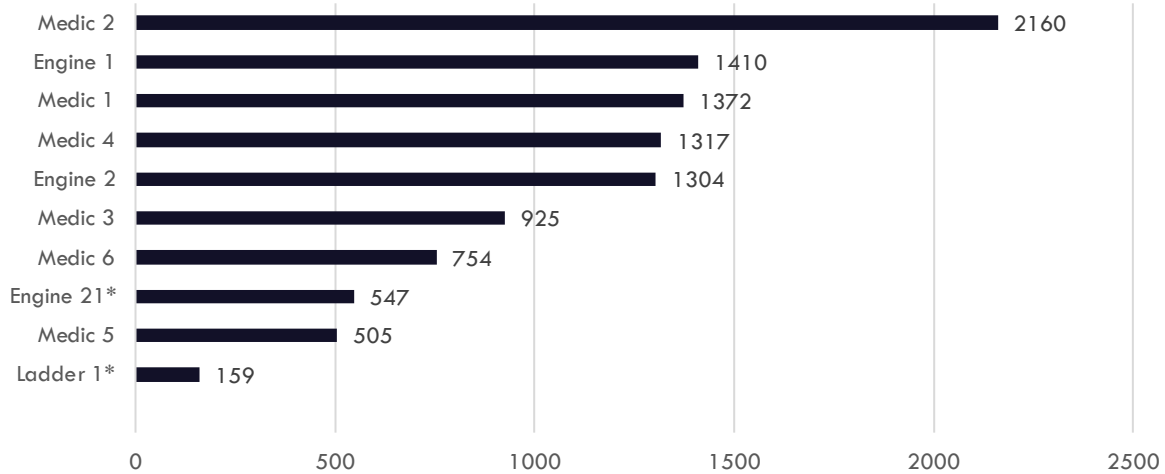
Figure 119: EMS Incidents by Hour and Day of Week 2024

Sunday	34	33	27	18	18	36	25	32	35	36	46	43	54	39	44	36	61	47	46	52	40	47	37	25
Monday	34	25	16	22	25	27	24	35	47	61	71	66	69	61	63	69	52	68	49	55	42	37	33	43
Tuesday	20	14	9	18	20	24	30	31	46	63	69	60	65	70	81	57	60	50	48	48	42	31	36	31
Wednesday	21	19	20	20	19	12	27	32	47	52	62	68	55	77	68	61	56	42	57	48	46	48	46	34
Thursday	26	18	22	14	18	23	25	26	50	51	65	69	63	61	63	52	45	38	50	42	55	41	40	29
Friday	35	24	27	20	16	25	21	32	44	59	79	68	84	67	56	61	54	52	44	53	45	39	32	33
Saturday	31	24	13	21	17	16	15	28	43	36	49	51	44	51	48	48	52	56	56	59	48	44	44	33
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM

Figure 120: Response Performance by Primary Station 2024

Primary Station Name	Counts of Incidents	Call Processing Time 90th Percentile (PSAP to Dispatch)
Fire Station 1	4395	00:02:45
Fire Station 2	2644	00:02:43
Fire Administration	9	00:03:00

Figure 121: EMS Response by Apparatus 2024⁵



⁵*Cross-Staffed Vehicle.

Figure 122: EMS Response Performance by Unit – Averages⁶

Unit	Vehicle Movements	Turnout Time (Dispatch to En Route)	Travel Time (Enroute to Arrival)	Total Response Time (Dispatch to Arrival)	Scene Time (Arrival to Cleared)	Total Time on Task (Dispatch to Cleared)
Medic 1	1109	0:01:17	0:04:48	0:06:06	0:30:58	0:35:48
Medic 2	1853	0:01:14	0:04:20	0:05:34	0:31:30	0:36:06
Medic 3	726	0:01:12	0:04:55	0:06:07	0:32:06	0:36:44
Medic 4	1041	0:01:13	0:04:59	0:06:12	0:31:13	0:36:01
Medic 5	418	0:01:16	0:04:59	0:06:16	0:31:31	0:36:03
Medic 6	649	0:01:12	0:04:06	0:05:18	0:32:54	0:37:14
Engine 1	1199	0:01:26	0:04:10	0:05:36	0:12:46	0:17:02
Engine 2	1111	0:01:18	0:03:52	0:05:10	0:14:14	0:18:09
Engine 21*	469	0:01:22	0:03:59	0:05:22	0:12:47	0:16:49
Ladder 1*	121	0:01:19	0:04:25	0:05:44	0:11:33	0:16:06
Grand Total	8696	0:01:17	0:04:26	0:05:43	0:25:41	0:29:57

⁶*Cross-Staffed Vehicle; Times filtered out: Dispatch to En Route less than 10 seconds or over 10 minutes, Travel time over 30 minutes

Figure 123: EMS Response Performance by Unit – 90th Percentiles⁷

Unit	Vehicle Movements	Turnout Time (Dispatch to En Route)	Travel Time (Enroute to Arrival)	Total Response Time (Dispatch to Arrival)	Scene Time (Arrival to Cleared)	Total Time on Task (Dispatch to Cleared)
Medic 1	1109	0:02:02	0:07:18	0:08:40	0:54:38	0:59:45
Medic 2	1853	0:01:55	0:06:58	0:08:16	0:54:49	0:59:57
Medic 3	726	0:01:46	0:07:33	0:08:51	0:57:57	1:03:28
Medic 4	1041	0:01:53	0:07:40	0:09:05	0:55:22	1:00:45
Medic 5	418	0:01:58	0:07:49	0:09:08	0:56:02	1:01:17
Medic 6	649	0:01:53	0:06:27	0:07:48	0:53:56	0:58:35
Engine 1	1199	0:02:13	0:05:54	0:07:31	0:20:43	0:26:03
Engine 2	1111	0:01:59	0:06:07	0:07:30	0:22:28	0:27:29
Engine 21*	469	0:02:09	0:05:44	0:07:16	0:20:23	0:25:31
Ladder 1 *	121	0:02:05	0:06:17	0:07:47	0:19:46	0:26:06
Grand Total	8696	0:02:00	0:06:57	0:08:19	0:49:11	0:53:51

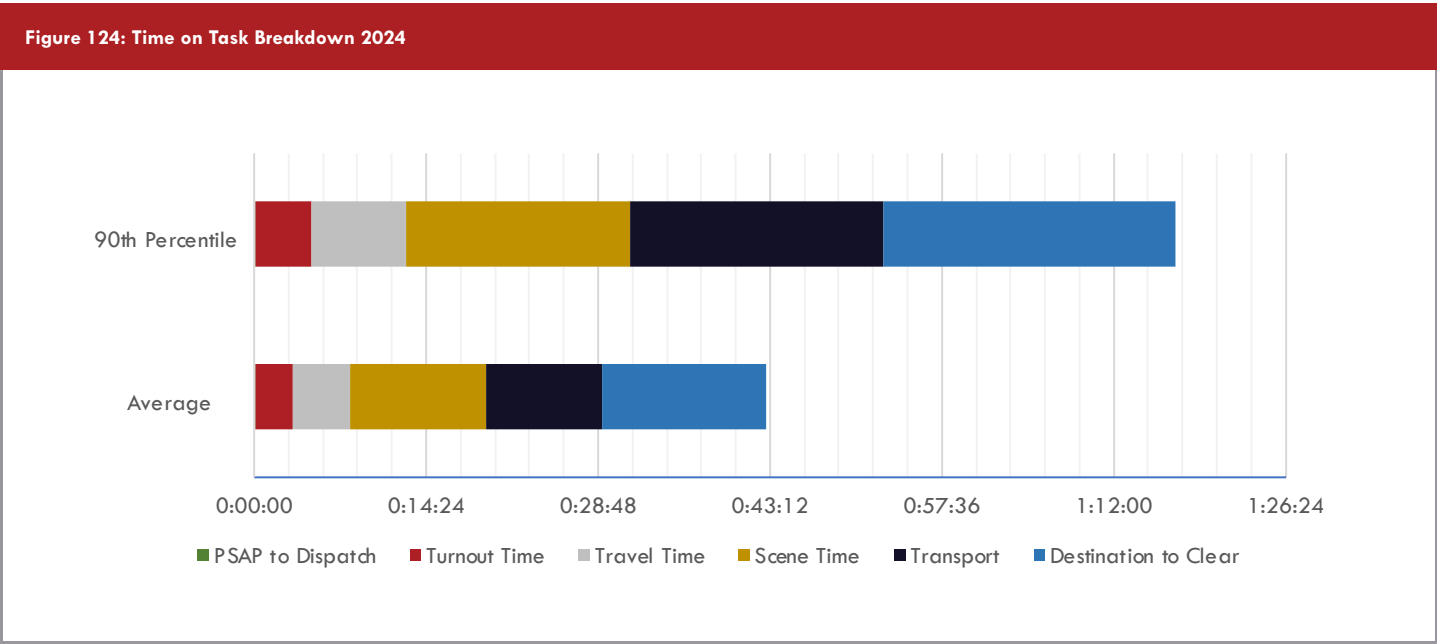
⁷*Cross-staffed Vehicle; Times filtered out: Dispatch to En Route less than 10 seconds or over 10 minutes, Travel time over 30 minutes

The dispatch processing time includes the use of the Priority Dispatch Emergency Medical Dispatch (EMD) triage system by Dakota 911. EMD uses scripted questions to prioritize the calls for service, provide the caller pre-arrival instructions if necessary, and assist the Burnsville Fire Department in sending the appropriate number and type of resource to assist the caller with their emergency.

BELOW IS A BREAKDOWN OF THE TIME ON TASK:

- PSAP to the dispatch time measures from the 9-1-1 call until the emergency responders are notified.
- Turnout time measures the time the emergency responders are notified until the responders are in their unit moving towards the incident.
- Travel time measures from when the emergency responders start driving towards the incident until they arrive at the incident location (outside of the building if the emergency is in a building).
- Scene time is from the arrival time until the unit leaves the incident scene.
- Transport time is from the time of leaving the scene until arriving at the hospital.
- Destination to clear is time from the emergency responders arriving at the hospital until they are available for another call for service.

Additional unaccounted for staff time with every call is the amount of time required to finish documentation of both the EMS report and the fire report, as well as time to restock and decontaminate the truck. All these periods of time make up the time on task for EMS incidents. If the patient is not transported, then the transport time and destination to clear are not applicable for that specific incident.



One of the biggest factors that affects a crew’s overall time on task is the patient’s choice of the hospital destination. Patients are allowed to choose their destination facility. Some factors that can affect the patient’s choice can include a patient requesting the closest facility, patient having a pre-established care relationship within a hospital system, insurance in-network/out-of-network coverage, or the need for specialty care such as a stroke, trauma, or STEMI (heart attack) capable facility.

In 2024, most patients (79.92%) chose to go to Fairview Ridges Hospital in Burnsville, MN. This reduces transport time for the patient as well as overall turn-around time for crews. Transport to an out-of-town hospital increases the time from leaving the scene to clearing the call and available for the next call by two to four times depending on the destination.

Figure 125: Average Time Based on Hospital Destination 2024

Hospital	Left Scene to Arrived at Hospital	Arrived at Hospital to available for next call	Time from left scene to available for next call in	Percent of Transports	Number of Transports
FAIRVIEW RIDGES HOSPITAL - BURNSVILLE	00:06:47	00:10:49	00:17:37	79.92%	4406
FAIRVIEW SOUTHDAL E HOSPITAL - EDINA	00:17:41	00:20:26	00:38:07	3.97%	219
ABBOTT NORTHWESTERN HOSPITAL - MINNEAPOLIS	00:22:44	00:31:05	00:53:49	2.68%	148
METHODIST HOSPITAL - ST. LOUIS PARK	00:22:07	00:23:43	00:45:50	2.50%	138
HENNEPIN COUNTY MEDICAL CENTER	00:20:00	00:31:18	00:51:18	1.80%	99
VA MEDICAL CENTER - FORT SNELLING	00:21:39	00:20:07	00:41:47	1.76%	97
UNITED HOSPITAL - ST. PAUL	00:21:43	00:21:44	00:43:27	1.67%	92
REGIONS HOSPITAL - ST. PAUL	00:24:44	00:28:07	00:52:52	1.60%	88
ST. FRANCIS REGIONAL MEDICAL CENTER - SHAKOPEE	00:18:41	00:21:59	00:40:39	1.32%	73
CHILDREN'S HOSPITAL - MINNEAPOLIS	00:21:11	00:27:34	00:48:45	0.63%	35
FAIRVIEW RIVERSIDE HOSPITAL - MINNEAPOLIS	00:23:03	00:24:49	00:47:52	0.63%	35
FAIRVIEW UNIVERSITY MEDICAL CENTER - MINNEAPOLIS	00:27:45	00:27:26	00:55:11	0.63%	35
CHILDREN'S HOSPITAL - ST. PAUL	00:25:00	00:23:26	00:48:26	0.53%	29
UNIVERSITY OF MINNESOTA MASONIC CHILDREN'S	00:25:53	00:23:55	00:49:48	0.20%	11
NORTH MEMORIAL MEDICAL CENTER	00:27:12	00:34:14	01:01:26	0.07%	4
NORTHFIELD HOSPITAL	00:23:44	00:27:06	00:50:49	0.04%	2
REGINA HOSPITAL - HASTINGS	00:34:51	00:30:20	01:05:11	0.02%	1
ST. JOHN'S HOSPITAL - MAPLEWOOD	00:36:09	00:26:27	01:02:36	0.02%	1

Figure 126 below shows the longest time on task based on the primary impression of the patient, which is determined by the paramedic. Primary impression is the symptom, problem, or condition that is the reason for a medical encounter. Time on task can vary greatly if there is a need to transport out of town to a specialty center, which can be seen by the two longest times usually requiring transport to a specialized facility.

Figure 126: Longest Time on Task in Minutes by Primary Impression 2024

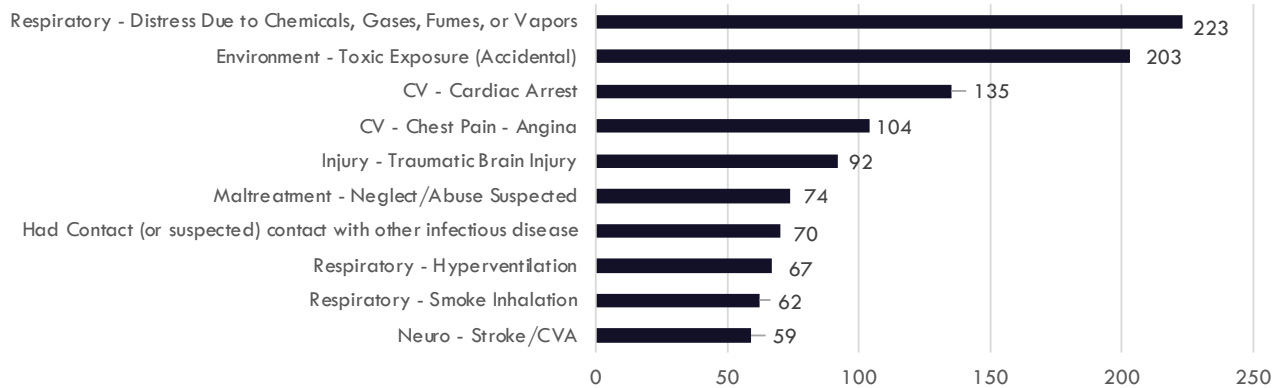


Figure 127: Top EMS Incident Property Use Category 2024

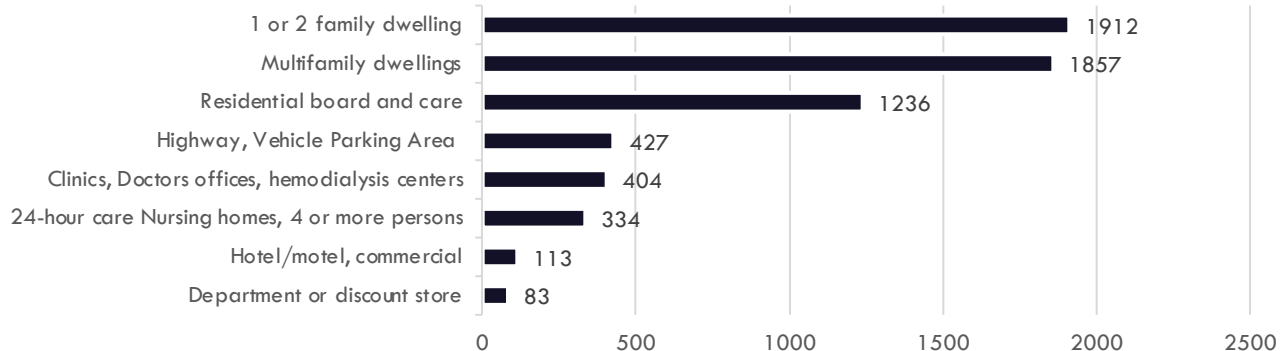
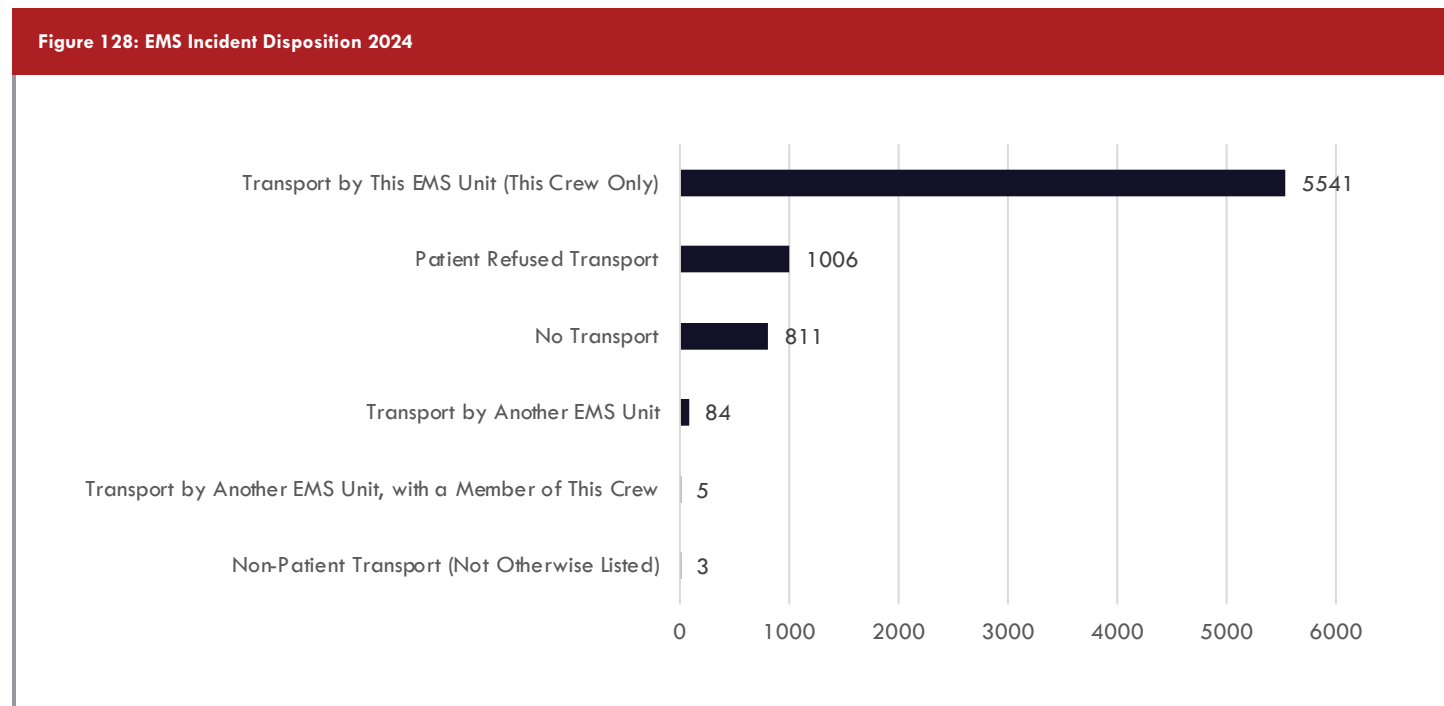


Figure 127 depicts the types of properties at which EMS incidents occur. Approximately eighty percent of EMS incidents occur at residential properties. Over a quarter of EMS incidents occur at multi-family dwellings. Multi-family housing presents additional challenges to EMS. Some of the additional challenges include gaining access to the building, proximity of the ambulance to the patient, presence or absence of an elevator that fits a stretcher, and stairs outside some buildings that limit access via stretcher. All of these considerations can be overcome, but the challenges require additional time on scene and the amount of resources available to help impacts the speed to access patients and the transition to get the patient safely back to the ambulance. This is magnified for critical patients.

Figure 128 shows the disposition of the patients. Most patients receive transportation to the hospital once an EMS call is received. There are instances where the patient does not require transport, or the patient refuses to be cared for or transported. The disposition treated, transferred care to other EMS agency refers to times when the Burnsville Fire Department sends an engine staffed with paramedics but does not have an available ambulance and requires a mutual aid ambulance for transport.



The following charts identify the top primary impressions and patient symptoms. The primary impression is identified by the paramedic attending to the patient, while the patient's symptoms are what is reported to the paramedic by the patient. It is not uncommon for the patient's identification of their symptoms to differ from what the paramedic identifies as the primary impression following an evaluation.

Figure 129: EMS Primary Impression 2024

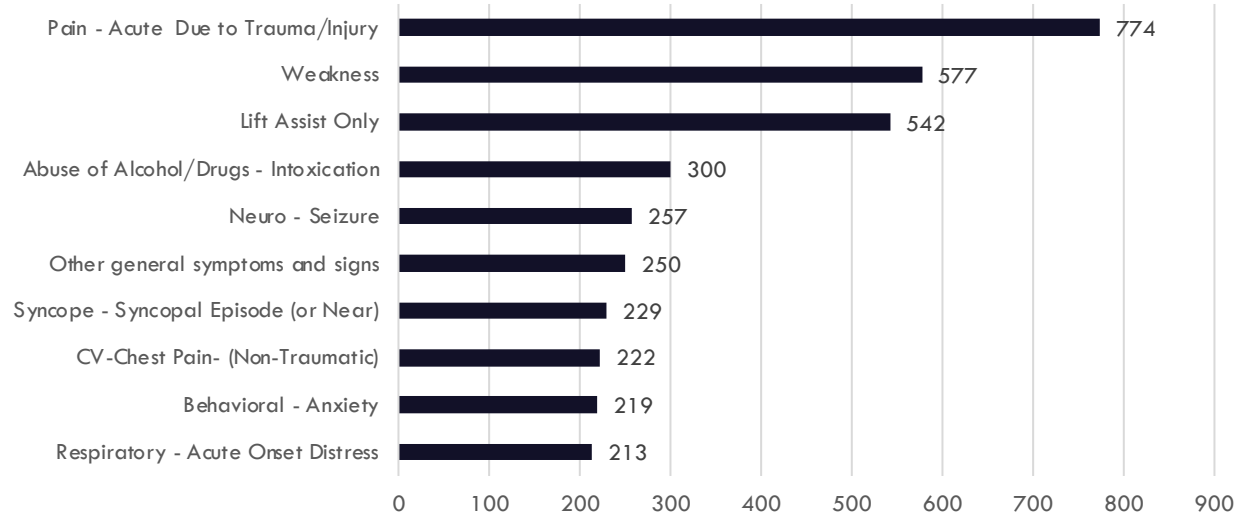
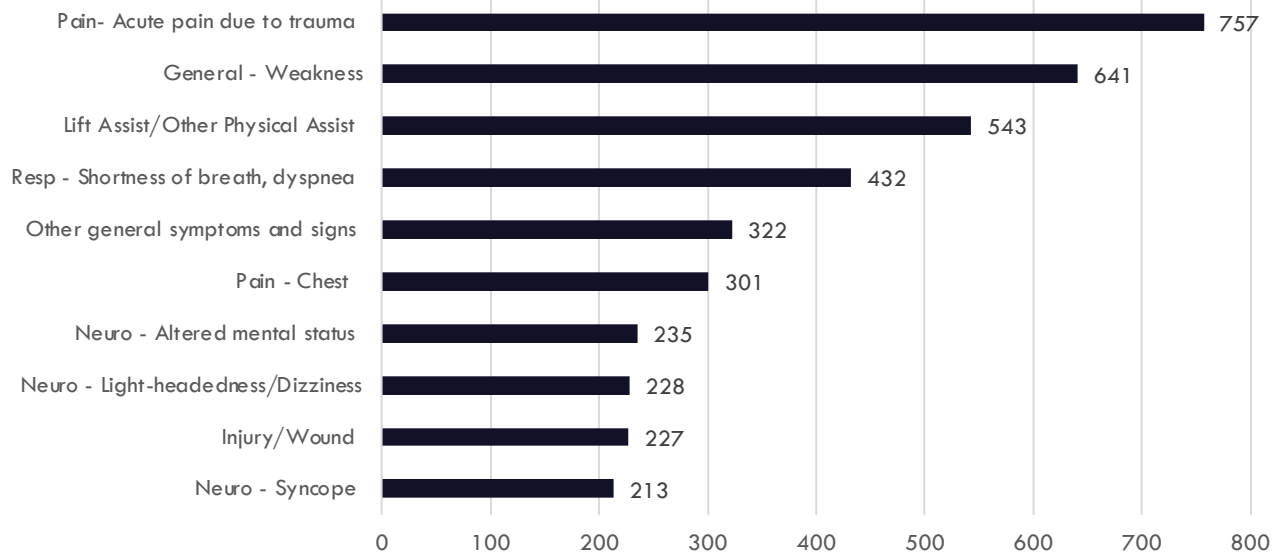


Figure 130: EMS Patient Primary Symptom 2024



SERVICES PROVIDED

Cardiac arrests are one of the most critical and time sensitive EMS incidents. In addition to police response, Burnsville Fire Department response to a cardiac arrest is generally 4-5 paramedics. This allows for multiple advanced life support (ALS) procedures to be done simultaneously. This contrasts with most ambulance services being afforded a minimum of one paramedic on scene, with their partner being either an EMT or additional paramedic and the remainder of responders having various levels of training/experience.

One unique feature with Burnsville Fire Department's response model including ALS engines is the ability of the engines to operate at the highest level of prehospital care independent of a paramedic ambulance availability—If all ambulances are on other calls for service, an engine crew can initiate paramedic level care prior to the arrival of a mutual aid ambulance.

Figure 131: Cardiac Arrest Survival Percentage Over Time^{xxii}

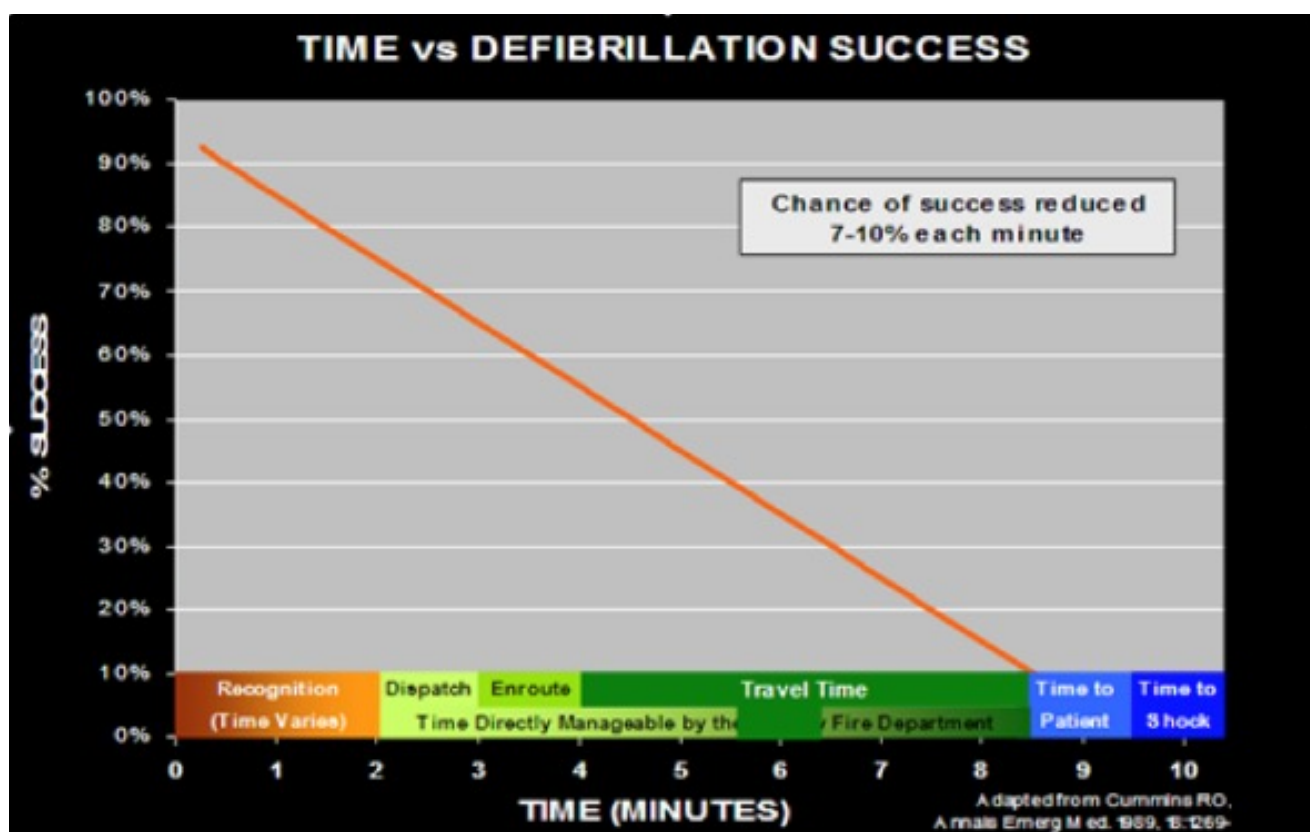
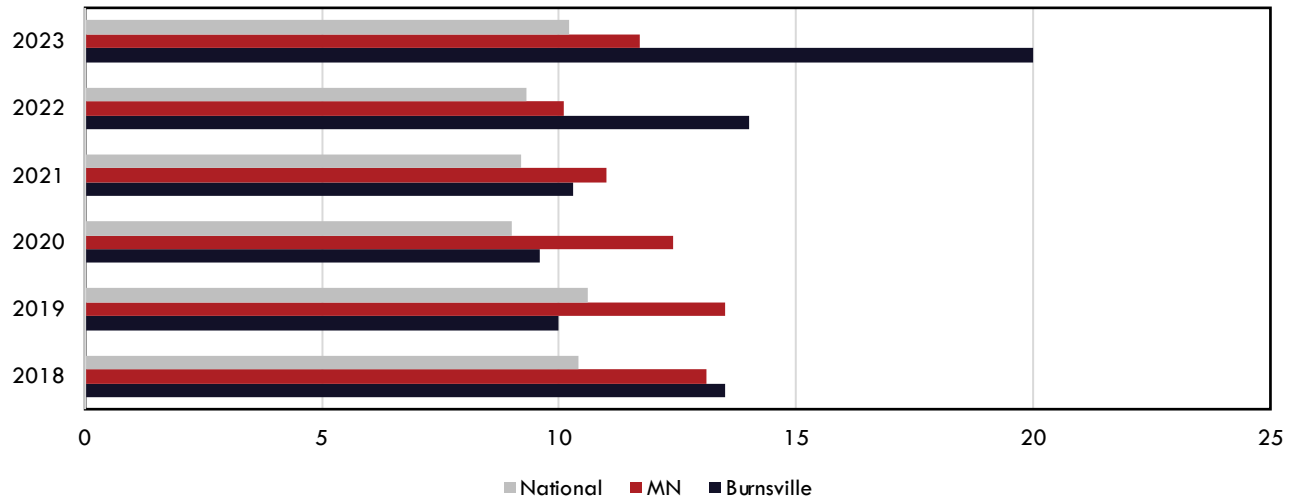


Figure 132: Cardiac Arrest Response Times and Comparison of Fire Utstein Survival Rates

	Count of Incidents	PSAP to Dispatch Average	PSAP to Dispatch 90 th Percentile	Travel Time Average (En Route to Arrival)	Travel Time 90 th Percentile (En Route to Arrival)
Cardiac Arrest-Confirmed by Primary Impression	48	00:01:21	00:02:39	00:04:24	00:06:42

Figure 133: Overall Survival to Hospital Discharge (Percentage)



In 2023, a total of 48 cardiac arrests were confirmed by the provider. Of those, over half (28) received no CPR prior to the arrival of EMS. Most of these patients (20) had an unwitnessed arrest which delays the recognition time and leads to worse outcomes.

Resuscitation efforts were attempted in 44/48 patients, with the others being considered beyond help or the patient had a valid Do Not Resuscitate order indicating their preference for no heroic interventions. Burnsville Fire Department transported 25/48 patients to the hospital and 14 of them had a return of spontaneous circulation while in the care of Burnsville Fire Department.

EMERGENCY MEDICAL DISPATCH

The figure below shows the Priority Dispatch Emergency Medical Dispatch (EMD) matrix. The dispatchers at Dakota 911 ask a series of questions to the 9-1-1 caller to determine the priority of the EMS call. The answers to the questions follow an algorithm to determine the call type and priority. Below is the EMD matrix. Calls are categorized into Omega, Alpha, Bravo, Charlie, Delta and Echo priorities.

The amount and type of resources are determined based on the call type, priority, and location. For example, an alpha level fall would receive an ambulance with two paramedics with non-emergent response (no lights and sirens) versus the other extreme of a cardiac arrest that would receive an ambulance with two paramedics, a fire engine with two to three firefighters and two police officers all responding emergently (with lights and sirens).

The location is also used to determine the response resources. For example, a chest pain call at an urgent care facility would only receive an ambulance with two paramedics, whereas; if that call occurred in a single-family home the ambulance would be accompanied by a fire engine with two to three firefighters. The patient at an urgent care is cared for by medical staff already, therefore less likely additional responders would be needed to assist with evaluating, treating and moving the patient.

Figure 134: Emergency Medical Dispatch Matrix^{xxiii}

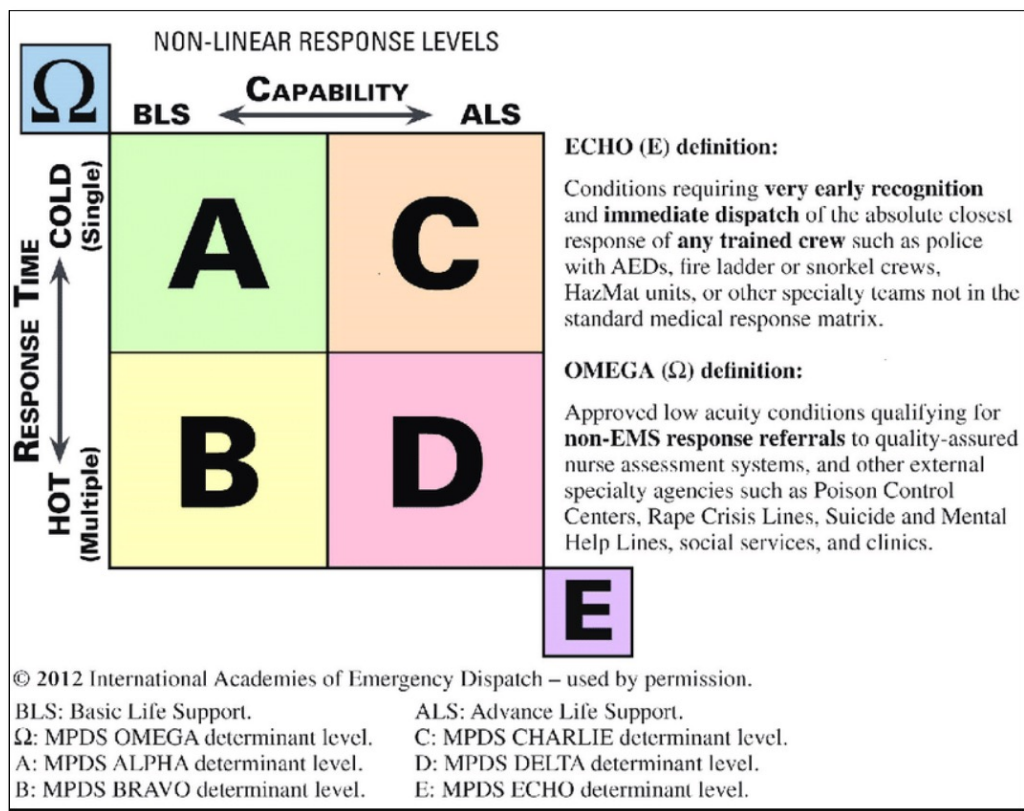


Figure 135: Dispatch Priority Code 2024

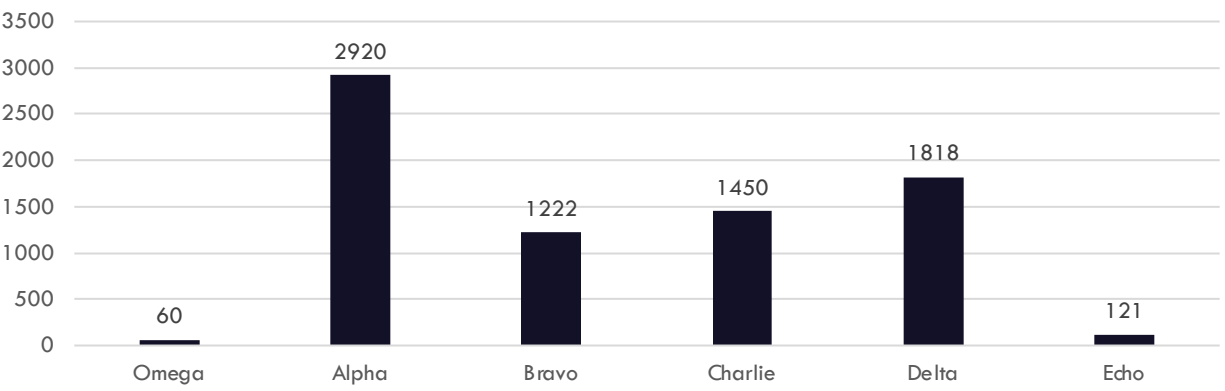


Figure 136: EMS Calls by EMD Acuity 2019-2024

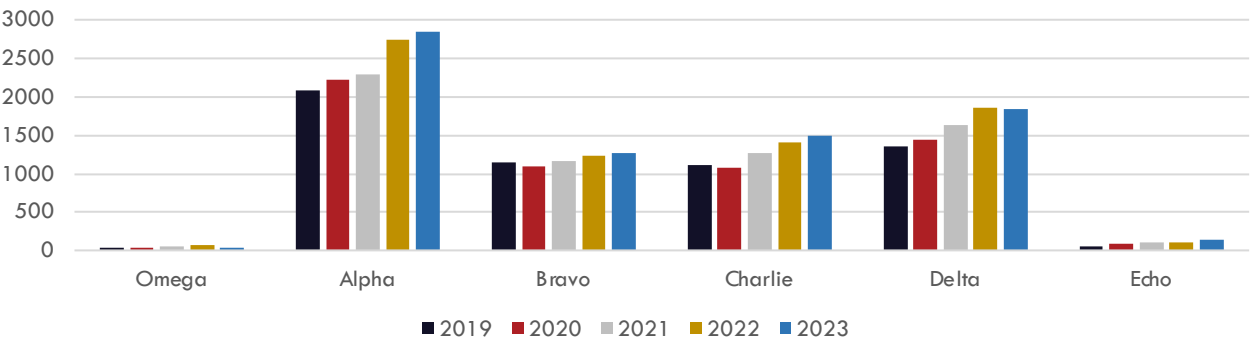


Figure 137 and Figure 138 depict the response and transport mode. Despite the public perception that every incident is responded to with lights and siren, many incidents are responded to without lights and sirens when appropriate, based on the dispatch information provided. The same is true for the transport to the hospital; the majority of the patients (around 93 percent) are transported to the hospital without lights and sirens activated. The transport mode to the hospital is decided by the treating paramedics on scene after their assessment and based on if the patient is stable or unstable or if there is a need for critical time-based treatments such as care in strokes, major traumas, or heart attacks.

Figure 137: Response Mode to the Scene 2024

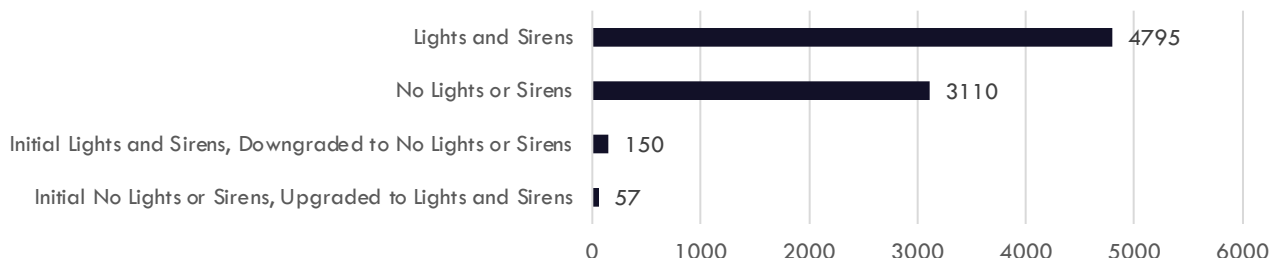


Figure 138: EMS Transport Mode to Hospital 2024

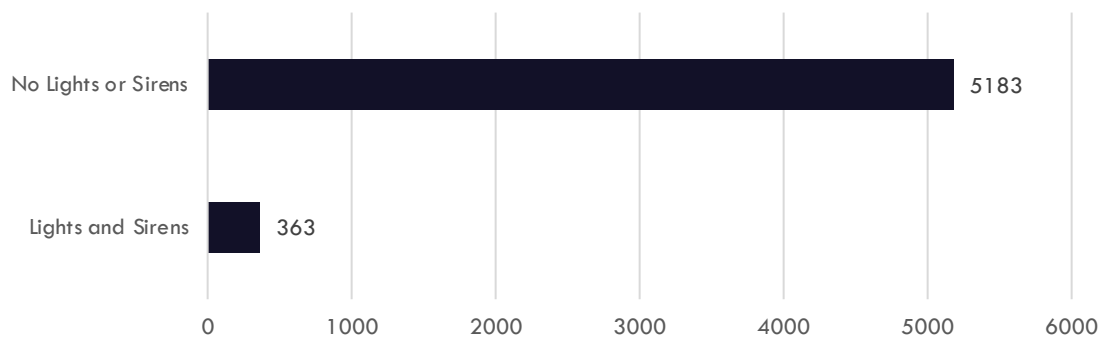


Figure 139: Lights and Sirens Transports by Primary Impressions 2024

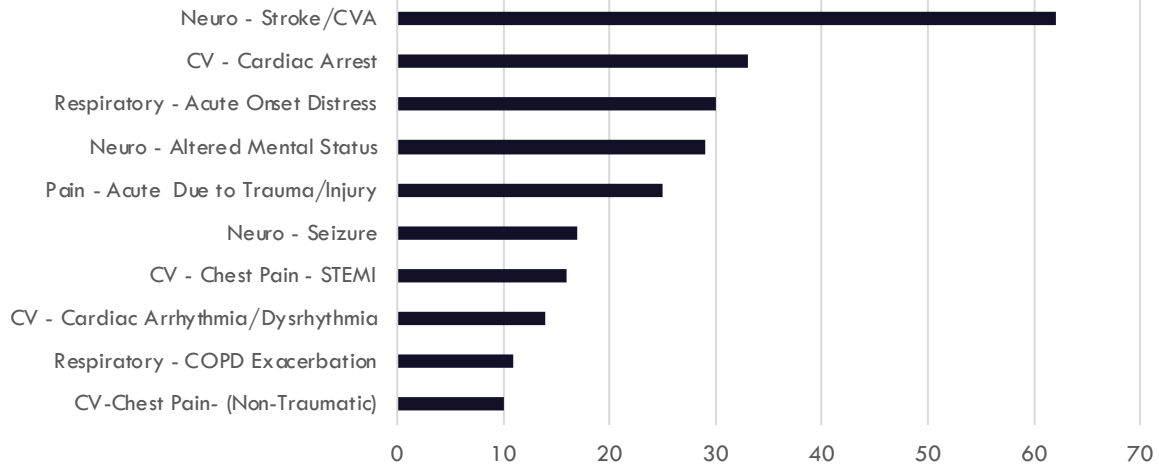
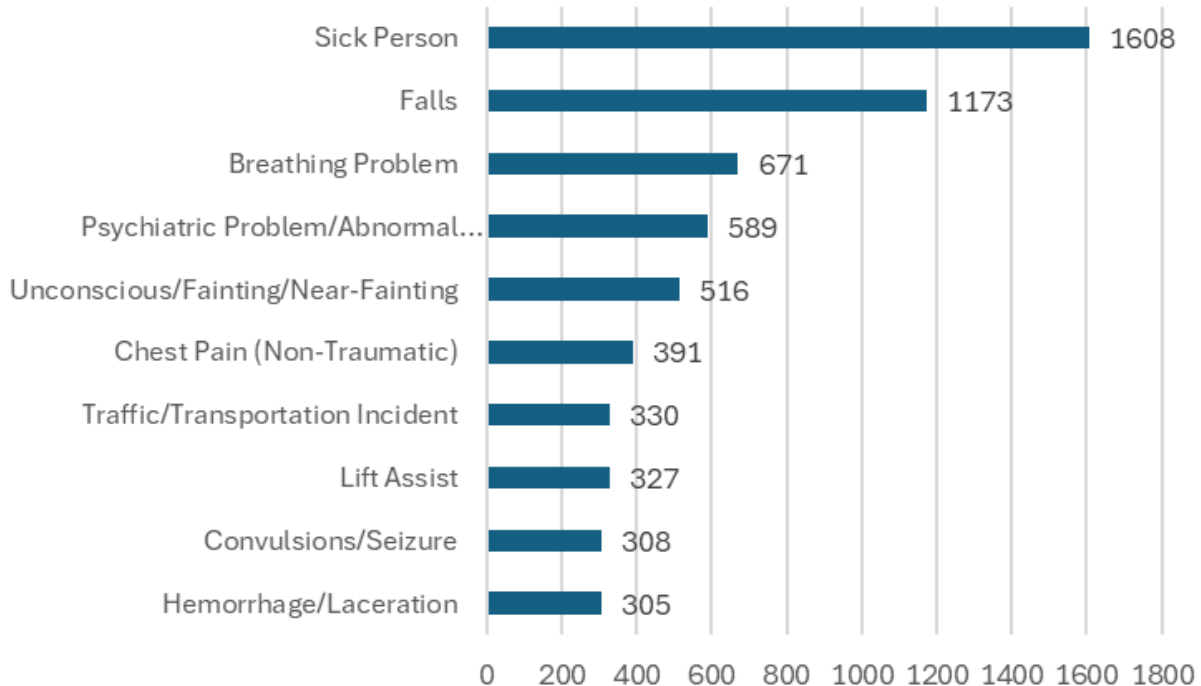


Figure 140: Top Complaints Reported to Dispatch 2024



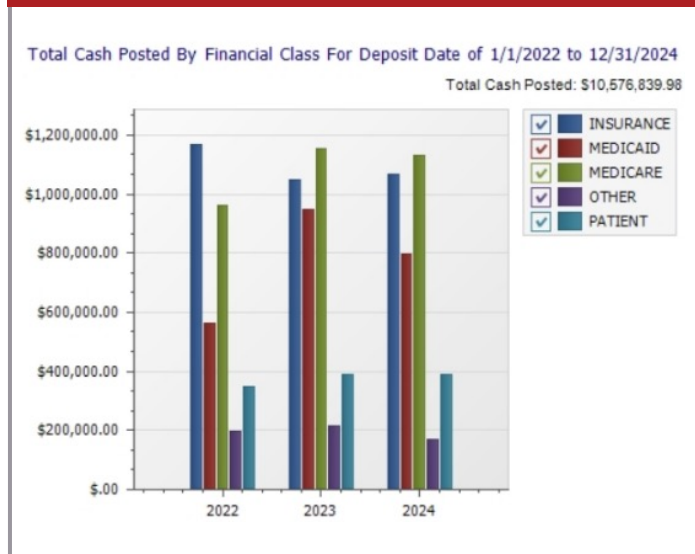
EMS BILLING

The City Burnsville uses a third-party billing service for the ambulance service billing. Medical billing is highly specialized and requires extensive training and knowledge of medical insurance billing including Medicare and Medicaid regulatory compliance.

Figure 141: Total Sales by Payor Mix Comparison 2022 to 2024



Figure 142: Total Cash Posted by Payor Mix Comparison 2022 to 2024



PREVENTION

The prevention division consists of an Assistant Chief/Fire Marshal and two Firefighter/Fire Inspectors. The prevention division inspects City of Burnsville licensed facilities such as multi-family dwellings, follows up on all fire code complaints, reviews plans and issues fire permits.

FIRE INVESTIGATION

Fire Investigation is an important function of the Burnsville Fire Department and required by state statute to determine the circumstances that caused the fire while accurately and objectively documenting those circumstances. Fire cause determination is the responsibility of all fire personnel. Formal fire investigations are done by the Fire Marshal and/or Fire Inspectors. In 2024, the prevention division completed 19 formal fire investigations. Formal fire investigations range in the amount of time required to complete them, from several hours to several days, with injuries/deaths or criminal activity requiring additional follow-up for much longer periods of time.

Fire personnel responding to fires should be observant of fire and smoke conditions of the scene upon arrival. The condition of windows and doors prior to forcible entry should be noted. Unusual events and circumstances during extinguishment, any items that may be evidence or cause of fire should not be removed unless necessary to extinguish fire or to preserve the evidence.

PERMITS AND INSPECTIONS

A “fire permit” is a required authorization to perform certain activities related to fire safety, like installing or modifying fire sprinkler systems, cooking exhaust cleaning, or fire alarm system, while a “fire inspection” is a review by a Burnsville Fire Department official to ensure that a building or facility meets fire safety codes and regulations, usually requiring a permit beforehand to make any changes.

Figure 143: Fire Prevention Permits Issued 2015-2024

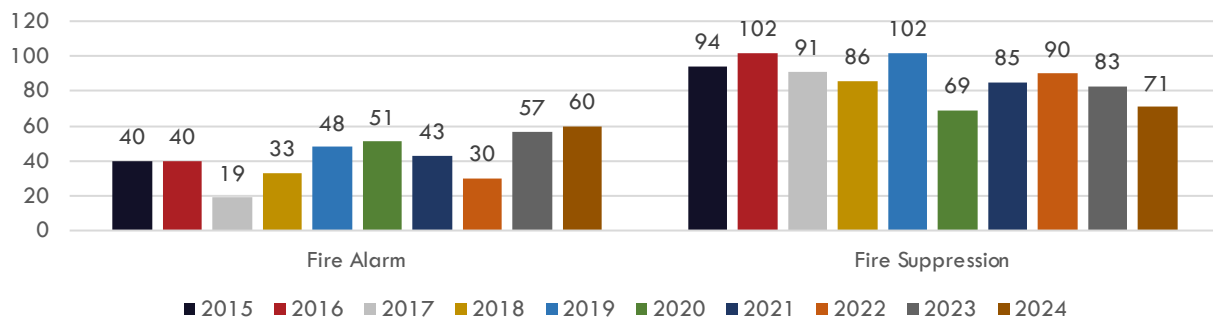


Figure 144: Other Fire Permits by Year 2015-2024

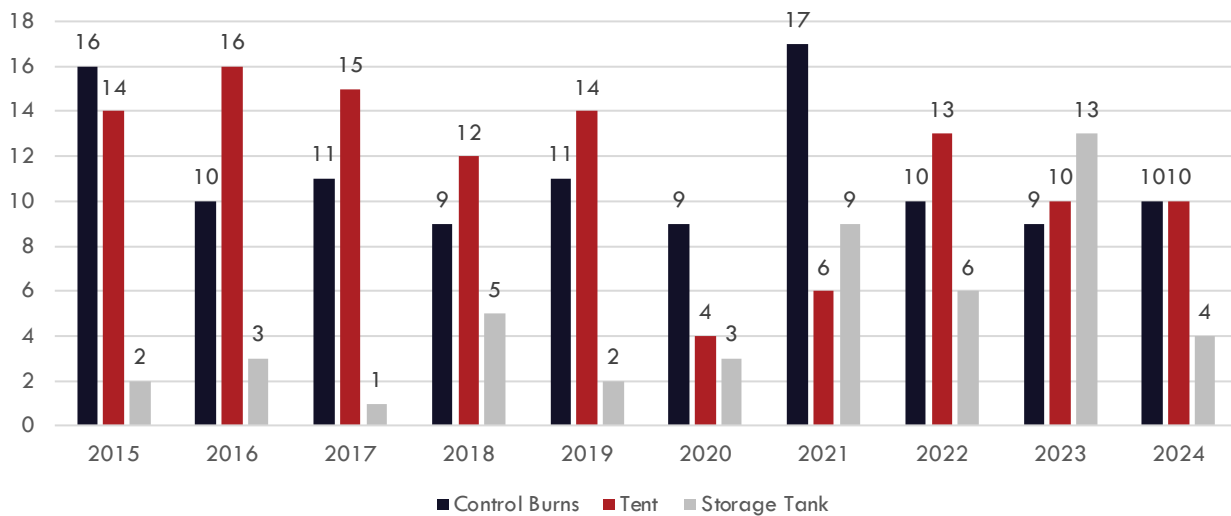
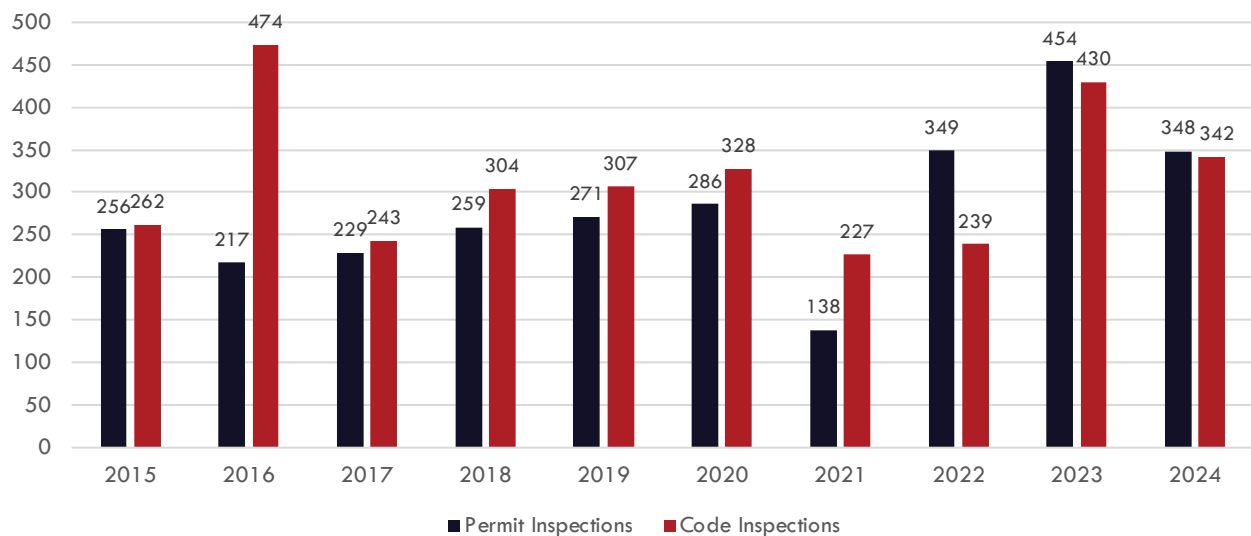


Figure 145: Fire Inspections by Year, Permit and Code 2015-2024



Fire alarms and fire sprinklers work together to save lives and reduce property damage. A local fire alarm system sounds an alarm to alert residents of an emergency but does not contact authorities. A central (monitored) alarm system alerts both residents and notifies the proper authority (9-1-1 dispatch) in case of an emergency.

Figure 146: Number of Multi-Family Buildings with or without Fire Suppression Systems

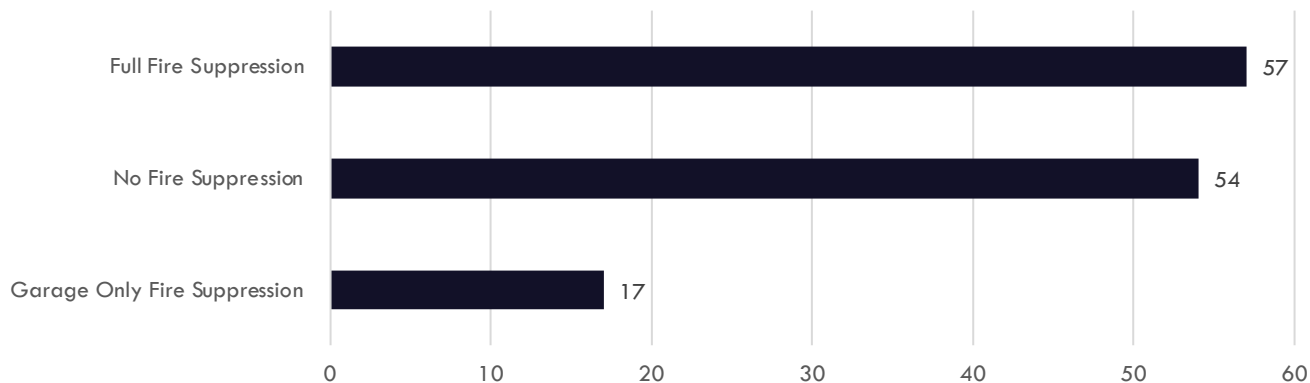
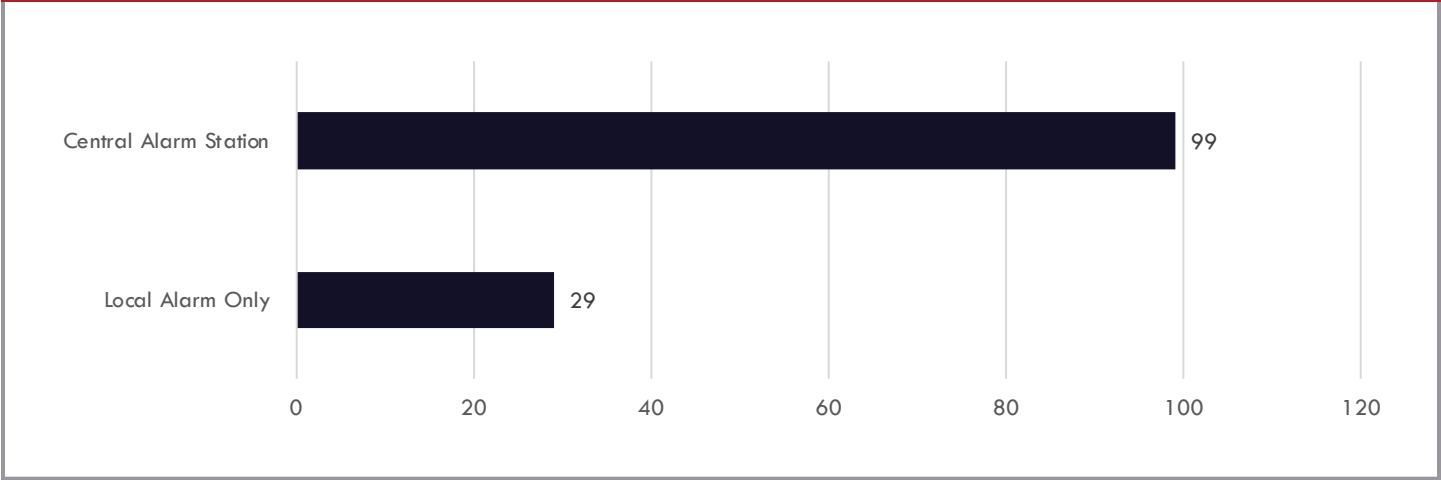
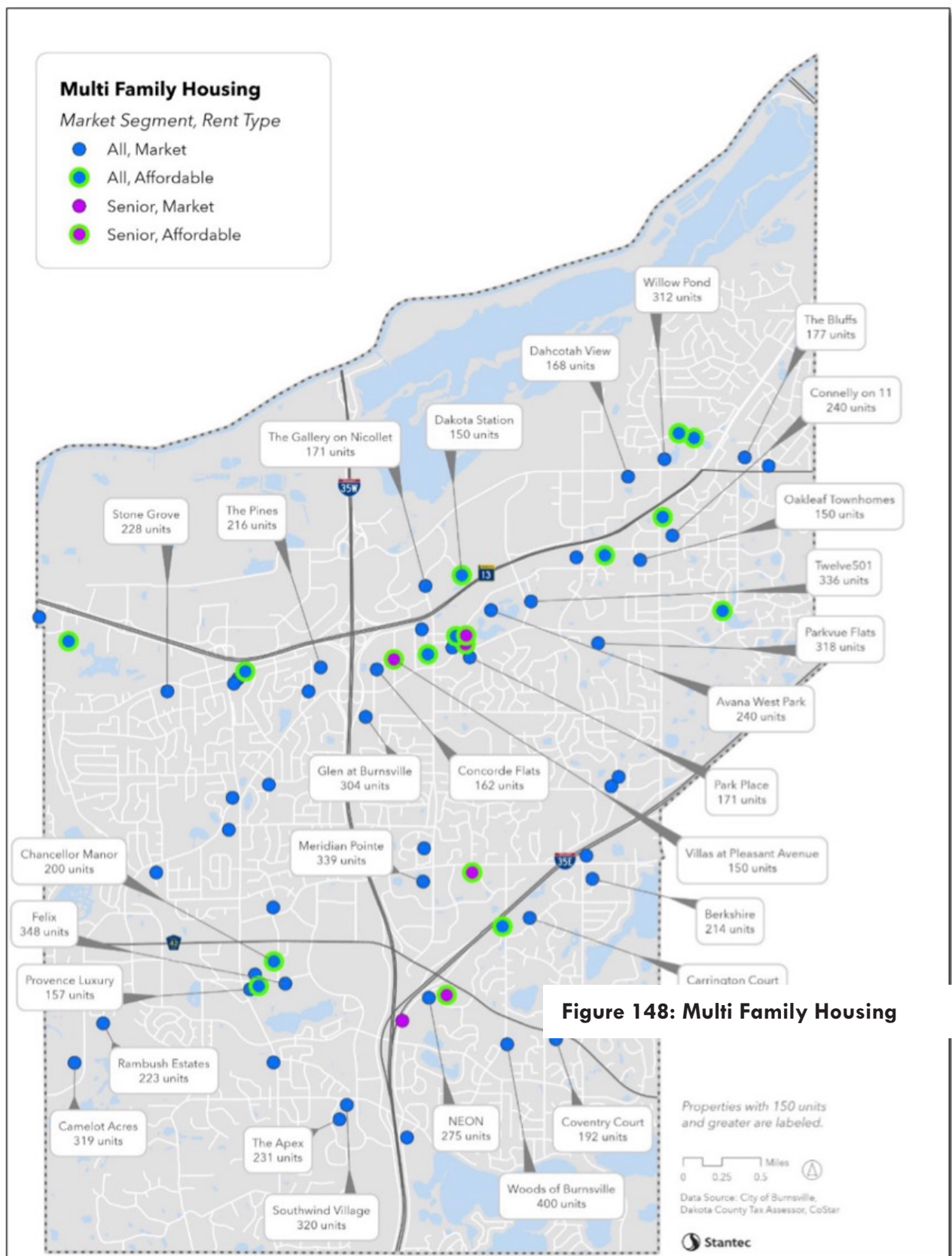


Figure 147: Number of Multi-Family Buildings with or without Fire Alarm Systems

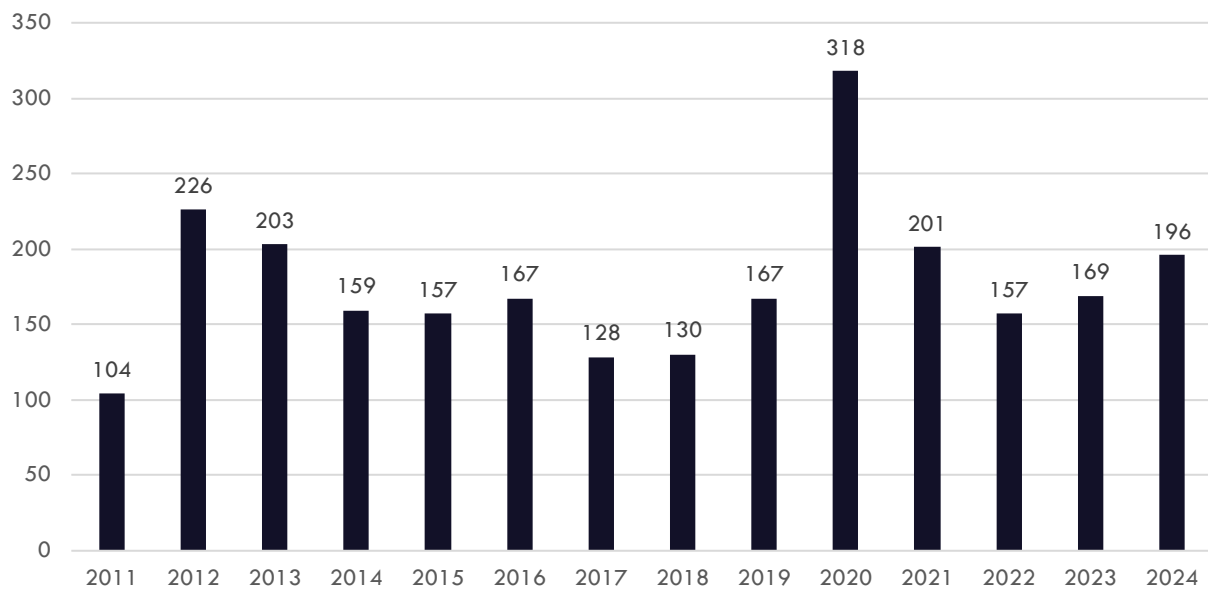


Fire alarms and fire sprinklers work together to save lives and reduce property damage. A local fire alarm system sounds an alarm to alert residents of an emergency but does not contact authorities. A central (monitored) alarm system alerts both residents and notifies the proper authority (9-1-1 dispatch) in case of an emergency.



The Fire Marshal or an inspector examines all construction plans for a building to ensure they comply with fire safety codes, evaluating aspects like egress routes, fire suppression systems, building materials, and emergency access points, to minimize fire risks and facilitate safe evacuation in case of a fire incident.

Figure 149: Fire Plan Reviews by Year



PREPLANS

Pre-incident planning provides the Incident Commander (IC) and the response team with facts and details almost impossible to acquire during an actual event. This important information is available because pre-incident planning is conducted in ideal situations, during the daylight under non-emergency conditions. By physically visiting these target hazards during these information-gathering visits increases the awareness and knowledge of responders who might have to operate at (and in) these locations under critical conditions.

Even though the task-level workers operating at an incident aren't in the position to review the actual plan during an event, they retain the familiarity gained during the preplanning process. An IC working in the command position is generally in the best position to look at, manipulate and manage the plans, and can relay pertinent information to the decentralized operating staff.

Figure 150: Preplan



PUBLIC EDUCATION

Fire personnel have a general responsibility to prevent fires through the education of the public. Personnel shall be prepared to assist with fire and life safety education programs, educate through use of various mediums, speak to groups on fire safety subjects and provide fire safety information that will help them to prevent and survive emergencies, and promote the professional image of the Burnsville Fire Department and its commitment to sharing resources.

The Burnsville Fire Department is formally involved in public education activities. In the fall, one firefighter is taken off shift and is assigned to visit elementary schools to provide public education messages and truck tours for kindergarten through fifth throughout the City of Burnsville. Fire Prevention week is concluded with the annual Fire Prevention Open House, one of the largest events with over 1,000 visitors. The event allows visitors to tour the station and trucks, meet firefighters, receive interactive demos of CPR, extinguishment, home evacuation drills, and see a kitchen fire demo.

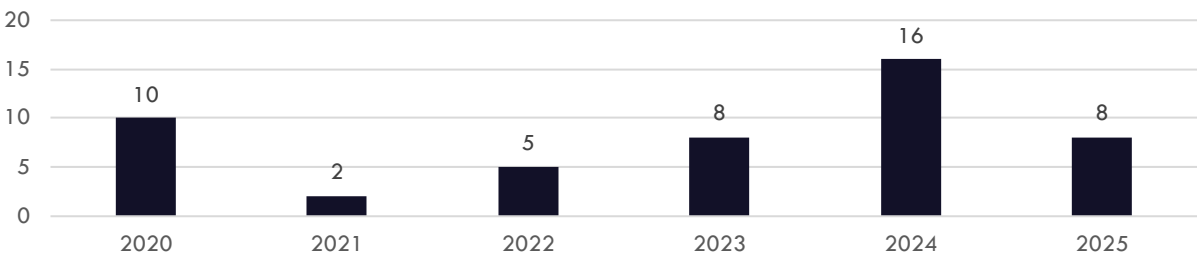
NEW FIREFIGHTER BACKGROUND CHECKS

A background investigation is conducted, by an agency designated by the fire chief, on each candidate for employment with the Burnsville Fire Department prior to the job being offered. Currently three fire personnel have received specialized training to conduct background investigations. These trained investigators are required to complete this task separate from their normal responsibilities and each background investigation takes 40-80 hours to complete.

Background investigations will include, as a minimum, verification of the following: criminal history checks through NCIC/MINCIS and fingerprint checks on the state and national levels, interviews with at least three personal references, interview(s) with past/present employees, birth certificate or proof of United States citizenship, social security card, documentation certifying completion of academic and skill requirements/certifications, i.e., Firefighter, Paramedic, etc., valid driver’s license in state of residence and eligible for Minnesota driver’s license, Paramedic national registry certificate (if applicable), Military Form DD214 (if applicable), review of social networking accounts.

Personnel conducting background investigations are trained in collecting the required information. A record of each candidate’s background investigation is maintained on file in accordance with the City of Burnsville’s records retention schedule.

Figure 151: Background Investigations Conducted by Year



PRIVATE HYDRANTS

Approximately 30% (1,274) of the fire hydrants in the City of Burnsville are privately owned. These hydrants are considered private because they were installed on private property as part of the private fire protection or private water systems that serve a variety of multi-family housing, rental, industrial, and commercial properties within the City of Burnsville. Because of the types of properties private hydrants typically serve, it is critical that they operate properly. Fires in these areas pose increased risks to loss of life and property due to housing densities and building types.

In June 2012, the Burnsville City Council approved an ordinance and policy for Fire Protection Water Supplies. The ordinance required that all private fire hydrants be inspected and operated annually. The policy required that all owners of private fire hydrants submit to the City of Burnsville certification by a certified inspector that the fire hydrant(s) on their property have been inspected and are operating properly. If no certification is submitted, the City of Burnsville has the inspection completed. The cost of the inspection would be billed to the property on the monthly water bill in accordance with the City of Burnsville’s fee schedule. The City of Burnsville chose to contract fire hydrant inspection services rather than add additional staff to complete them but provides an application that provides real time data of the inspections.

The number of private hydrants needing service has continued to decline since the program’s inception, which seems to indicate that the maintenance program is meeting its intended purpose. However, given the age of the private hydrants in the City of Burnsville, the need for this program will continue to ensure that the private hydrants will function as designed should a fire occur.

Figure 152: Private Hydrant Inspection Dashboard

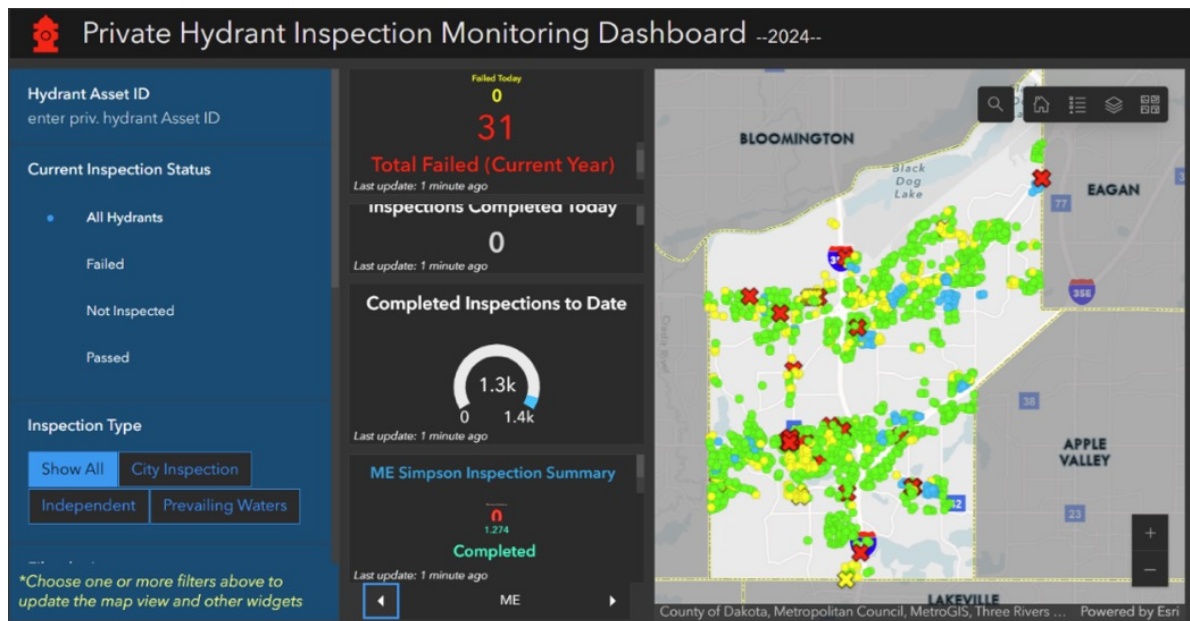
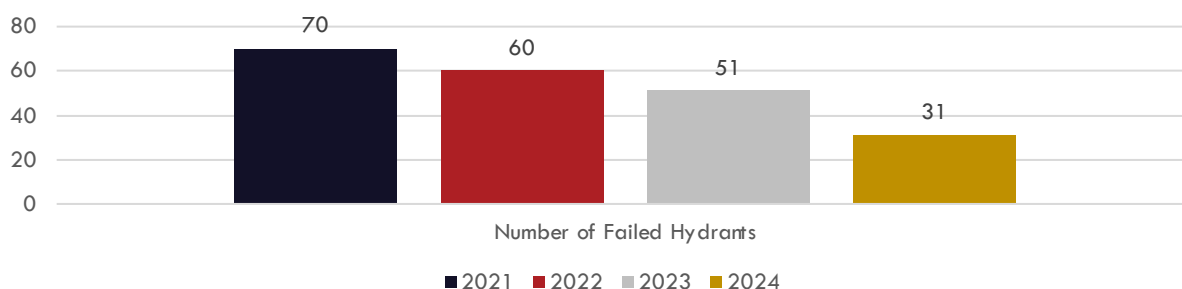


Figure 153: Number of Private Hydrants Failed



RECREATIONAL FIRE

Recreational fires are allowed within the City of Burnsville. A free permit is required for all types of recreational fires which include the use of wood-burning appliances and BBQ pits. The permit requirements are based on Burnsville City Ordinance 5-4 and guidelines taken from the MN State Fire Code and common fire safety practices.

FIRE-953
This is an e-permit. To learn more, scan this barcode or visit burnsvillemn.viewpointcloud.com/records/185960

Issued to: Jon Zwart

Location: 1809 RIO LOMA LN

Recreational Fire Permit

Expires: December 31, 2024

Prior to starting the fire, call the Recreational Burning Hotline at 952-896-4888 to ensure it is safe to burn with the current weather conditions.
Do not burn if conditions are windy or it is very dry. Permits are not valid during these fire-spreading, high-risk times or when a temporary burning ban is in place.

Recreational fires are not allowed in the public right-of-way
Fires are allowed on private property or in landscaped cul-de-sac islands. The fire must be contained within a non-combustible fire ring. The person who kindles the fire must have a valid Recreational Burning Permit and is responsible for ensuring that the fire is fully extinguished.

Clearance
The fire must be minimum of 25 feet from structures and fencing; minimum of 15 feet from property line; and the pile size maximum is three feet in diameter and three feet in height. The ground within five feet of the base of fire must be clear of all combustible materials, including grass and weeds.

All recreational fires must be extinguished by 11p.m

Only Firewood Burning is Allowed

What cannot be burned?

COMMUNITY OUTREACH

MOBILE VOLUNTEER NETWORK

The Mobile Volunteer Network (MVN) is a group of community members who assist the Burnsville Police and Fire Departments. MVN members assist during special events or emergency situations and are trained in crowd control, first aid, traffic control and search and rescue.

CARDIOPULMONARY RESUSCITATION – HEART RESTART

Cardiopulmonary resuscitation (CPR) is a lifesaving technique useful in many emergencies in which a person’s breathing or heartbeat has stopped. Through volunteers, the Burnsville Fire Department offers free Heart Restart classes that teach compression-only CPR.

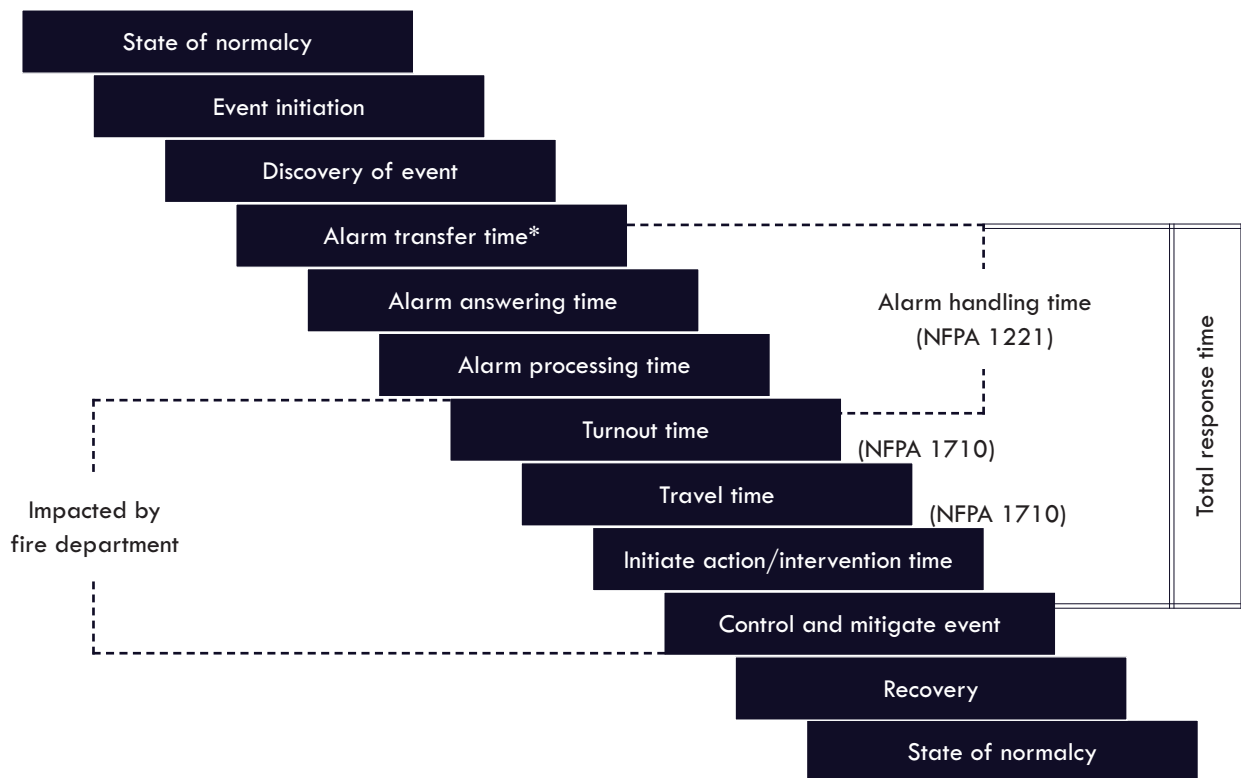
SMOKE ALARMS/CARBON MONOXIDE

The Burnsville Fire Department responds to an ever-growing number of service calls to homes where a Carbon Monoxide (CO) detector and/or Smoke Alarm has sounded an alarm. In most of these calls it has been determined to be a false alarm. Many times, this is the result of improperly placed detectors or weak battery life of the detector. Fire personnel will assist proper placement and provide replacement batteries as necessary.

REVIEW OF SYSTEM PERFORMANCE

Below is the response time NPFA 1710 timeline that shows all aspects that contribute to a response time. Some of these aspects are within the Burnsville Fire Department's control and some are not.

Figure 154: NFPA 1710 Timeline



*If alarms are not received directly at the fire department communication center and not transferred from a PSAP, alarm transfer time is zero.

The Burnsville Fire Department's response time performance at the 90th percentile is 10 minutes (the 90th percentile measures a higher degree of performance to determine what level of service 9 of 10 requests for service would receive, which in this case 9 of 10 residents would receive a response in 10 minutes or less from when the department is notified).

Figure 155: Turnout Averages and 90th Percentile by Category⁸

INCIDENT TYPE CATEGORY	VEHICLE MOVEMENTS	AVERAGE TURNOUT	90 TH PERCENTILE TURNOUT
Fire	305	00:01:33	00:02:09
Overpressure Rupture, Explosion, Overheat (No Fire)	101	00:01:31	00:02:05
Rescue & Emergency Medical Service Incident	9056	00:01:17	00:02:00
Hazardous Condition (No Fire)	232	00:01:27	00:01:58
Service Call	796	00:01:26	00:02:11
Good Intent Call	553	00:01:24	00:02:04
False Alarm & False Call	1012	00:01:32	00:02:16
Special Incident Type	14	00:01:30	00:01:38
Grand Total	12069	00:01:20	00:02:03

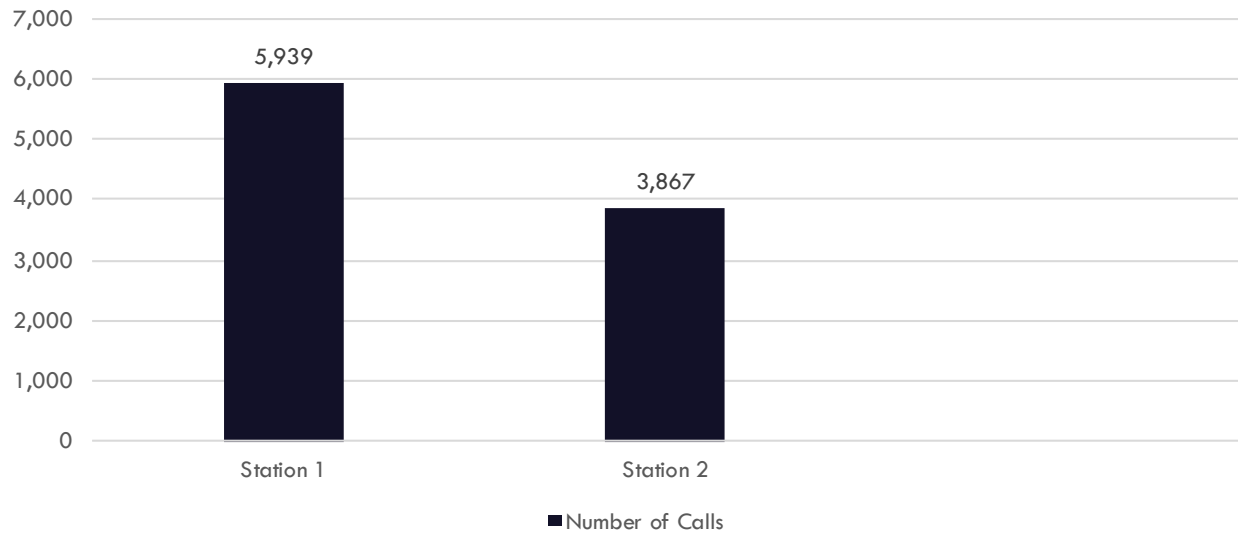
Figure 156: Travel Averages and 90th Percentile by Category⁹

INCIDENT TYPE CATEGORY	VEHICLE MOVEMENTS	AVERAGE TRAVEL	90 TH PERCENTILE TRAVEL
Fire	298	00:04:18	00:06:37
Overpressure Rupture, Explosion, Overheat (No Fire)	100	00:03:46	00:05:55
Rescue & Emergency Medical Service Incident	6928	00:04:05	00:06:05
Hazardous Condition (No Fire)	190	00:04:03	00:06:43
Service Call	214	00:04:14	00:06:38
Good Intent Call	413	00:03:56	00:05:58
False Alarm & False Call	868	00:03:52	00:05:57
Special Incident Type	1	00:04:15	00:04:15
Grand Total	9012	00:04:04	00:06:06

⁸ All Response Modes Included, Times filtered out: Dispatch to En Route less than 10 seconds or over 10 minutes

⁹ *Emergent Calls Only; Times filtered out: Dispatch to En Route less than 10 seconds or over 10 minutes, Travel time over 30 minutes

Figure 157: Demand by Station 2024



CURRENT DEPLOYMENT STRATEGY

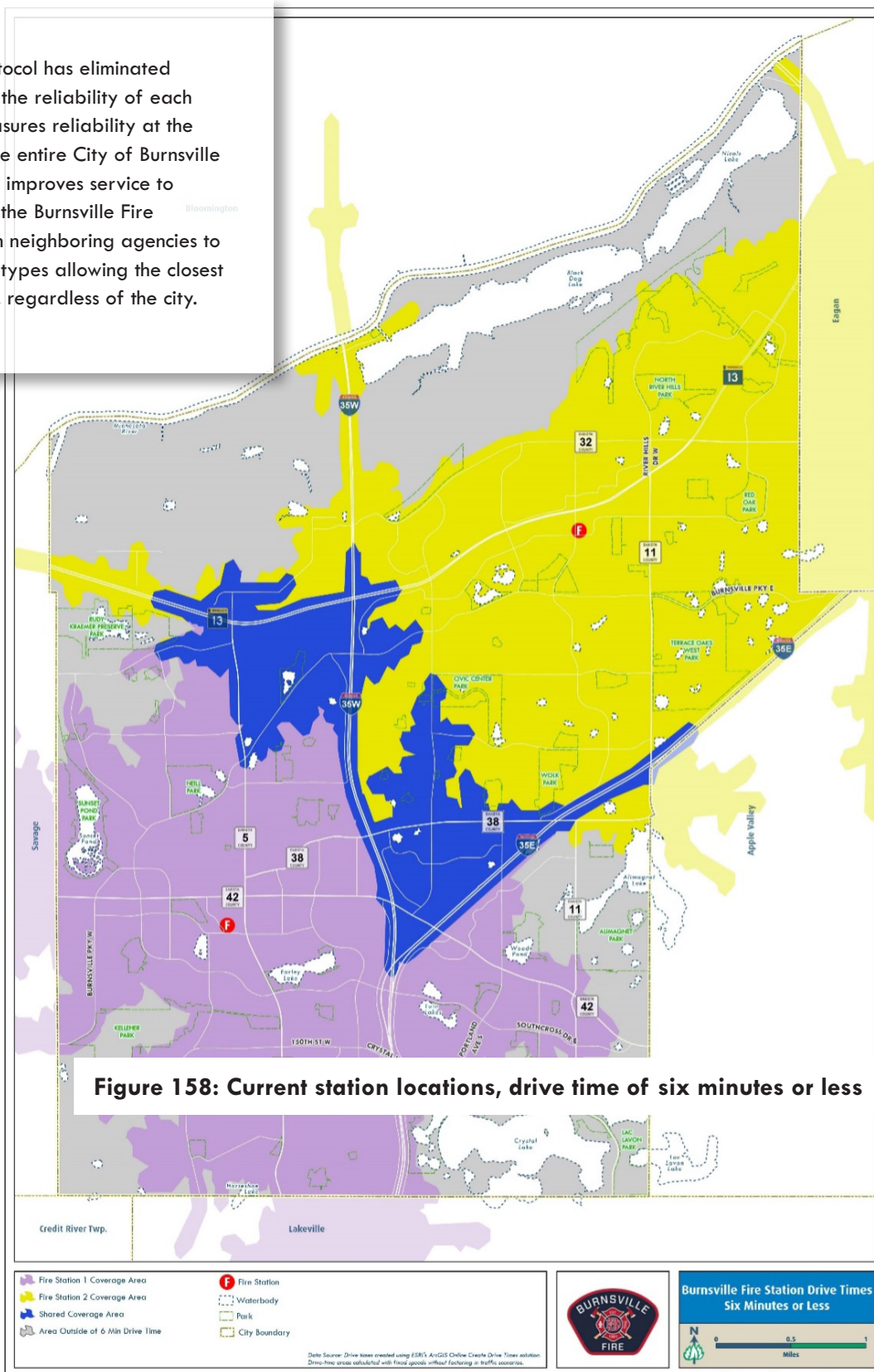
RESPONSE AREAS

With the introduction of an upgraded computer aided dispatch (CAD) system in 2015, the Burnsville Fire Department has moved to a closest unit dispatch protocol. Prior to 2015, the Burnsville Fire Department used the traditional static dispatch protocol that dispatched units based on map boundaries that declared which station would be the primary responder to which addresses/areas in the City of Burnsville.

The closest unit dispatch protocol has allowed the Burnsville Fire Department to dispatch the closest, most appropriate unit for the emergency, regardless of which station they are housed in. This increases efficiency and effectiveness if a unit is out of the station and closer to a call.

With the modern CAD system, the Burnsville Fire Department knows the current location of each primary response vehicle and their availability to respond to an emergency. The closest unit also allows us to request the closest mutual aid fire unit for incidents that need further assistance.

The closest unit dispatch protocol has eliminated the possibility of calculating the reliability of each station and instead now measures reliability at the system level by looking at the entire City of Burnsville as one response area, which improves service to the community. Additionally, the Burnsville Fire Department has worked with neighboring agencies to drop borders on critical call types allowing the closest appropriate unit to respond, regardless of the city.



APPARATUS

Figure 159: Apparatus Fleet 2024

APPARATUS ID	APPARATUS TYPE	YEAR	MAKE	MODEL
Medic 1	Ambulance	2022	Ford	F550
Medic 2	Ambulance	2019	Ford	F-550
Medic 3	Ambulance	2018	Ford	E-450
Medic 4	Ambulance	2017	Ford	E-450
Medic 5	Ambulance	2015	Ford	E-450
Medic 6	Ambulance	2024	Ford	F550
Ladder 1	Ladder	2018	Pierce	Enforcer
Engine 1	Rescue Pumper	2014	Pierce	Velocity
Engine 2	Rescue Pumper	2021	Pierce	Velocity
Engine 21	Rescue Pumper	2012	Pierce	Velocity
SOT Rescue	Collapse Structure Rescue	2005	Freightliner	M2112 38.620#GVW
Battalion Chief	Battalion Chief	2024	GMC	Pick Up Truck
Boat 1	Boat	2010	Zodiac	
Chief 1	Chief's Vehicle	2021	Chevrolet	Tahoe
Chief 2	Chief's Vehicle	2022	Chevrolet	Tahoe
Chief 3	Chief's Vehicle	2024	Chevrolet	Tahoe
Chief 4	Chief's Vehicle	2018	Ford	Explorer
Rescue 1	Rescue Truck	2023	Ford	F350 4X4 Crew Cab
Utility 2	Utility Truck	2023	GMC	Pick Up Truck
Utility 3	Utility Truck	2013	Chevrolet	Tahoe
Fire Inspector 1	Inspections Vehicle	2023	Ford	F150 Pickup
Fire Inspector 2	Inspections Vehicle	2020	Ford	Explorer
Mobile Command Vehicle	Mobile Command Post	2005	Freightliner	MCC30LLS2/LDV

REVIEW OF SYSTEM PERFORMANCE

Apparatus is crucial and the cost to replace them continues to rise and so does the timeframe to receive them.

Figure 160: Cost to Purchase Fire Apparatus (does not include equipment)

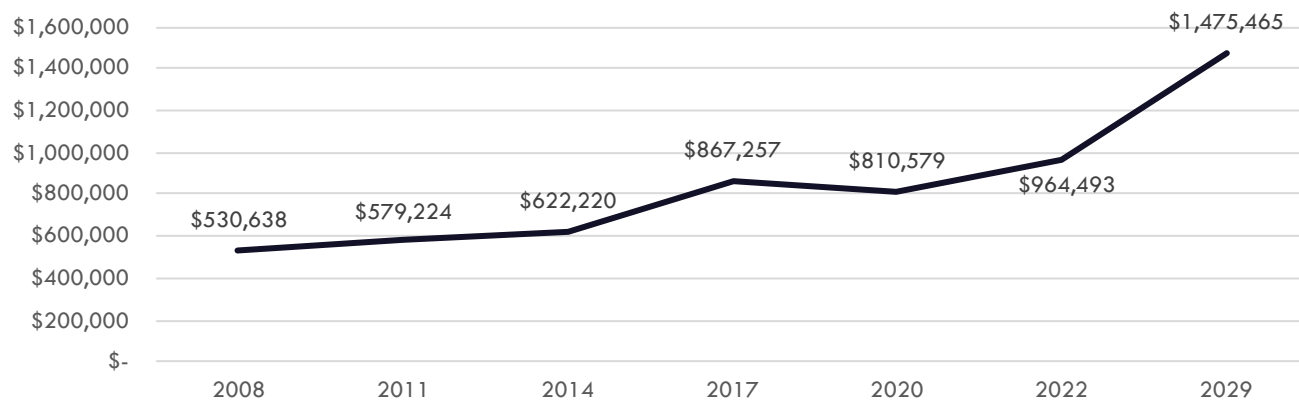
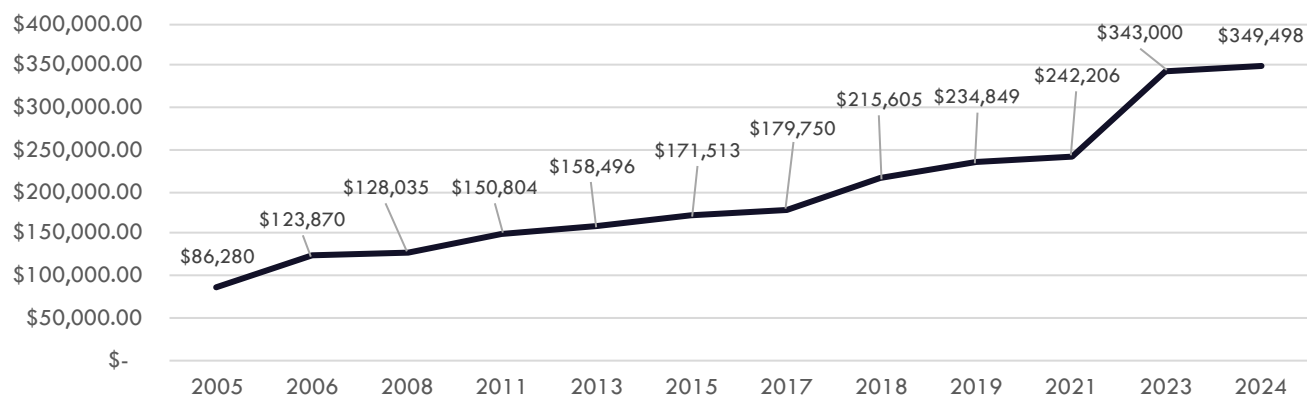


Figure 161: Cost to Purchase Ambulance (does not include equipment)



FIRE STATION 1 14275 Newton Avenue

Built in 2022, designed to support the health and wellness of first responders, has a variety of training features, including an interior tower, and mezzanine with a configurable maze.

Minimum staffing seven (7) personnel 8 a.m.–8 p.m. and five (5) personnel 8 p.m.–8 a.m.

Figure 162: Fire Station 1



Figure 163: Station 1 Resources

APPARATUS	APPARATUS TYPE	NUMBER OF PERSONNEL ASSIGNED
Engine 1	Engine	3
Ladder 1	Ladder	Cross-staffed from Engine 1
Medic 1	Ambulance	2
Medic 2	Ambulance	2 (8am-8pm)
Medic 3	Ambulance	Unstaffed Reserve
Medic 5	Ambulance	Unstaffed Reserve
SOT Rescue	Rescue (Dakota Special Operations Team)	Unstaffed
Boat 1	Zodiac Boat	Cross Staffed
Utility 1	Utility	Unstaffed Reserve
Mobile Command Vehicle	Mobile Command Post	Unstaffed

Figure 164: Engine 1



Engine 1

Staffed with a Captain/Paramedic and two Firefighter/Paramedics 24/7



Figure 165: Ladder 1



Ladder 1

Cross staffed with Engine 1 staff when in quarters and a structure fire is dispatched.

If Engine 1 is not in quarters when a structure fire is dispatched, the Burnsville Fire Department relies on mutual aid partners to respond with a ladder truck.

Figure 166: Medic 1



Medic 1

Staffed with two Firefighter/Paramedics 24/7



Figure 167: Medic 2



Medic 2

Staffed with two Firefighter/Paramedics 12 hours per day (peak hours 8 a.m.–8 p.m.)



8 a.m.–8 p.m.: Staffed
8 a.m.–8 a.m.: Not staffed

Figure 168: Medic 3



Medic 3

It is not staffed and is used by off-duty staff during callbacks or by primary response crews while a vehicle is out for maintenance.

Medic 5

It is not staffed and is used by off-duty staff during callbacks or by primary response crews while a vehicle is out for maintenance.

SOT Rescue

It is not staffed and is brought to scenes by staff moved from other staffed vehicles or from off-duty call back staff. It has specialty equipment for use across the county for collapse rescue, medical care and many other special rescue incidents.

Boat 1

It is not staffed and is brought to the scene by staff moving from other staffed vehicles or from off-duty call back staff. This boat is a zodiac with a 40hp motor that can be used on open bodies of water.

Utility 1

It is not staffed and is brought to scenes by 40-hour staff or off-duty call back staff. It is used to bring dirty used equipment from a scene back to the station to keep the response vehicles from being grossly contaminated.

Figure 169: Fire Station 2



FIRE STATION 2 12155 Parkwood Drive

Built in 1989 and due for replacement in 2028/2029

Minimum staffing four personnel 24/7

Figure 170: Station 2 Resources

APPARATUS	APPARATUS TYPE	NUMBER OF PERSONNEL ASSIGNED
Engine 2	Engine	2
Medic 6	Ambulance	2
Medic 4	Ambulance	Unstaffed Reserve
Engine 21	Engine	Unstaffed Reserve
UTV	UTV 4x4	Cross Staffed from Medic 6
Utility 2	Utility	Unstaffed Reserve

Figure 171: Engine 2



Engine 2

Staffed with a Captain/Paramedic and Firefighter/Paramedic 24/7)



Figure 172: Medic 6



Medic 6

Staffed with two Firefighter/Paramedics 24/7)



Figure 173: Medic 4



Medic 4

It is not staffed and is used by off-duty staff during callbacks or by primary response crews while a vehicle is out for maintenance.

Figure 174: Engine 21



Engine 21

It is not staffed and is used by off-duty staff during callbacks or by primary response crews while a vehicle is out for maintenance.

UTV 4x4

Cross-staffed with Medic 6 staff when in quarters and a brush fire is dispatched. If Medic 6 is not in quarters when a brush fire is dispatched the Burnsville Fire Department relies on mutual aid partners to respond with a brush truck.

Utility 2

It is not staffed and is brought to scenes by 40-hour staff or off-duty call back staff. It is used to bring dirty used equipment from a scene back to the station to keep the response vehicles from being grossly contaminated.

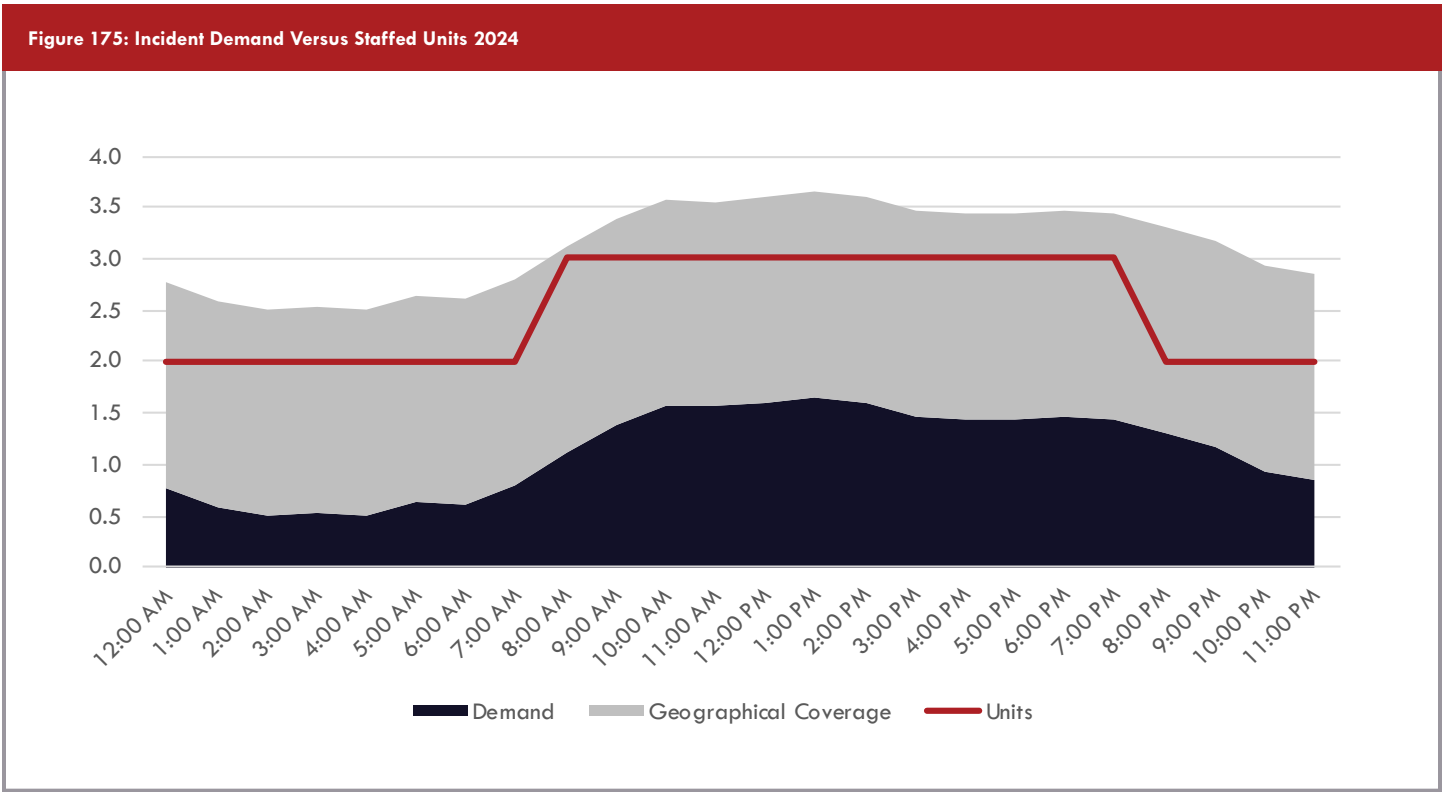
ADMINISTRATION

Five SUVs for the Fire Chief, three Assistant Fire Chiefs, and one Fire Inspector and one pickup truck for one Fire Inspector. All vehicles have the capability of responding to fire and medical calls to render aid or take command of an emergency scene. These vehicles carry each staff person’s assigned protective equipment, incident command materials and medical aid bags.

DEMAND/COVERAGE VERSUS STAFFED UNITS BASED ON 9-MINUTE RESPONSE TIME

It currently takes two available units to cover the City of Burnsville’s geography to ensure a 9-minute response time, which is inclusive of a 6-minute travel time on 80% or greater of the emergency responses. The Burnsville Fire Department staffs two ambulances and two fire engines 24 hours per day, 7 days per week. Since 2017, the Burnsville Fire Department has staffed a peak demand ambulance 12 hours per day, 7 days per week during the peak demand period from 8 a.m. to 8 p.m.

Figure 175 below shows that the coverage and demand outpaces the Burnsville Fire Department’s available resources to ensure both geographic and demand coverage for the City of Burnsville. This disparity will continue to grow in the future as the demand for the Burnsville Fire Department’s services continues to escalate.



MUTUAL AID

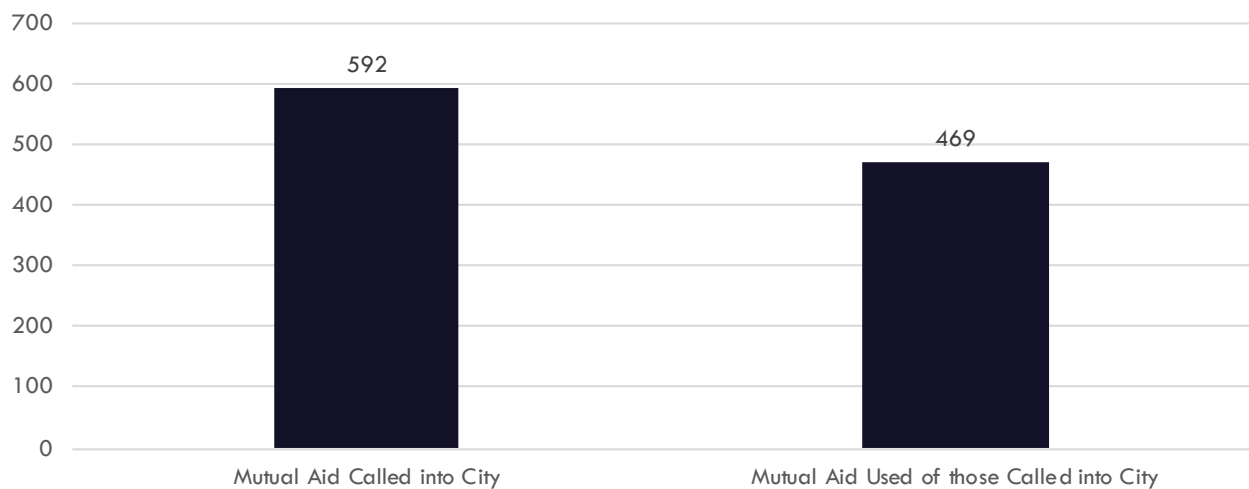
The Burnsville Fire Department recognizes the need to be adequately prepared to deal with floods, natural disasters, fires or other emergencies occurring within the City of Burnsville.

The Burnsville Fire Department is a member of the Dakota County Governmental Units Agreement for Joint and Cooperative Use of Fire Personnel and Equipment and the Minnesota Department of Natural Resources Cooperative Fire Protection Agreement.

The Burnsville Fire Department relies on mutual aid for both fire and EMS responses to meet the resources' needs for large or complex incidents as well as filling in when units are unavailable to meet the demand for service. The Burnsville Fire Department has fire Mutual Aid and Auto-Aid Agreements with the cities of Apple Valley, Eagan, Lakeville, Savage and Bloomington. The Burnsville Fire Department has Ambulance Service Mutual Aid Agreements with Allina Medical Transportation, Allina Hospitals and Clinics, and HealthEast Ambulance.

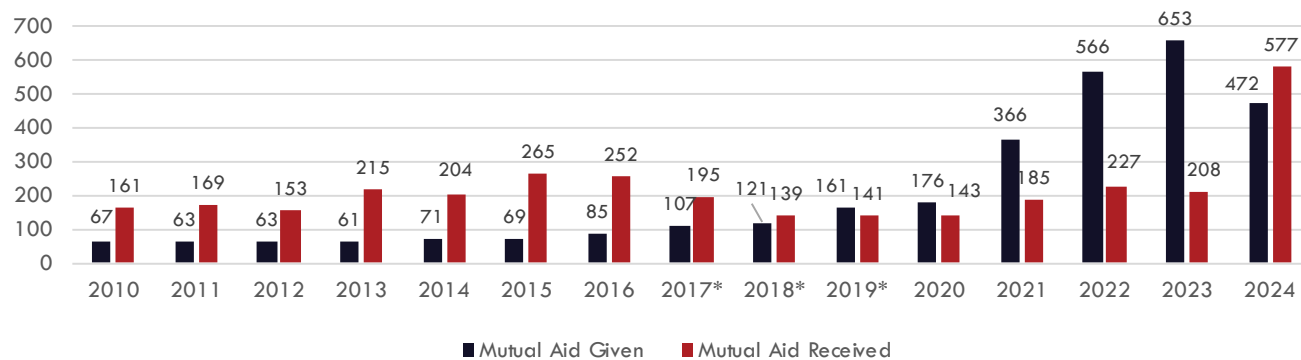
The Burnsville Fire Department required a significant amount of mutual aid assistance for EMS incidents prior to the implementation of the peak demand unit in mid-2017. In most systems, mutual aid is generally equitable.

Figure 176: EMS Mutual Aid Called vs. EMS Mutual Aid Used 2024^{10*}



¹⁰ Inclusive of auto-aid

Figure 177: Mutual Aid Given and Received 2010–2024*¹¹



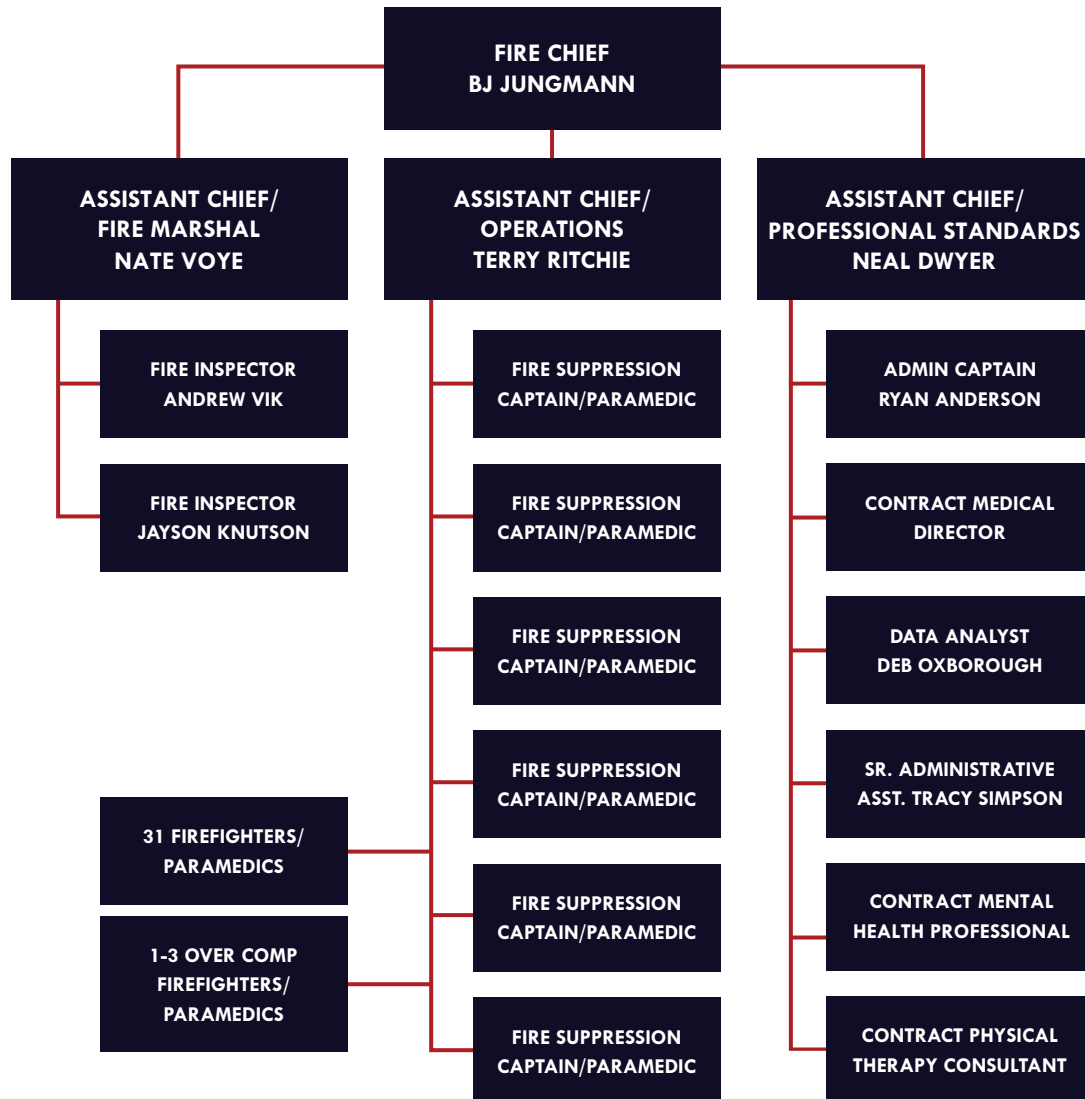
*Post Implementation of Peak Demand Unit

¹¹ Excluding cancelled enroute call types; inclusive of auto-aid

* 2024 Burnsville Fire did not respond to our calls for service for almost two weeks due to Line of Duty Death

CURRENT STAFFING STRATEGY

Figure 178: Burnsville Fire Department Organizational Chart 2024



SHIFT STAFFING LEVELS

The Burnsville Fire Department has established fire suppression staffing levels, minimum staffing levels, and minimum position assignment to efficiently function.

The assigned suppression staffing levels are 13 Full Time Equivalents (FTE) daytime hours and 11 FTEs for night hours. Day hours are 08:00-20:00 hours and night hours are 20:00-08:00 hours. These FTE's will be comprised of both supervisory and non-supervisory positions capable of fulfilling the duties of fire and EMS response. The positions shall include two Suppression Captains, and eleven Firefighters with the assignment of FMO, Paramedic, or EMT. Two of the 11 firefighters will work the daytime 12-hour shift.

Suppression staffing will be allowed to drop to a level of nine personnel before backfilling positions with overtime. Suppression staffing assignments shall maintain the following minimums: one captain, four paramedics, and one fire motor operator (FMO). The difference between the assigned suppression staffing and minimum staffing allows two personnel to be off shift daily before there is a need to backfill with off-duty overtime.

Figure 179: Daytime Staffing Minimums	
Engine 1	
Medic 1	
Medic 3	
Engine 2	
Medic 2	

Figure 180: Nighttime Staffing Minimums	
Engine 1	
Medic 1	
Medic 3	Not staffed from 8pm to 8am
Engine 2	
Medic 2	

The Burnsville Fire Department operates a rotating A, B, C shift which has a 24-hour schedule and a D and E shift which has a 12-hour schedule. Personnel on a 24-hour shift schedule work an average of 56 hours/week, which totals 2,912 working hours per year compared to the average 40-hour employee working 2,080 hours/year. Additionally, due to Fair Labor Standards Act (FLSA) laws, they do not receive any overtime until they exceed 53 hours/work week, averaged over a three-week period.

Figure 181: 24-hour Schedule

January 2025							February							March						
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
			1	2	3	4						1								1
			B	C	A	C						A								B
5	6	7	8	9	10	11	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	C	B	C	A	B	A	B	A	C	A	B	C	B	C	B	A	B	C	A	C
12	13	14	15	16	17	18	9	10	11	12	13	14	15	2	3	4	5	6	7	8
B	A	C	A	B	C	B	C	B	A	B	C	A	C	A	C	B	C	A	B	A
19	20	21	22	23	24	25	16	17	18	19	20	21	22	16	17	18	19	20	21	22
C	B	A	C	A	B	C	A	C	B	A	B	C	A	B	A	C	A	B	C	B
26	27	28	29	30	31		23	24	25	26	27	28		23	24	25	26	27	28	29
A	C	B	C	A	B		B	A	C	A	B	C		C	B	A	C	A	B	C
														30	31					
														A	C					

April							May							June						
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
			1	2	3	4	5					1	2	3	4	5	6	7		
			B	C	A	B	A					B	C	B	A	C	B	C	A	B
6	7	8	9	10	11	12	4	5	6	7	8	9	10	6	7	8	9	10	11	12
B	A	C	A	B	C	B	C	B	A	B	C	A	C	B	A	C	A	B	C	B
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
C	B	A	C	A	B	C	A	C	B	A	B	C	A	C	B	A	C	A	B	C
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
A	C	B	C	A	B	A	A	B	A	C	B	A	B	A	C	B	A	C	A	B
27	28	29	30				25	26	27	28	29	30	31	25	26					
B	A	C	A				C	B	A	B	C	A	C	B	A					

July							August							September						
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
			1	2	3	4	5					1	2	6	7	8	9	10	11	12
			C	A	B	C	B					A	C	A	C	A	B	C	B	
6	7	8	9	10	11	12	3	4	5	6	7	8	9	7	8	9	10	11	12	13
C	B	A	C	A	B	C	A	C	B	A	B	C	A	B	A	C	A	B	C	A
13	14	15	16	17	18	19	10	11	12	13	14	15	16	14	15	16	17	18	19	20
A	C	B	C	A	B	A	B	A	C	A	B	C	B	A	C	B	C	A	B	A
20	21	22	23	24	25	26	17	18	19	20	21	22	23	21	22	23	24	25	26	27
B	A	C	A	B	C	B	C	B	A	B	C	A	C	B	A	C	A	B	C	B
27	28	29	30	31			24	25	26	27	28	29	30	28	29	30				
C	B	A	C	A			A	C	B	C	A	B	A	C	B	A				
							31													
							B													

October							November							December						
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
			1	2	3	4						1								
			B	C	A	C						A								
5	6	7	8	9	10	11	2	3	4	5	6	7	8	9	10	11	12	13		
A	C	B	C	A	B	A	B	A	C	A	B	C	B	A	C	B	C	A	B	A
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
B	A	C	A	B	C	B	C	B	A	B	C	A	C	B	A	C	A	B	C	B
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
C	B	A	C	A	B	C	A	C	B	A	B	C	A	C	B	A	C	A	B	C
26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31			
A	C	B	C	A	B		B	A	C	A	B	C	B	A	C	B	C			

Figure 182: Peak Demand Schedule

January 2025							February							March							
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	
			1	2	3	4							1							1	
			D	D	E	E							E							E	
5	6	7	8	9	10	11	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
E	D	D	E	E	D	D	E	D	D	E	E	D	D	E	D	D	E	E	D	D	
12	13	14	15	16	17	18	9	10	11	12	13	14	15	2	3	4	5	6	7	8	
D	E	D	D	E	E	D	D	E	D	D	E	E	D	D	E	D	D	E	E	D	D
19	20	21	22	23	24	25	16	17	18	19	20	21	22	16	17	18	19	20	21	22	
E	D	D	E	E	D	D	E	D	D	E	E	D	D	E	D	D	E	E	D	D	
26	27	28	29	30	31		23	24	25	26	27	28		23	24	25	26	27	28	29	
D	E	E	D	D	E		D	E	E	D	D	E		D	E	E	D	D	E	E	
														30	31						
														E	D						

April							May							June						
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5					1	2	3	1	2	3	4	5	6	7
		D	E	E	D	D						E	D	D	D	E	E	D	D	E
6	7	8	9	10	11	12	4	5	6	7	8	9	10	6	7	8	9	10	11	12
D	E	E	D	D	E	E	D	E	E	D	D	E	E	E	D	D	E	E	D	D
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
E	D	D	E	E	D	D	E	D	D	E	E	D	D	E	D	D	E	E	D	D
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
D	E	E	D	D	E	E	D	E	E	D	D	E	E	D	D	E	E	D	D	E
27	28	29	30				25	26	27	28	29	30	31	25	26					
E	D	D	E				E	D	D	E	E	D	D	E						

July							August							September						
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5						1	2	6	7	8	9	10	11	12
		E	D	D	E	E						E	E			D	D	E	E	D
6	7	8	9	10	11	12	3	4	5	6	7	8	9	7	8	9	10	11	12	13
E	D	D	E	E	D	D	E	D	D	E	E	D	D	E	D	D	E	E	D	D
13	14	15	16	17	18	19	10	11	12	13	14	15	16	14	15	16	17	18	19	20
D	E	E	D	D	E	E	D	E	E	D	D	E	E	D	E	E	D	D	E	E
20	21	22	23	24	25	26	17	18	19	20	21	22	23	21	22	23	24	25	26	27
E	D	D	E	E	D	D	E	D	D	E	E	D	D	E	D	D	E	E	D	D
27	28	29	30	31			24	25	26	27	28	29	30	28	29	30				
D	E	E	D	D			D	E	E	D	D	E	E	E	D	D				
							31													
							E													

October							November							December							
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	
		1	2	3	4							1				1	2	3	4	5	6
		E	E	D	D	E						D				E	E	D	D	E	E
5	6	7	8	9	10	11	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
D	E	E	D	D	E	E	D	E	E	D	D	E	D	E	D	D	E	E	D	D	
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20	
E	D	D	E	E	D	D	E	D	D	E	E	D	D	E	D	D	E	E	D	D	
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27	
D	E	E	D	D	E	E	D	E	D	D	E	E	D	D	E	D	D	E	E	D	D
26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31				
D	E	E	D	D	E		D	E	E	D	D	E	E	D	D	E	D	D	E	E	

STAFFING RELIEF FACTOR

For the Burnsville Fire Department to ensure 24/7 coverage, a calculation is used to determine a relief factor. This relief factor calculation quantifies the minimum amount of FTE's needed to cover one position 24/7. The relief factor takes into account a number of considerations such as the hours scheduled to work, and the actual hours worked after using benefit time such as vacation or sick time.

The relief factor does not take into account when the benefit time is used. There are cases when a staff member is on vacation and another staff member calls in sick, the Burnsville Fire Department may need more coverage than initially anticipated with the relief factor. The relief factor assumes coverage can be used to its maximum potential, which is not possible given the dynamics of unscheduled leave like sick time and injuries.

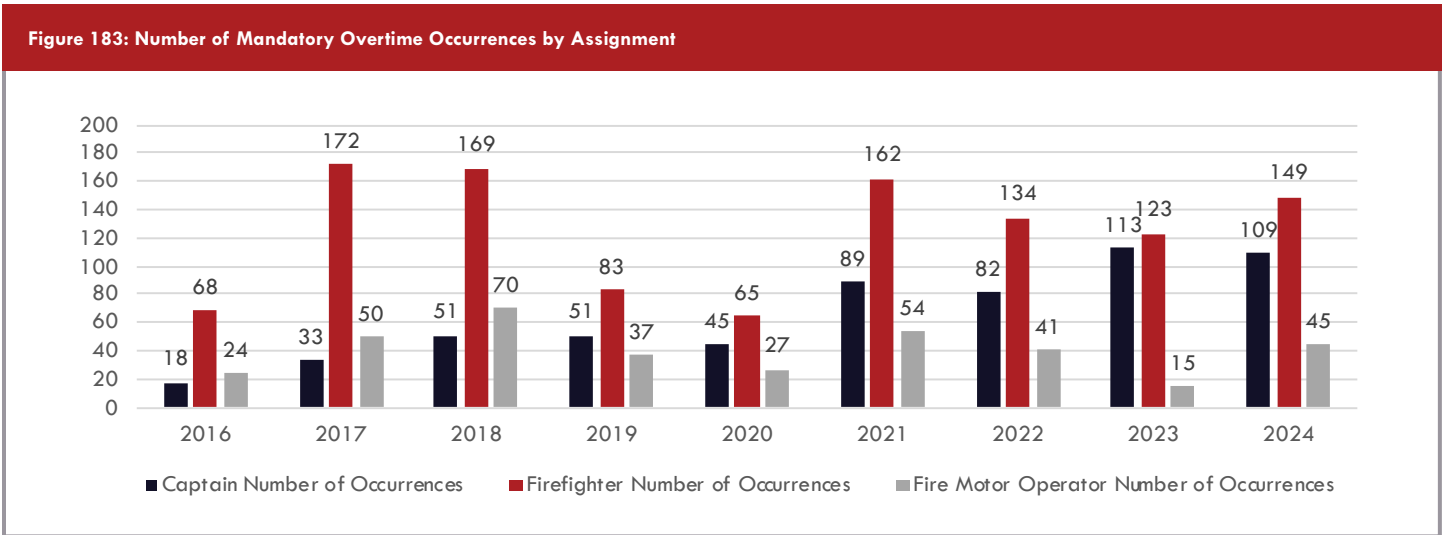
The Burnsville Fire Department's current relief factor is 3.7. This means that the Burnsville Fire Department needs a minimum of 3.7 FTEs for each position it wants staffed 24/7. For example, if an ambulance needs two personnel to operate 24/7, the Burnsville Fire Department would need 7.4 FTEs funded.



Because a relief factor calculates the minimum FTEs needed to cover a position 24/7, it can be used to determine the funding needed to cover those minimum staffing positions. There are times where it may be more prudent to use the funds to cover overtime rather than a position, such as covering a fraction of an FTE, as the training, equipment and other requirements would make it inefficient for hiring the coverage. The overtime created by this is a double-edged sword and should be monitored as it is important that there is a desire and capacity to work overtime without increasing the mandatory overtime.

The relief factor does not account for vacancies in the department.

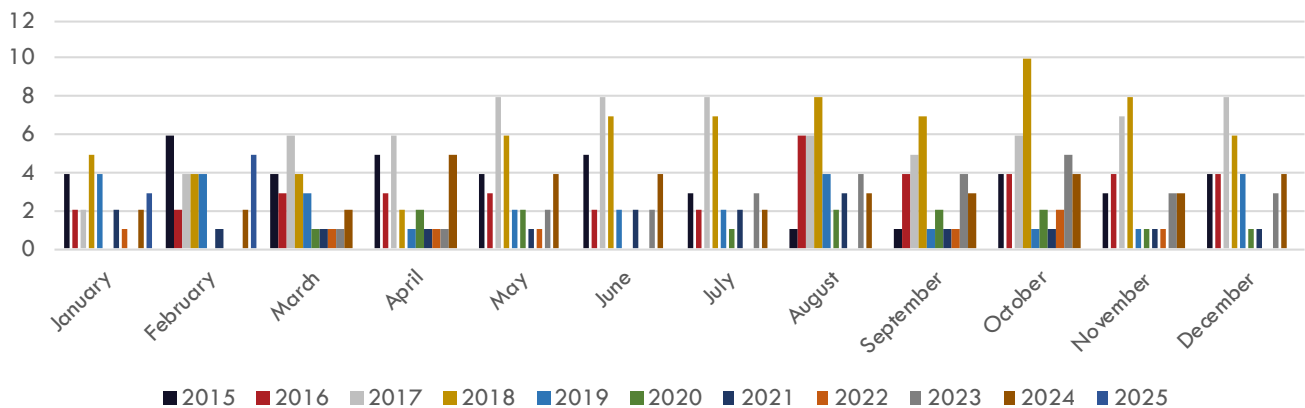
If staffing levels are not met, the Burnsville Fire Department uses voluntary and/or mandatory overtime to fill the void. Figure 183 below shows the number of occurrences of mandatory overtime through 2024. The Burnsville Fire Department is experiencing a growing number of mandatory overtime shifts, which forces staff to stay at work past the end of their shift or come in to work involuntarily on their day off.



Beginning in 2018, the Burnsville Fire Department began using new staffing software to fill positions and transitioned to filling all overtime in 12-hour blocks, rather than the previous method of filling it in 24-hour shifts.

Figure 184 below shows the number of firefighters that were not full duty by month. The number of non-full duty firefighters includes openings due to injury, illness, parental, caregiver and turnover. The chart shows that most months the Burnsville Fire Department is short of at least two firefighters with a peak of nine firefighters in October 2018.

Figure 184: Non-Full Duty Firefighters by Month



The Burnsville Fire Department has not been able to increase minimum staffing levels—just the opposite, as Burnsville Fire Department has experienced long-term staffing shortages. One technique used over the years to reduce overtime is to limit benefit time off. Minimum staffing levels continue to be the same at 11 from 8 a.m. - 8 p.m. and 9 from 8 p.m. - 8 a.m., but suppression personnel time-off requests are limited and denied when suppression levels fall to 12 from 8 a.m.- 8 p.m. and 10 from 8 p.m. - 8 a.m.

Normal staffing levels generally allow two shift personnel off per day but when staffing is limited, the allowable minimums to approve benefit time off become 10, meaning only up to one person can use benefit time off. When at 10-person staffing, personnel rely on shift trades more often as benefit time is not available to take. When the reduced allowable benefit time off has been enacted, it has lasted anywhere from a couple of months to two full years.

CALLBACKS

The Burnsville Fire Department relies on off-duty staff to respond back to callbacks when additional staff are needed for large and/or long incidents. The off-duty callback staff are used to assist on the scene and/or to staff the fire station while the on-duty crews are tied up on the active incident. The Burnsville Fire Department averaged 18 callbacks per year between 2015-2024. The average number of staff responding to the callback was two.

Figure 185: Callback Counts 2015–2024

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Callback Count	23	20	12	13	23	10	18	14	20	30
Average personnel attended	4.82	3.82	2.1	2.72	3.95	1.47	3.18	1.87	2.11	2.82

BENEFIT TIME USED

The Burnsville Fire Department uses overtime to ensure the minimum staffing level is met to ensure the community is served at the expected level. Training also accounts for overtime as some training cannot be conducted on duty. Factors that can affect the number of hours paid out include the number of days available to take off based on staffing levels or if members willingly opt to take a portion of holiday time to get paid out in lieu of time off. This is an additional benefit time that would require coverage if taken as time off.

Figure 186: Shift Staff Overtime by Hours — Includes Mandates

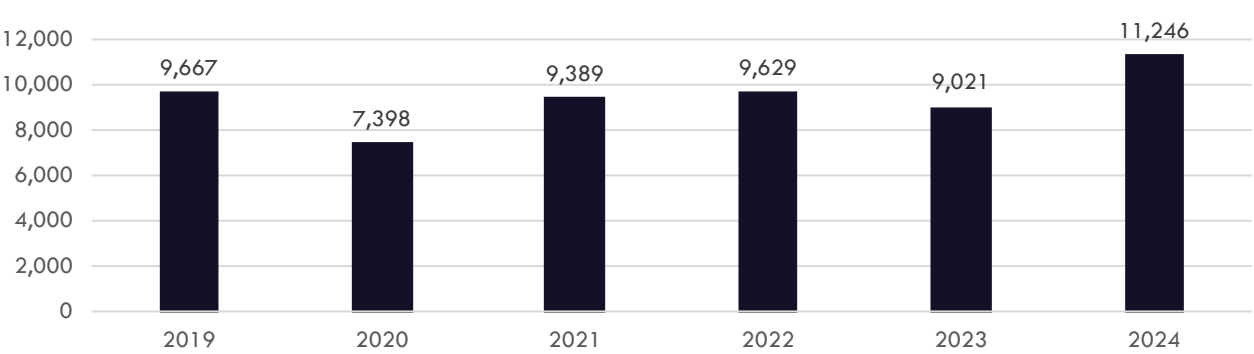


Figure 187: Shift Staff Holiday Hours Paid Out

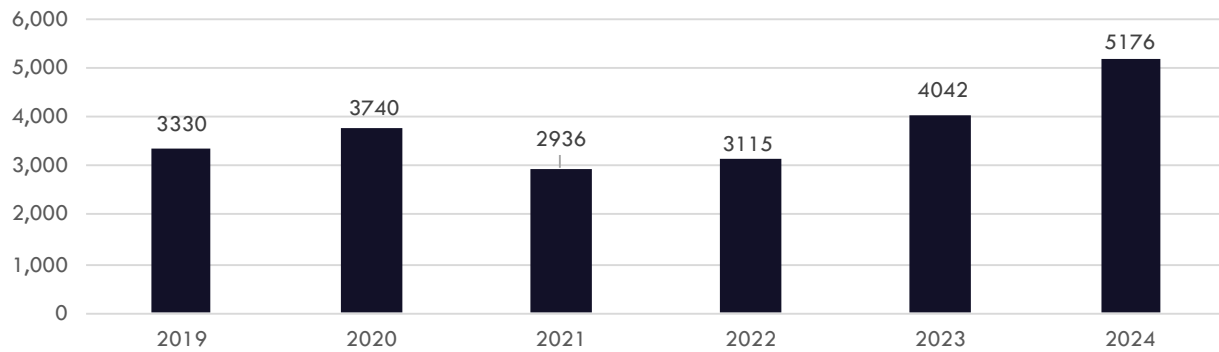
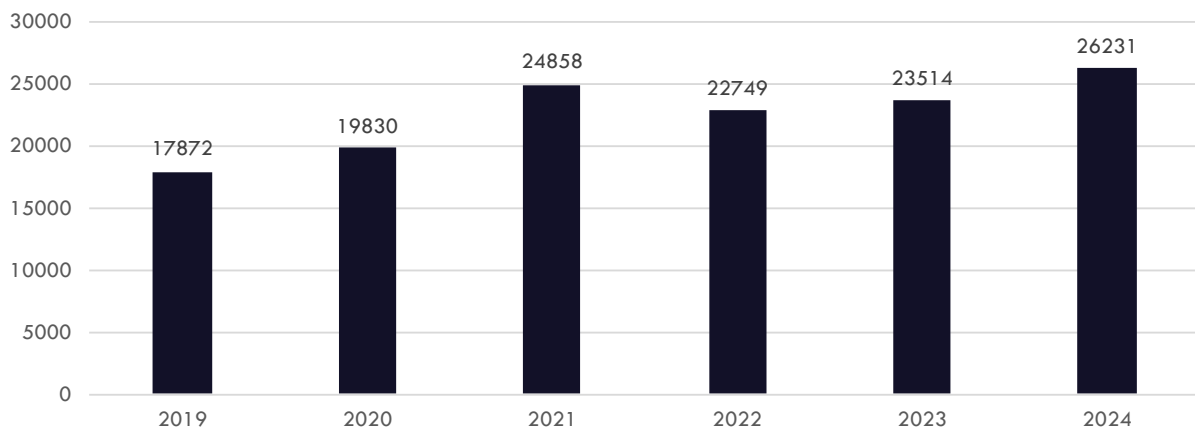
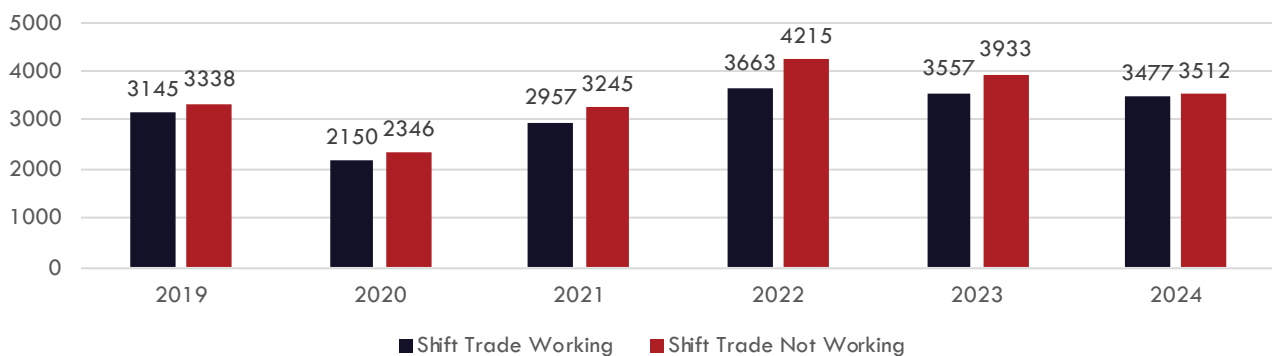


Figure 188: Shift Benefit Time-Off by Hours



(Includes Bereavement, Caregiver, Comp Time Used, Fitness, Vacation, Wellness, Holiday, IAFF Leave, Injury on Duty, Work Comp, FMLA, Sick, Emergency Paid Sick, Military)

Figure 189: Shift Trades by Hours



REVIEW OF SYSTEM PERFORMANCE

Shift trades require supervisor approval but are initiated and managed between employees. Shift trades are not required to be within the same pay period, or even year, therefore the amount of time worked and not worked may not be equitable if a trade of owed time is carried over between years. Prior to 2018, shift trades were not formally tracked in the payroll system so data is unavailable.

AVERAGE AGE AND TENURE OF STAFF

The average age within the Burnsville Fire Department is 36 years old. There are seven staff that are 50-59 years old and another eight that are between 40-49 years old. This will contribute to a consistent amount of turnover, which the Burnsville Fire Department has been experiencing. Over half of the staff have been with the Burnsville Fire Department for five years or less.

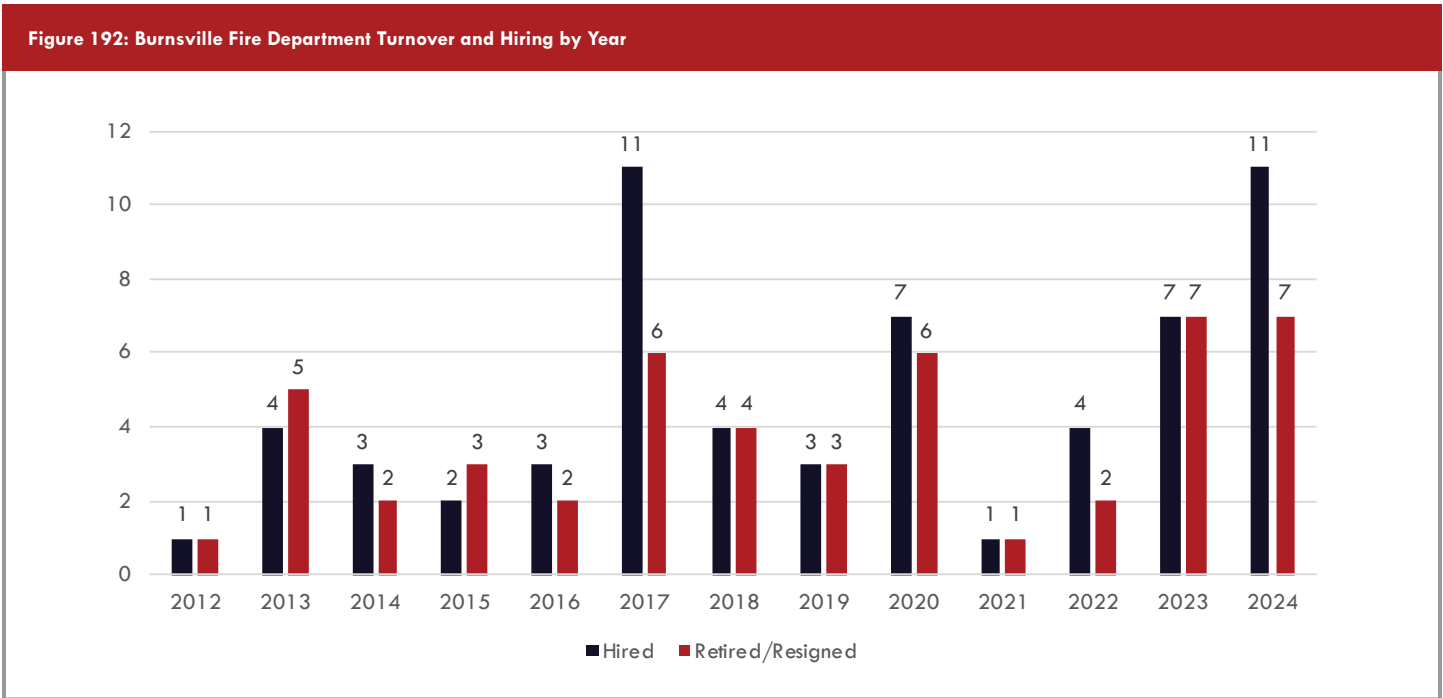
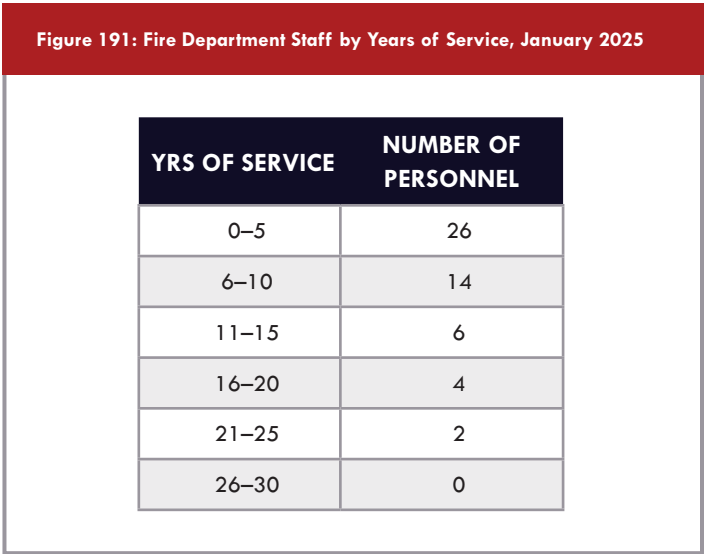
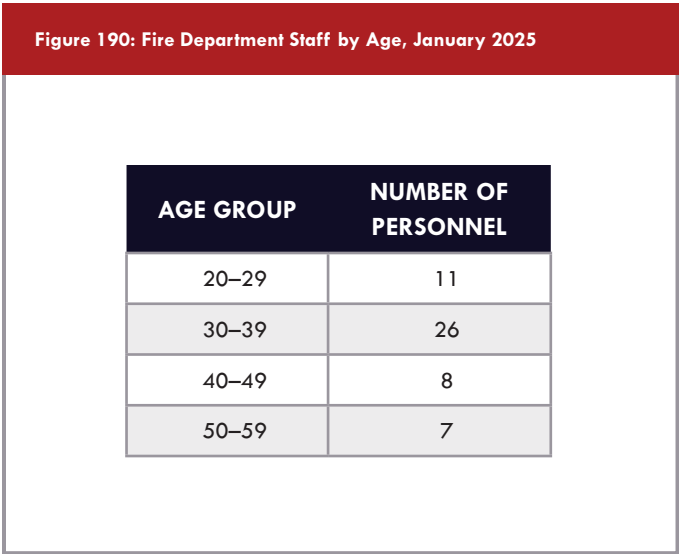
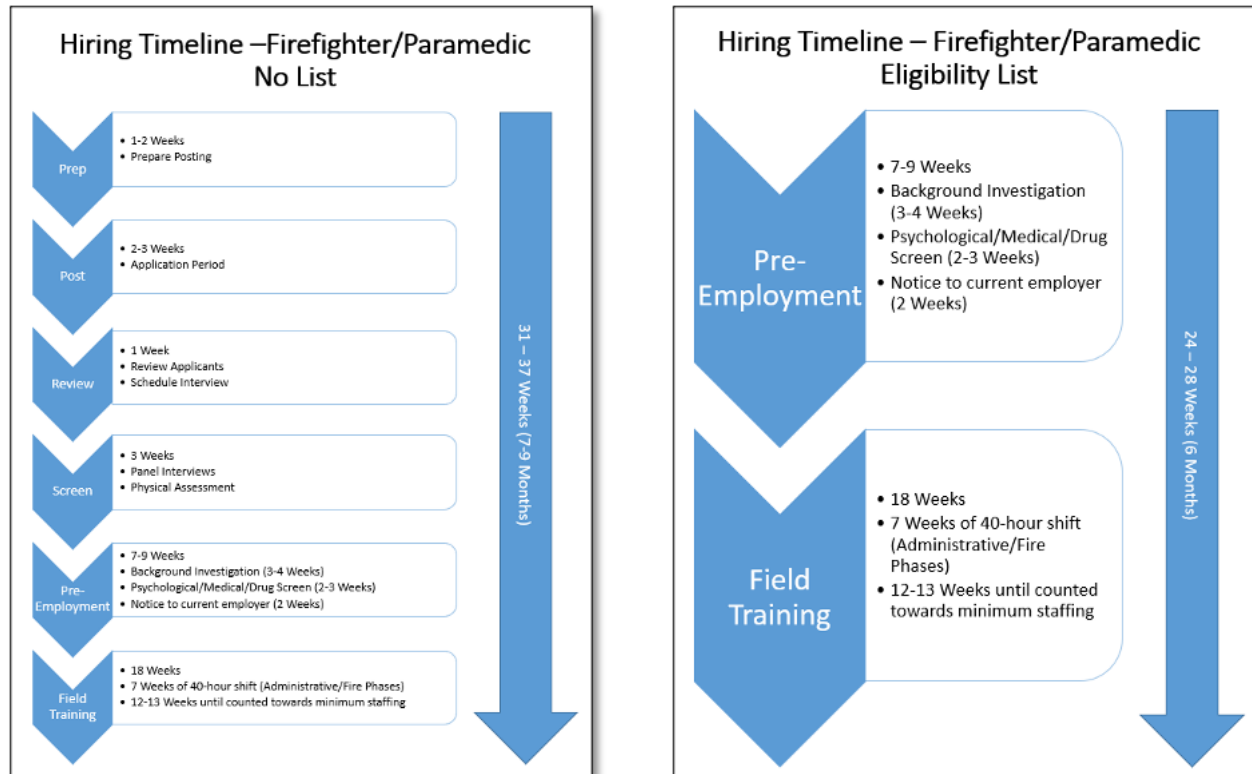


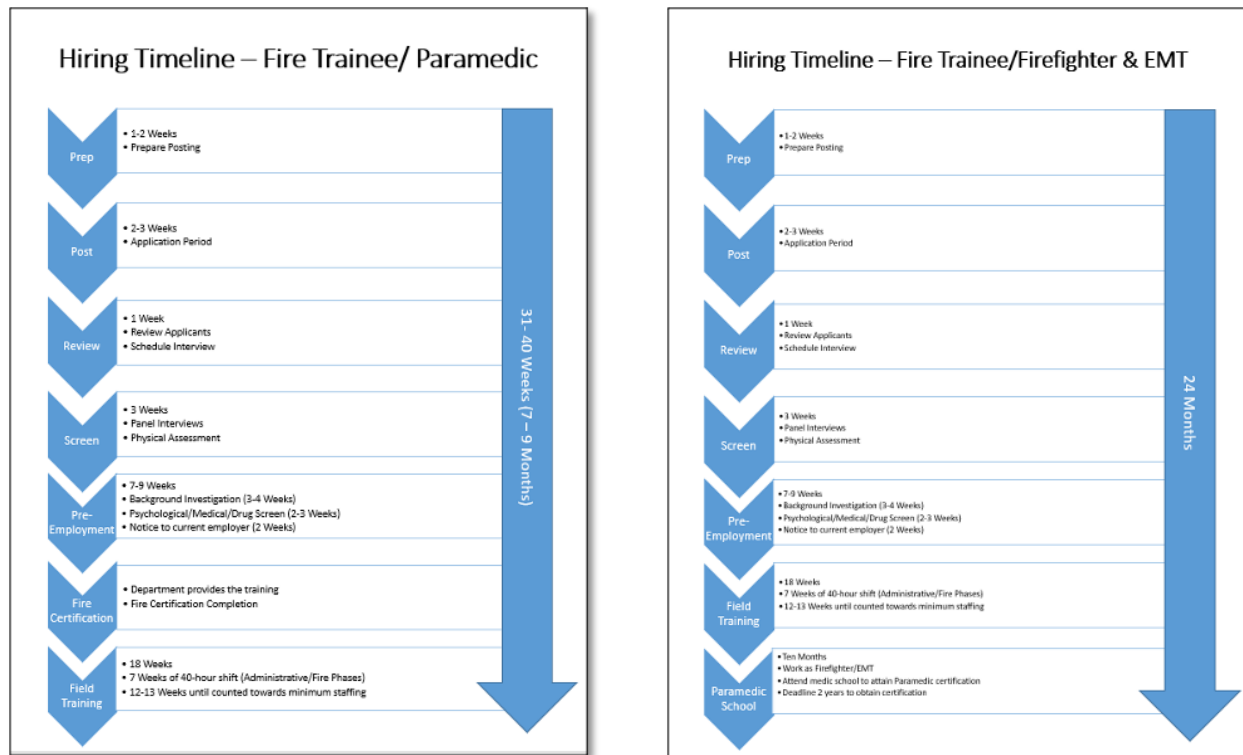
Figure 193: Turnover Timelines



The figures above depict the Firefighter/Paramedic timelines following a vacancy following the best-case scenario. The total time from preparing for hiring until the new staff member is fully trained and operational is 7-9 months.

The figures on the next page represent timelines for Fire Trainee/ Paramedic recruits that need Fire certifications. The timeline is for Fire Trainee/Firefighter & EMT recruits to attend paramedic school to earn Paramedic certification while working with the Burnsville Fire Department as a Firefighter/EMT. The Burnsville Fire Department assists the recruits with coordinating the training and school. The Burnsville Fire Department hired its first two Fire Trainee/ Firefighters & EMT in the Fall of 2024.

Figure 194: Certification Timelines



The first year's timeline for new hires of Burnsville Fire Department may differ depending on the qualifications hired. Each position will go through 18 weeks of extensive training that is broken into three phases.

Prior to Phase 1: Fire Trainee/ Paramedic recruits will go through Fire certification training; the Burnsville Fire Department will provide this training.

Phase 1: Seven-week (40 hours/week) academy in which a Field Training Officer (FTO) is taken off shift and works directly with recruit(s) on fire, rescue, and EMS skills. In 2019, Burnsville Fire Department joined the Eagan and South Metro Fire Departments in creating a joint academy that allows us to share equipment, instructors, and provide recruits with more partners to work with. Additionally, up to four Burnsville Fire Department members may come in to assist with hands on training or live burns as needed. In 2024, Lakeville Fire Department also joined the joint academy.

Phase 2: Recruits start working 24-hour shifts with an assigned FTO for six weeks in which they do not count towards minimum staffing. During this phase they get to take the hands-on skills acquired in the academy and combine them with life on shift and responding to calls. At the end of week eleven, a Major Performance Evaluation / Practical Readiness Evaluation (PRE) is done before recruits move to Phase 3. The recruit must display progress towards mastery of Burnsville Fire Department EMS protocols and Burnsville Fire Department

equipment, displaying the ability to perform independently as a Burnsville Firefighter/Paramedic. Due to a variety of skill levels and prior experience, extension of this phase is not uncommon. This can prolong the time counting towards minimum staffing levels by 3-4 weeks.

Phase 3: In this phase recruits work on refining their newly acquired skills in preparation of being out of field training and becoming a probationary member of the Burnsville Fire Department. Recruits stay on 24-hour shifts while starting a six-week rotation with an assigned FTO and now count toward minimum staffing. The 18 weeks end with a final Performance Readiness Evaluation (PRE) in which successful completion indicates the recruit can leave field training and become a probationary member of the Burnsville Fire Department. A probationary member no longer must work with an assigned FTO, can now respond to callbacks, take overtime voluntarily and is added to the mandatory overtime list. Fire Cadet recruits will not become probationary until paramedic certification has been obtained.

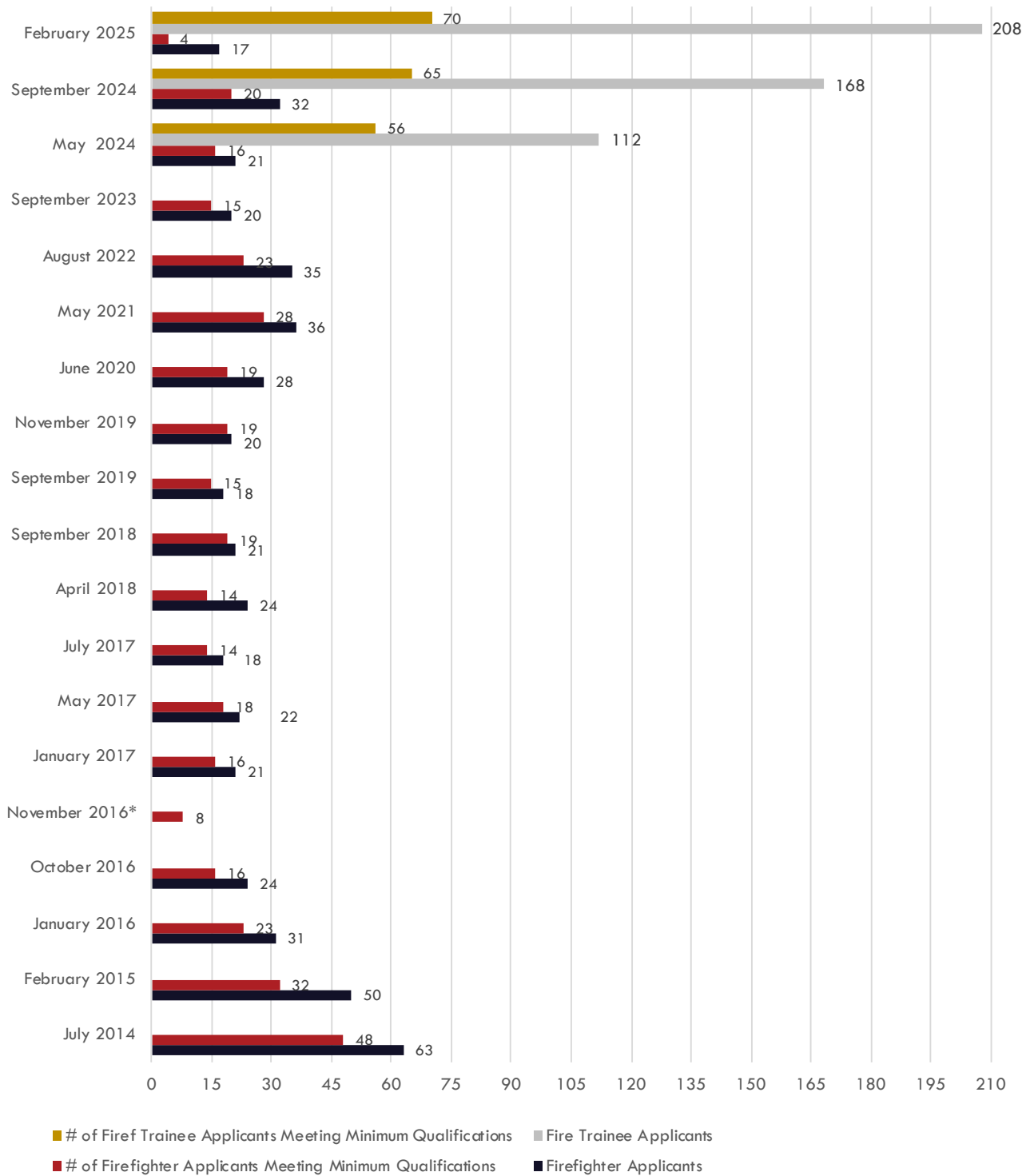
At the end of every day of the 18-week field training, the FTO and recruits sit down to evaluate progress, identify strengths and weaknesses, and determine future needs.



Figure 195 shows the trend of applicants since 2014. The Burnsville Fire Department has experienced a declining number of applicants, which is not unique to Burnsville. Recruitment challenges are being felt all over public safety agencies throughout the country. It is becoming more common for fire departments to hire and train frontline staff. Many of those programs are pathway programs that take those interested in a Fire/EMS career and train them all the way up to Firefighter/Paramedic.

In fall 2018, Burnsville High School began an EMT program, which the Burnsville Fire Department participates in. Burnsville Fire Department's involvement ranges from giving lectures and presentations and assisting with scenarios, to skill checkoffs and ride-along as a culmination of the program.

Figure 195: Number of Applicants 2014–2025



Due to declining applicant numbers, Burnsville Fire Department has modified applicant requirements to attract more applicants. In November 2016, applicants that originally did not meet minimum qualifications in the October 2016 posting due to incomplete certification submission were allowed to resubmit proper paperwork to be considered.

Beginning in 2018, the Burnsville Fire Department removed a requirement that required applicants to have a current Firefighter certification and replaced it with "I.F.S.A.C. Accredited Firefighter II Certification." By changing this requirement, it increased the potential applicant pool by allowing firefighters that have achieved certification but may be currently unaffiliated with a department. After seeing a need to further modify our requirements, in November 2019 minimum qualifications were adjusted again to state that certifications were required 'at the time of Background Check.' This allows applicants still in progress to complete their firefighter or paramedic certifications. In 2024, due to continued declining applicants, the Burnsville Fire Department began the first Fire Trainee program.



COMMUNITY RESPONSE HISTORY

The Burnsville Fire Department has seen a steady increase in the demand for its services. The most significant increase in demand has been in the EMS portion of service. This increasing EMS demand is not unique to Burnsville and has been a common experience across the country. It is likely that the Burnsville Fire Department will continue to see a steady rise in EMS service demand into the future.

Figure 196: Call Volume 2010–2024

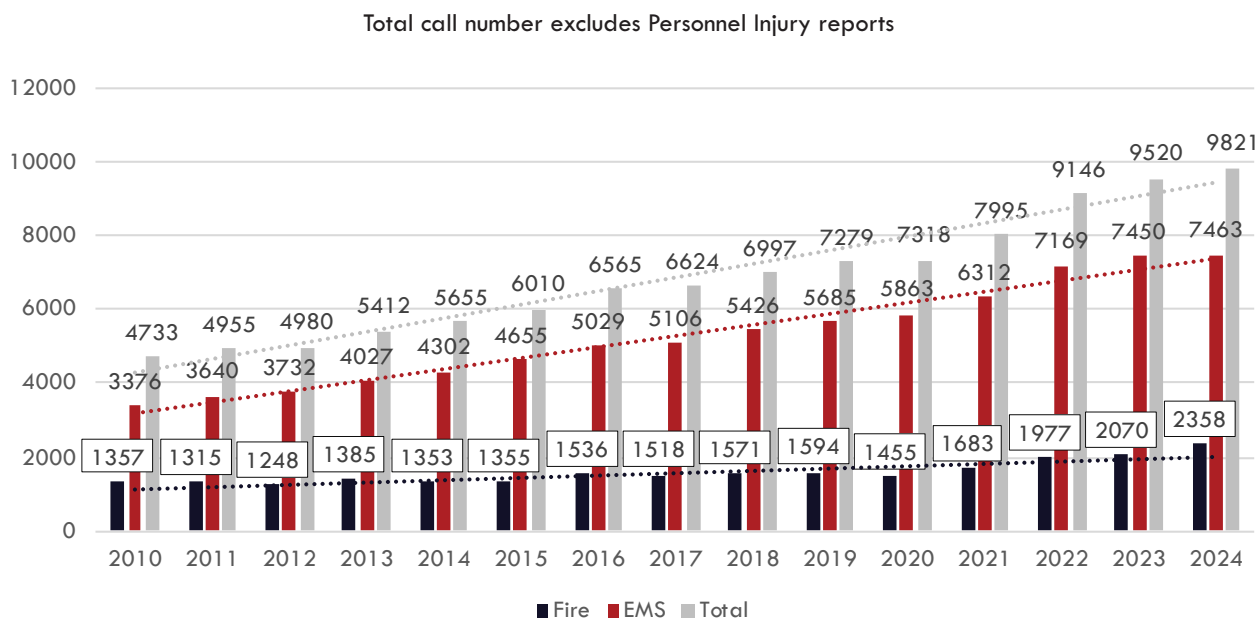
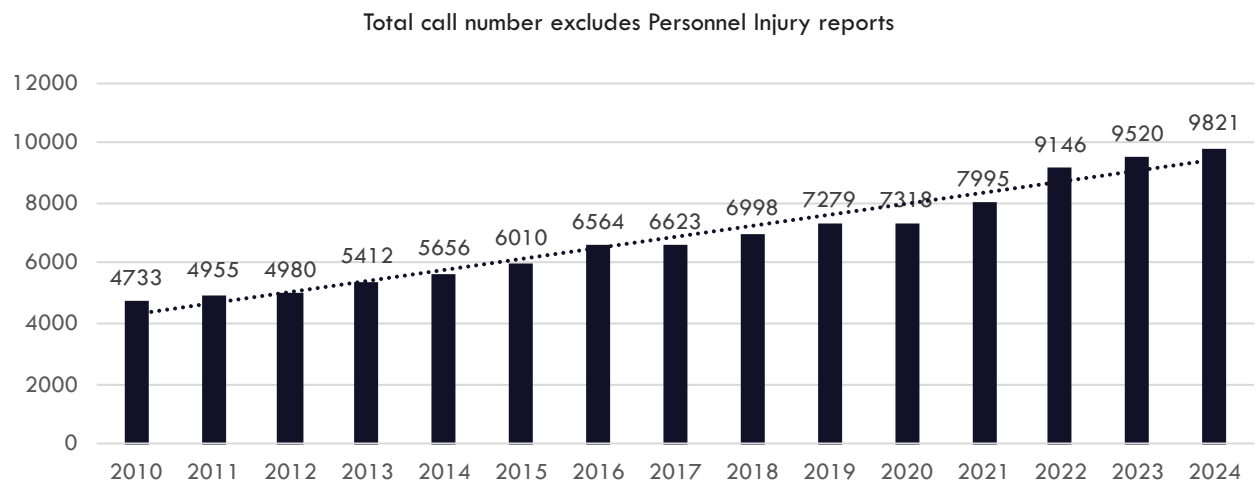
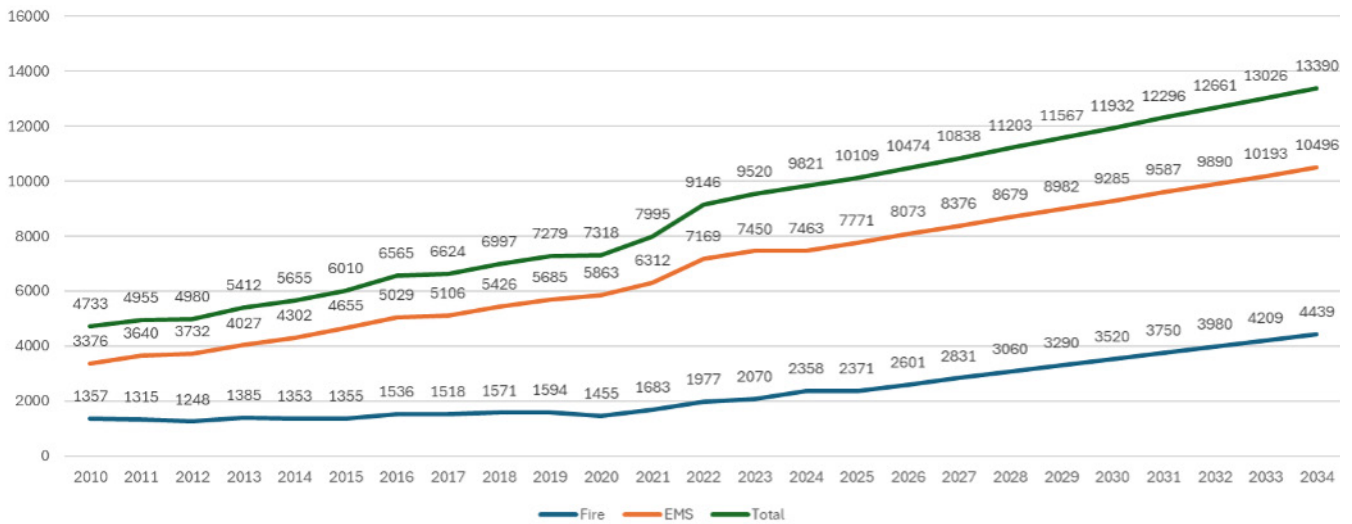


Figure 197: Total Calls for Service 2010–2024



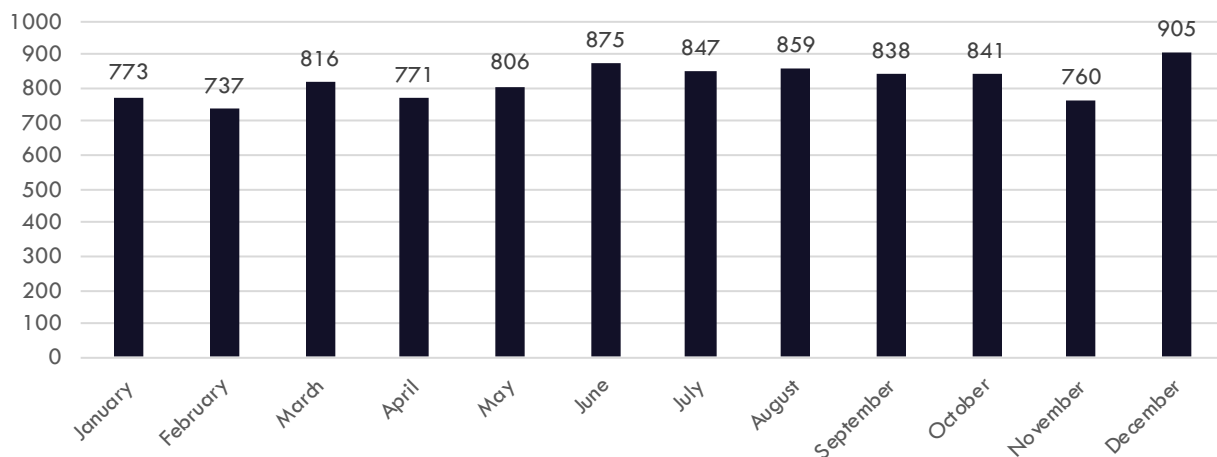
If the Burnsville Fire Department continues to experience the same increase in service demand in the coming years, requests will be approximately 10,000 calls for service in 2025. This increasing demand will strain the current resources and will overwhelm the current system, requiring a significant increase in the use of mutual aid.

Figure 198: Call Volume Forecast



The following graphs show the demand by month and incident category. The Burnsville Fire Department experiences some variation by month but not enough seasonal variation consistently to alter the staffing or service delivery model.

Figure 199: Total Incidents by Month 2024



REVIEW OF SYSTEM PERFORMANCE

Figure 200: Total Incident Percentage by Category 2024

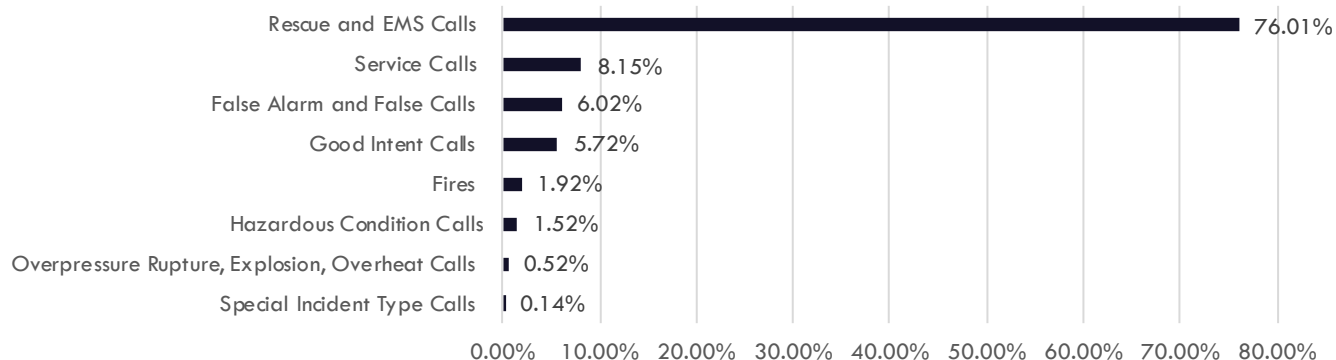


Figure 201: Incident Counts by Category and Month 2024

Special Incident Type Calls	0	1	3	2	2	0	2	2	1	0	1	0
Overpressure Rupture, Explosion, Overheat Calls	6	5	2	5	3	9	2	3	5	2	4	5
Hazardous Condition Calls	7	7	7	13	19	17	10	17	10	13	18	11
Fires	10	7	18	19	16	14	19	31	8	10	18	19
Good Intent Calls	30	44	50	46	60	44	57	46	46	41	50	48
False Alarm and False Calls	40	42	43	41	58	45	53	47	48	50	72	53
Service Calls	77	53	51	73	62	72	62	69	59	61	82	80
Rescue and EMS Calls	603	578	642	607	655	646	633	626	583	594	614	689
	January	February	March	April	May	June	July	August	September	October	November	December

EFFECTIVE RESPONSE FORCE

CONCURRENT INCIDENTS

Concurrent incidents measure the number of occurrences where the Burnsville Fire Department experiences more than one incident occurring at the same time before the original incident is completed. The following charts quantify the concurrent call occurrences. The Burnsville Fire Department can handle a different number of concurrent incidents based on the time of day and criticality of the incidents.

For example, during the day the Burnsville Fire Department could handle two critical medical calls and one low acuity medical simultaneously without any available resources readily available for the next incident. Overnight the Burnsville Fire Department would not be able to handle all those incidents as only two ambulances are staffed.

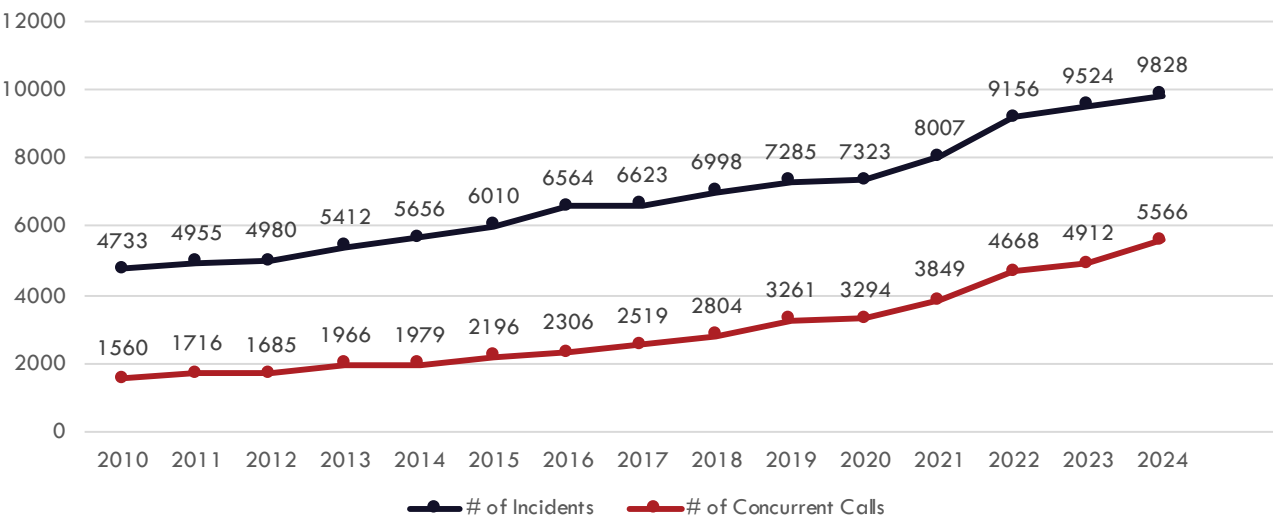
The graphs below depict the growing number of concurrent incidents the Burnsville Fire Department is experiencing as the demand for service continues to increase.

Figure 202: Computed Aid Dispatch Log April 2, 2024, Concurrent Calls

Units	Priority	Problem	Agency	City	Response Date
BME2	3	6C-Breathing Problems	Dakota Fire	BURNSVILLE	04/02/2024 14:15:27
AL2, BEN2, BME1	5	12A-Convulsions/Seizures	Dakota Fire	BURNSVILLE	04/02/2024 14:31:20
AL2, BEN1, BME1	5	26A-Sick Person	Dakota Fire	BURNSVILLE	04/02/2024 14:39:29
AL3, BALL	5	25A-Psychiatric/Suicide Att	Dakota Fire	BURNSVILLE	04/02/2024 14:39:46
BALL1, BME2, MHE11	4	17B-Falls	Dakota Fire	BURNSVILLE	04/02/2024 14:40:34
AL1, BEN2, BME1	2	12D-Convulsions/Seizures	Dakota Fire	BURNSVILLE	04/02/2024 14:48:22

Concurrent calls can also have an impact on the reliability of units to respond to resource driven incidents like structure fires. As multiple units are unavailable at the same time, it places a higher demand on mutual aid partners to fill the necessary roles.

Figure 203: Incident and Concurrent Call Counts



*Mutual Aid Fire and EMS Coverage for Approximately 3 Weeks in 2024 due to LODD.

Figure 204: Total Concurrent Incidents by Year

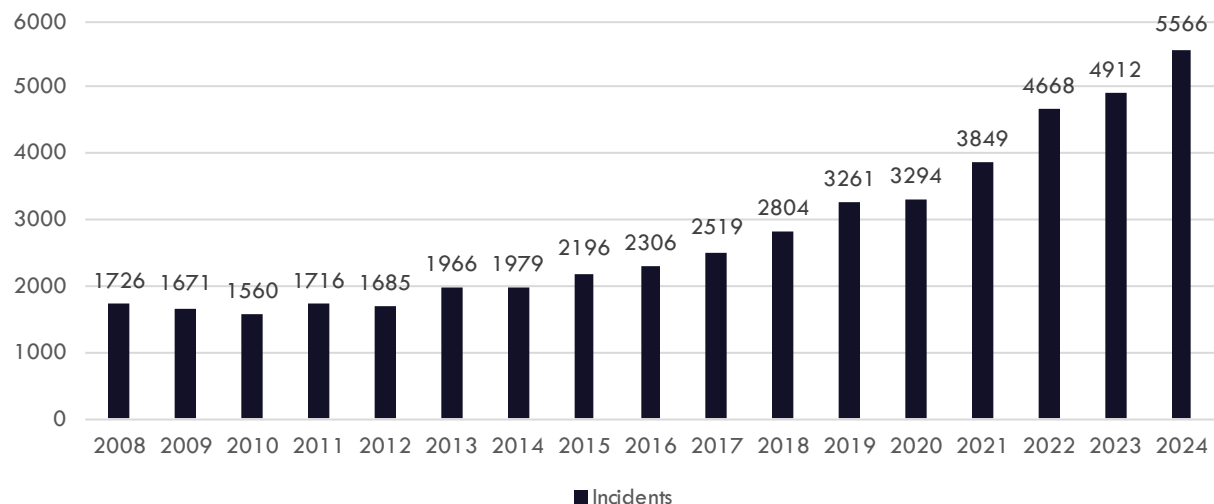


Figure 205: Two Concurrent Incidents by Year

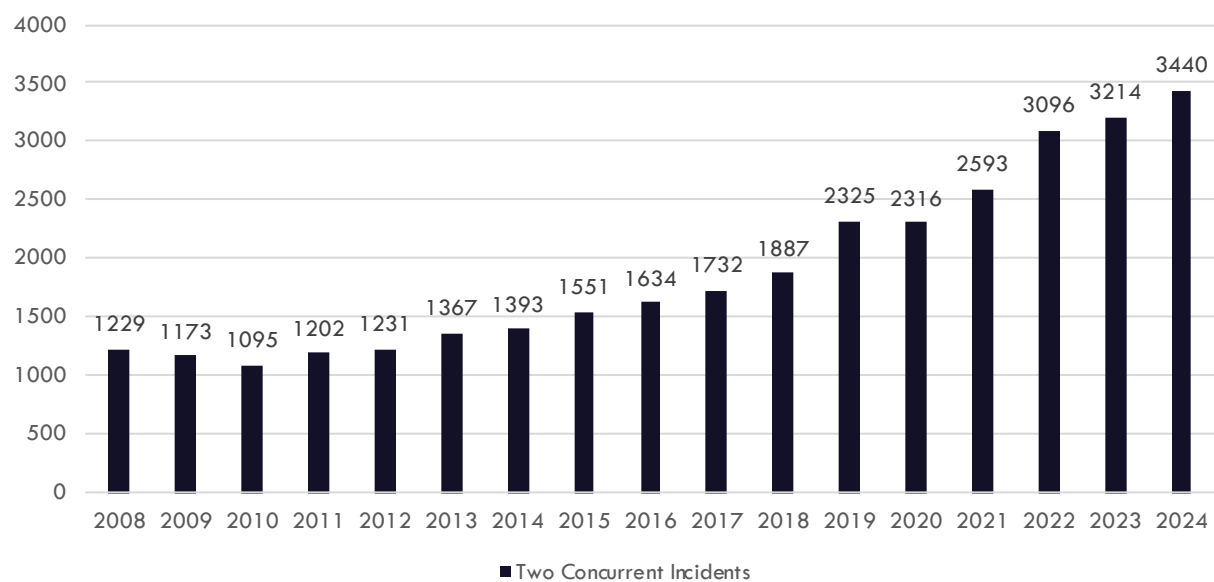


Figure 206: Three Concurrent Incidents by Year

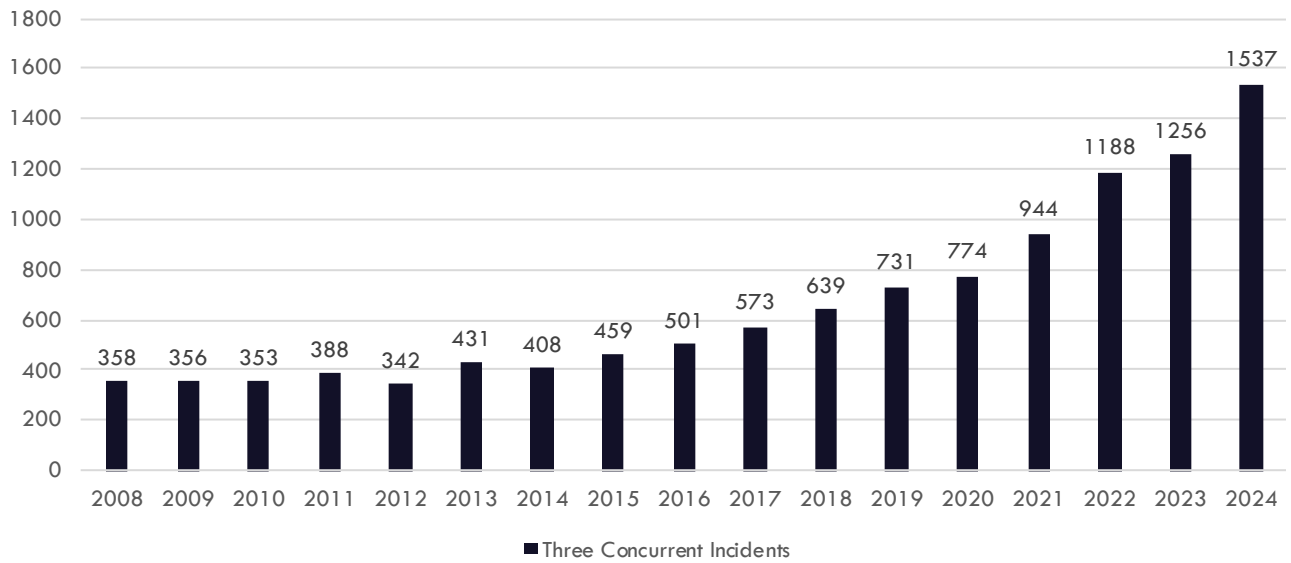


Figure 207: Four Concurrent Incidents by Year



Figure 208: Five or More Concurrent Incidents by Year

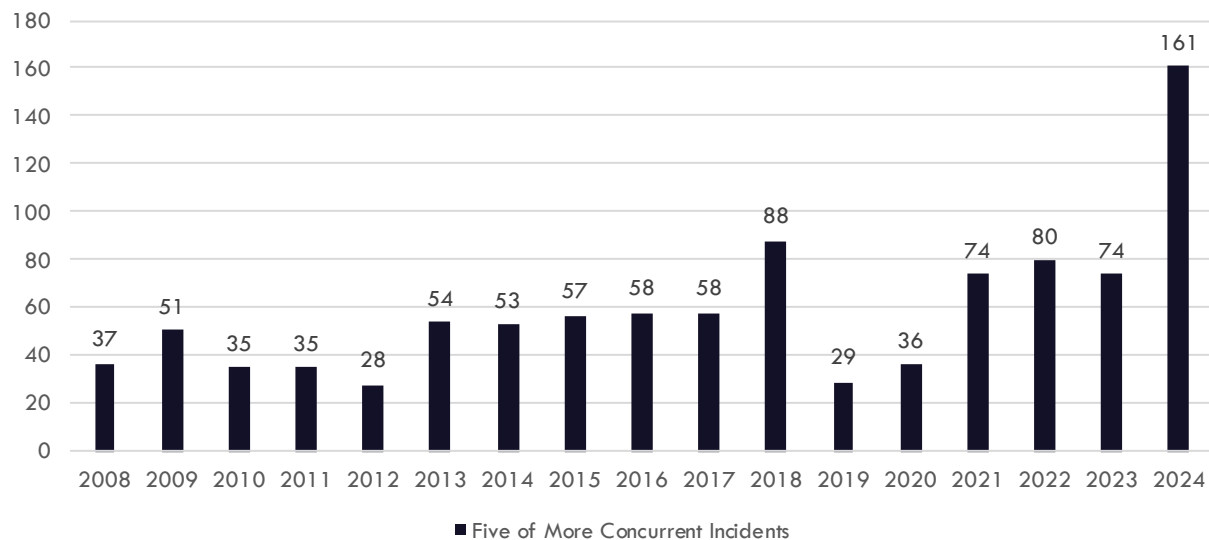
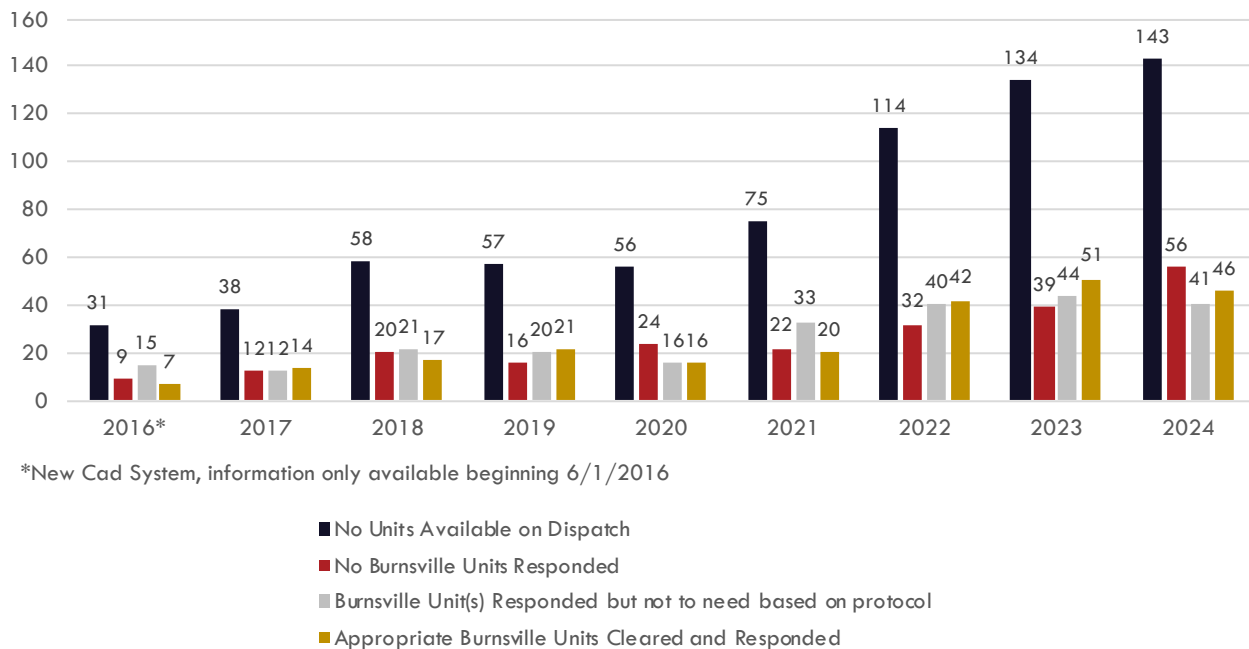


Figure 209: Incidents with No Burnsville Fire Department Resources Available



These calls were above our current resource allocation and required mutual aid to be requested to respond on our behalf. These mutual aid incidents likely received longer response time, and the resources did not fulfill the response protocol.

EFFECTIVE RESPONSE FORCE CAPABILITIES

The figure below depicts the different operational levels needed during an incident. The current staffing arrangement expects the Fire Captains to operate on all three levels simultaneously (task, tactical and strategy levels). Given the staffing levels, many times firefighters are expected to operate at both the task and tactical levels as well. Having staff operate at many levels at once creates an ineffective situation where they must make decisions such as fighting the fire or rescuing a victim. It is important for staff to have important situation awareness to make sound decisions or to engage in the operation to accomplish critical tasks, which are not feasible when operating at multiple levels at once.

Figure 210: Four Concurrent Incidents by Year



The task-level staff have approximately a six-foot radius of awareness, while tactical-level staff have about a 60-foot radius of situational awareness, and strategic level staff are aware of the entire incident.

Task-level challenges unique to interior firefighting include extreme heat, limited visibility, limited communication (both face to face and over the radio), decreased mobility due to personal protective equipment, increased physical exertion, and limited air supply creating time restraints to complete tasks. When fewer staff are available, firefighters and/or Fire Captains are required to overcome all these obstacles while also acting in a tactical and sometimes strategic role as well, such as monitoring multiple radio channels and providing assignments for incoming units.

Captains sometimes operate in a “Fast Attack” mode, which encompasses all three levels at once, when the potential benefits outweigh the risks. The next arriving officer, Captain or Chief, would then establish a stationary command to take over the strategic and some tactical supervision, which improves radio communications and crew accountability.

When available staffing levels are increased, the interior crew size can be increased to three, which allows Fire Captains to act as company officers. The role of a company officer is to function on a tactical level by not physically being involved in task level responsibilities, allowing them to have a clearer overview of radio communications, assignments, and occupancy and crew safety.

As staffing levels are increased closer to ideal, interior crews are added to expand the level of tasks accomplished simultaneously, which can improve occupant safety and limit fire spread. It also allows for the availability of crews to be exterior, which can be crucial in the case of a rescue or a mayday scenario. Exterior crews are generally still used to assist with tasks while they’re awaiting their interior assignment. As the incident grows, division supervisors are added, which improves the span of control and tactical oversight.

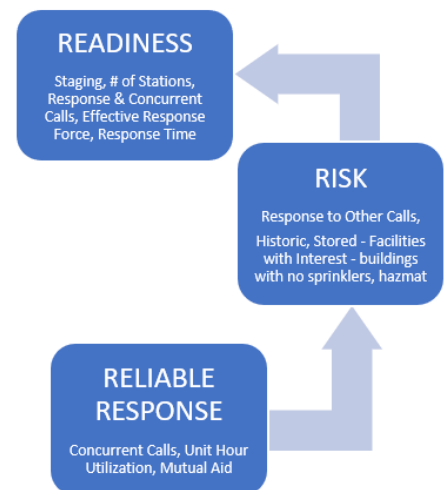


Figure 211: Effective Response Force Building Blocks

Figure 212: NFPA 1710 Response Time Algorithm

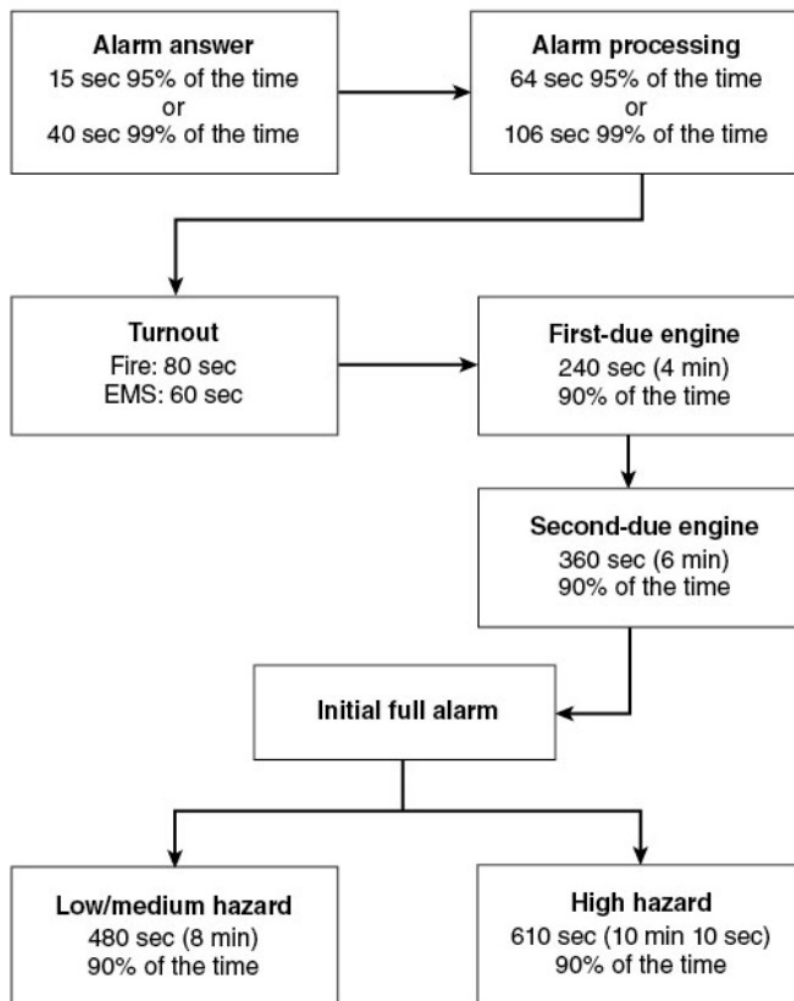


Figure 214: Fire Incidents Recommended Effective Response Force Tasks, continued

Vehicle Extrication

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
Division /Group Supervisor	1		1	1
EMS	2		2	2
Fire Control	1		1	1
Incident Commander	1		1	1
Logistics	1		1	1
Patient Stabilization	1		1	1
Rescue Team	2		2	2
Total	9	NA	9	9

Structure Fire - Single Family (Blue Highlight indicates Mutual Aid Staff)

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
Apparatus Operator	1	1	1	1
Division /Group Supervisor	1		1	1
EMS	2		2	2
Fire Control / Search and Rescue	4	8	6	4
Incident Commander with Aid	2	1	1	2
Ready Reserve (OSHA Required)	2	4	3	2
Ventilation/Water Supply / Utilities	1	2	1	1
Total	13	16	BFD 12 & MA 3	13

Structure Fire - Multifamily (Single Unit) (Blue Highlight indicates Mutual Aid Staff)

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
Apparatus Operator	2	3	1	2
Division /Group Supervisor	2		1	2
EMS	2	2	2	2
Fire Control / Search and Rescue	6	14	6	6
Incident Commander with Aid	2	2	1	2
Ready Reserve (OSHA Required)	2	4	3	2
Ventilation/Water Supply / Utilities	2	3	1	2
Total	18	28	BFD 12 & MA 3	18

Figure 215: EMS Incidents Recommended Effective Response Force Tasks

EMS - Low Acuity (Omega Response)

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
ALS /BLS Evaluation	1		1	1
Patient Removal/Logistics	1		1	1
Total	2	NA	2	2

EMS - Low Acuity (Alpha Response)

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
ALS /BLS Evaluation	1		1	1
Patient Removal/Logistics	1		1	1
Total	2	NA	2	2

EMS - Medium Acuity (Bravo Response)

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
ALS /BLS Evaluation	1		1	1
Patient Removal/Logistics	1		1	1
Total	2	NA	2	2

Figure 215: EMS Incidents Recommended Effective Response Force Tasks, continued

EMS - Medium Acuity (Charlie Response)

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
ALS Evaluation/Lead	1		1	1
EKG Monitor	1		1	1
IV Access/ Medication Administration	1		1	1
Airway Management	1		1	1
Patient Removal/Logistics	1		1	1
Total	5		5	5

EMS - High Acuity (Delta Response)

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
ALS Evaluation/Lead	1		1	1
EKG Monitor	1		1	1
IV Access	1		1	1
Medication Administration	1		1	1
Patient Removal/Logistics	1		1	1
Total	5		5	5

EMS - Critical Acuity (Echo Response) (Blue Highlight indicates Mutual Aid Staff)

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
ALS Evaluation/Lead/Online Physician	1		1	1
EKG Monitor	1		1	1
IV/IO Access/ Medication Administration	1		1	1
Airway	2		1	2
Patient Removal/Logistics	1		1	1
CPR (PD)	1		1	1
Communicating with Family (PD)	1		1	1
Total	8		BFD 5 & MA 2	8

The following three figures represent a visual of NFPA 1710's recommended effective response force for single family residential structure fires for a 2,000 square foot home, without a basement, and with no exposures. Structures larger than 2,000 square feet, with basements, and/or with exposures require additional minimum resources.

In the below figures, there are three different depictions of possible response scenarios given the current staffing strategy, both daytime and night-time response if all resources are available and a day/night-time response if only engines are available. As noted earlier, there are many possible scenarios of resource availability based on call volume, concurrent calls, and call type/severity. Based on concurrent calls alone, in 2024 there was a 55% likelihood of at least one additional call occurring at the same time, taking at least one unit (two or more responders) out of the possible response. Also, more than half of all calls required at least two units to respond based on response protocols.

The helmets represent the Fire Department's current staffing levels based on the scenarios and the red circles around the firefighters are positions that the current staffing model is unable to fill based on each scenario.

Figure 216: 11 Personnel Available for Structure Fire

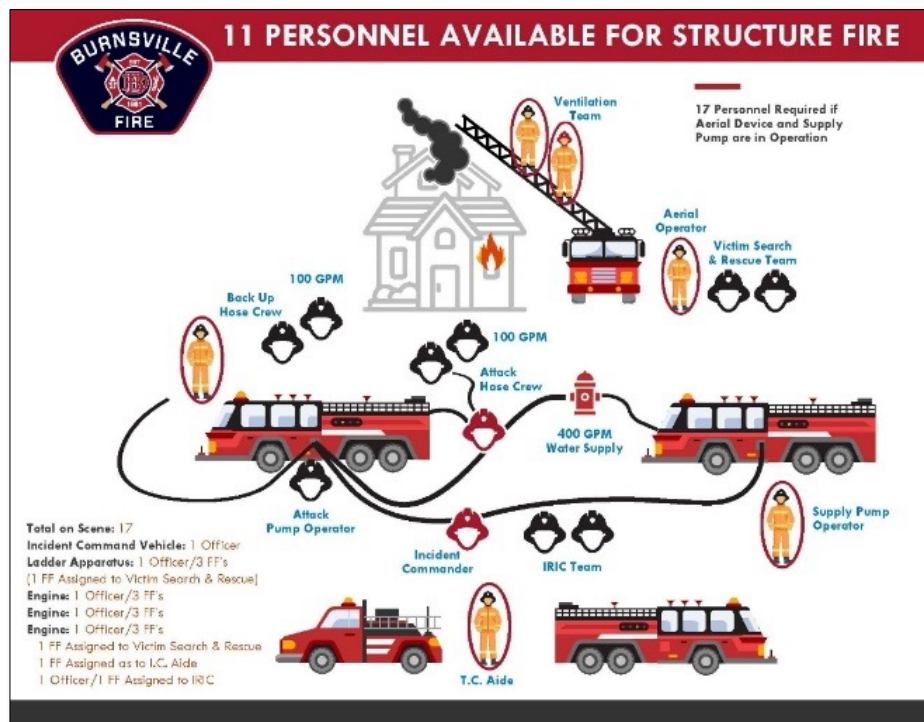


Figure 217: 9 Personnel Available for Structure Fire

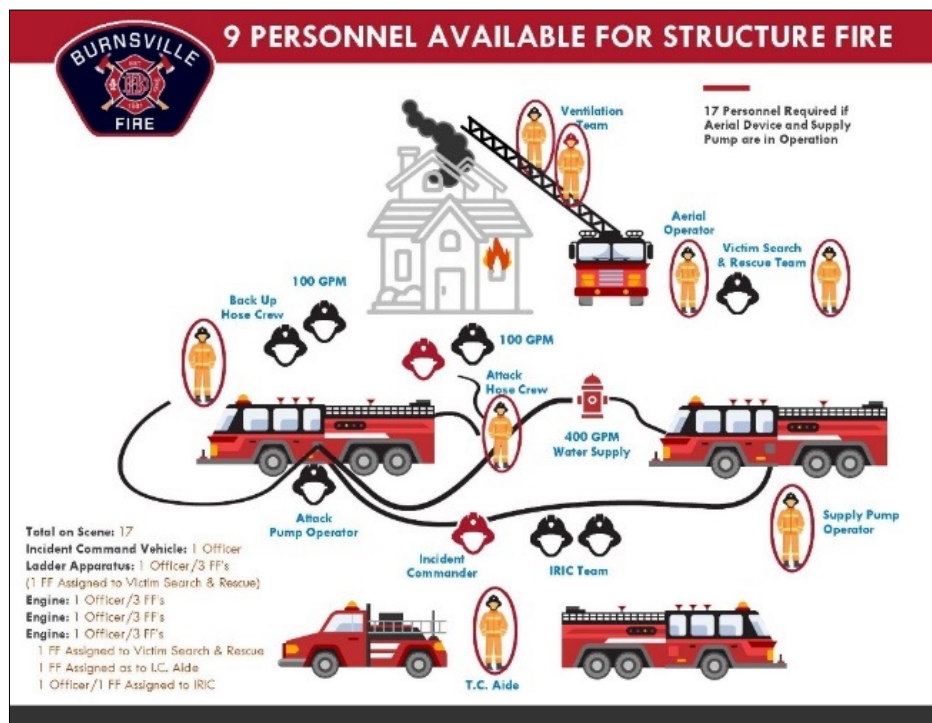
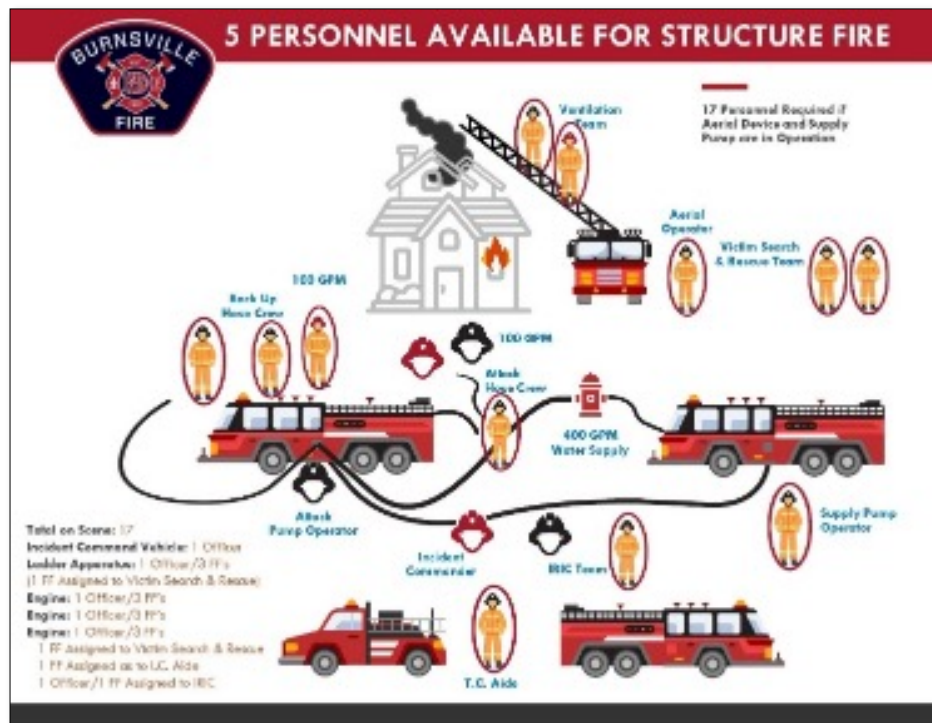


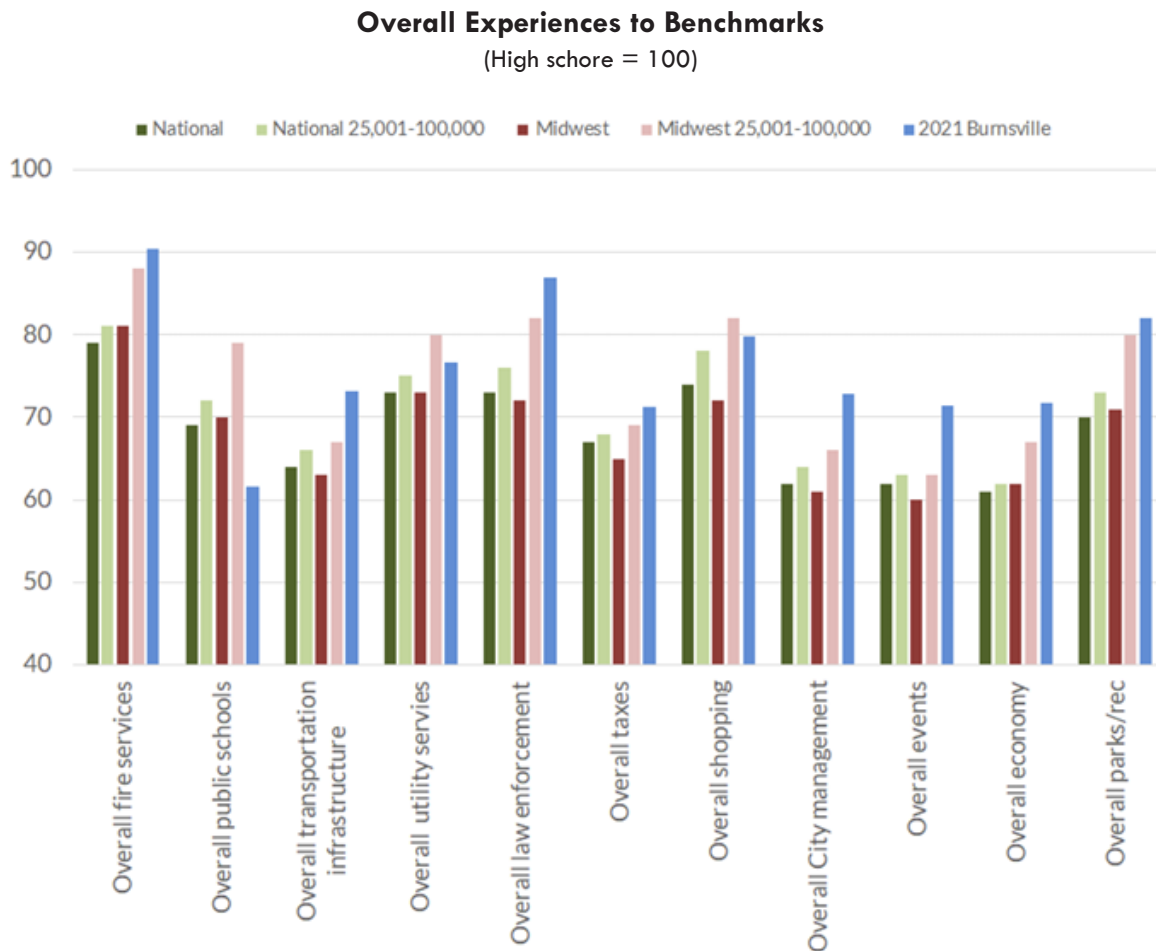
Figure 218: 5 Personnel Available for Structure Fire



COMMUNITY EXPECTATIONS & PERFORMANCE

The Burnsville Fire Department strives to meet the community and Burnsville City Councils' expectations. To get feedback from stakeholders on the Burnsville Fire Department's performance, a few tools are used. First, the Burnsville Fire Department gets quantitative information from both the regularly conducted City of Burnsville residential and business surveys and from a random sample of patients using vendors with survey expertise. The Burnsville Fire Department regularly receives very positive results from the survey tools. The Burnsville Fire Department also receives qualitative feedback from stakeholders during interactions with them. The quality of feedback the Burnsville Fire Department staff receives is also very positive.

Figure 219: Residential Survey Service Priority 2021



CobaltCommunityResearch.org July 2021 Presentation to Council

Figure 220: Residential Survey Service Ratings 2021

Preserving Voice: Looking Into Detail

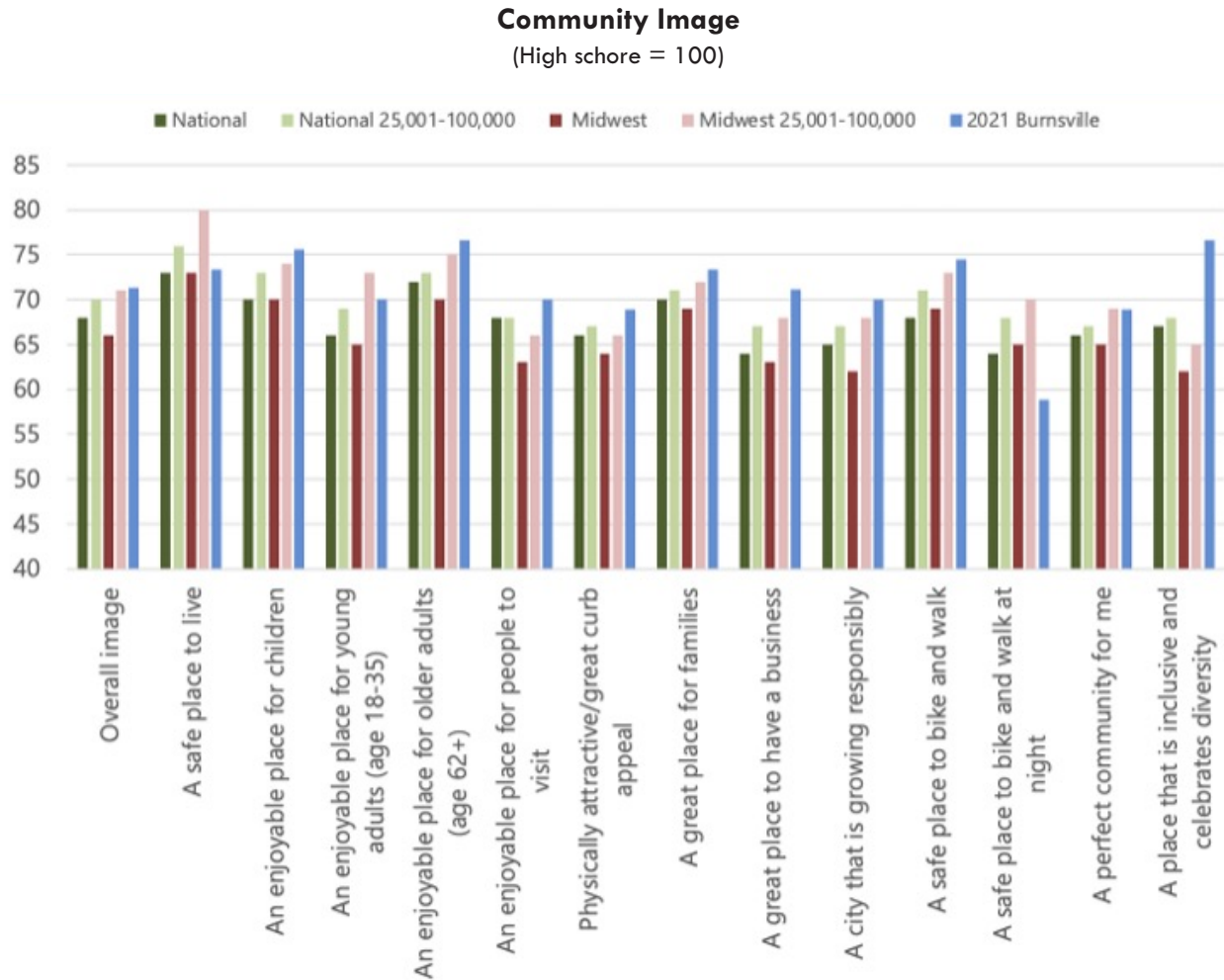
		Utility Services					Law Enforcement			
		Overall utility services	Drinking water quality	Garbage, recycling and yard waste disposal service	Ease of paying City utility bills	Snow management on trails and sidewalks	Street lighting	Overall law enforcement	Respectful treatment of residents	Fair and equitable enforcement
2021 Burnsville, Minnesota Rating Questions Response Count 365, +/- 5.1%										
Overall		77	63	82	88	77	73	87	88	87
Length of Residency	One year or less*	74	68	84	87	62	69	81	81	78
	1-5 years	74	52	82	86	81	68	91	91	89
	6-10 years	79	68	83	91	78	73	92	91	93
	More than 10 years	78	66	82	90	76	76	87	88	87
Own/ Rent	Own	76	62	81	90	76	73	88	88	88
	Rent/Lease*	79	67	91	77	84	78	93	93	90

↑
Checked Scores
that Vary by
Demographics

↑
Consistent Scores
Regardless of
Demographics

CobaltCommunityResearch.org July 2021 Presentation to Council

Figure 221: Residential Survey Public Safety Feedback 2021



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Figure 222: EMS Survey Responses Executive Summary for December 2024

(EMS Survey Team Patient Experience Report December 2024)

Executive Summary

Your overall score for the period selected is **93.35**, a difference of **-0.07**, compared to your score from the previous year, **93.42**.

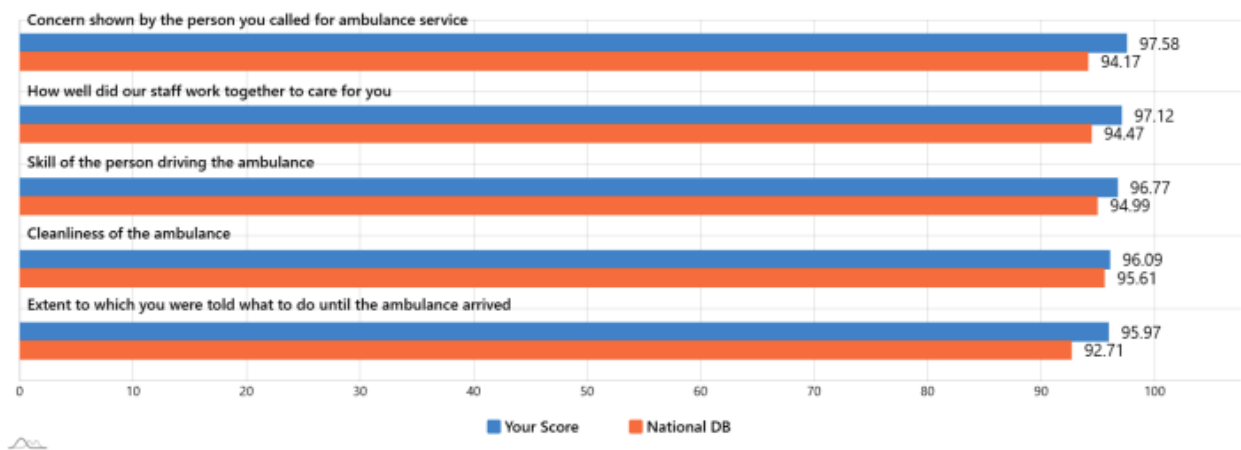
Your overall Top Box score, which represents the percentage of the highest possible rating Very Good, is **81%**.

In addition, your rolling 12- month score of **95.62** is a difference of **+2.45** from the national database score of **93.17**.

When compared to all organizations in the national database, your score of **95.62** is ranked **13rd**.

Highest and Lowest Scores

5 Highest Scores



5 Lowest Scores

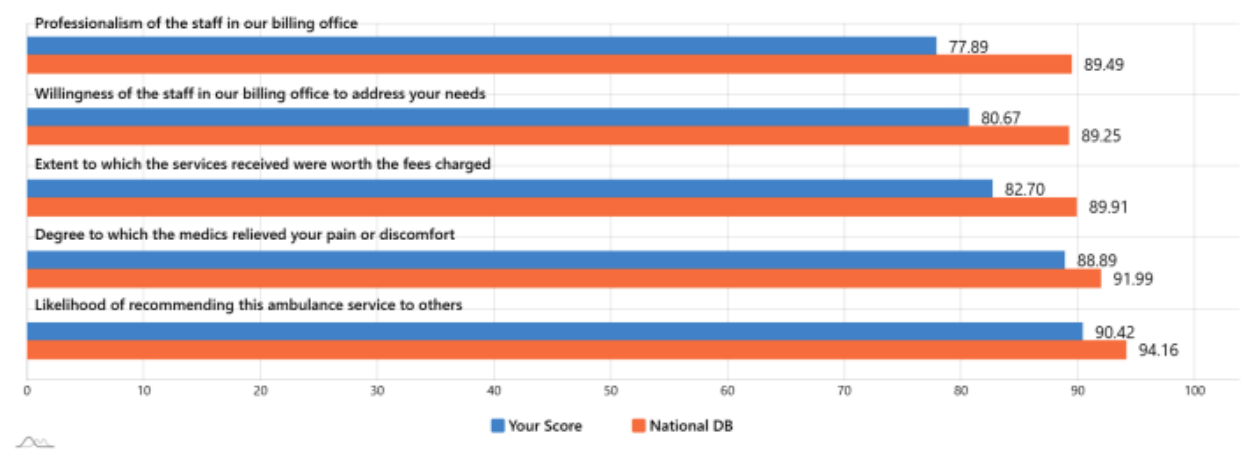


Figure 223: Annual EMS Performance Responses

Question Analysis

This report shows your current score for the time period selected compared to the corresponding previous time period and the change between the two periods. The national DB score is included for reference.

Dispatch Composite

	Current	Previous	+/-	National DB
Helpfulness of the person you called for ambulance service	94.35	-0.01	94.36	94.25
Concern shown by the person you called for ambulance service	97.58	+4.35	93.23	94.17
Extent to which you were told what to do until the ambulance arrived	95.97	+2.74	93.23	92.71
Overall Composite Score	95.97	+2.36	93.61	93.71

Ambulance Composite

	Current	Previous	+/-	National DB
Extent to which the ambulance arrived in a timely manner	95.00	+2.37	92.63	93.26
Cleanliness of the ambulance	96.09	+2.30	93.79	95.61
Comfort of the ride	95.16	+8.12	87.04	88.78
Skill of the person driving the ambulance	96.77	+2.98	93.79	94.99
Overall Composite Score	95.76	+3.95	91.81	93.16

Medic Composite

	Current	Previous	+/-	National DB
Care shown by the medics who arrived with the ambulance	93.75	-1.66	95.41	95.48
Degree to which the medics took your problem seriously	94.53	-0.70	95.23	95.33
Degree to which the medics listened to you and/or your family	93.75	-1.66	95.41	95.10
Skill of the medics	93.75	-1.66	95.41	95.26
Extent to which the medics kept you informed about your treatment	93.55	-0.24	93.79	93.77
Extent to which medics included you in the treatment decisions (if applicable)	93.75	-0.04	93.79	93.66
Degree to which the medics relieved your pain or discomfort	88.89	-4.01	92.90	91.99
Medics' concern for your privacy	92.86	-1.97	94.83	94.47
Extent to which medics cared for you as a person	93.33	-1.90	95.23	95.17
Overall Composite Score	93.13	-1.54	94.67	94.47

Billing Office Staff Composite

	Current	Previous	+/-	National DB
Professionalism of the staff in our billing office	77.89	-7.18	85.07	89.49
Willingness of the staff in our billing office to address your needs	80.67	-4.40	85.07	89.25
Overall Composite Score	79.28	-5.79	85.07	89.37

Figure 223: Annual EMS Performance Responses, continued

Overall Experience Composite

	Current	Previous	+/-	National DB
How well did our staff work together to care for you	97.12	+2.29	94.83	94.47
Extent to which our staff eased your entry into the medical facility	91.35	-2.44	93.79	94.80
Appropriateness of Emergency Medical Transportation treatment	93.52	-1.52	95.04	94.49
Extent to which the services received were worth the fees charged	82.70	-9.01	91.71	89.91
Overall rating of the care provided by our Emergency Medical Transportation service	93.75	-1.29	95.04	94.67
Likelihood of recommending this ambulance service to others	90.42	-3.62	94.04	94.16
Overall Composite Score	91.47	-2.61	94.08	93.75

Figure 224: EMS Responses Comparison Locally and Nationally for December 2024

Benchmark Comparison By Question

	Your Score	All Fire Departments	Minnesota
Helpfulness of the person you called for ambulance service	94.35	95.66	94.17
Concern shown by the person you called for ambulance service	97.58	95.56	94.39
Extent to which you were told what to do until the ambulance arrived	95.97	93.71	92.86
Extent to which the ambulance arrived in a timely manner	95.00	96.04	94.02
Cleanliness of the ambulance	96.09	97.27	95.44
Comfort of the ride	95.16	93.32	89.21
Skill of the person driving the ambulance	96.77	97.39	95.58
Care shown by the medics who arrived with the ambulance	93.75	97.61	95.42
Degree to which the medics took your problem seriously	94.53	97.46	95.30
Degree to which the medics listened to you and/or your family	93.75	96.21	94.75
Skill of the medics	93.75	97.03	94.58
Extent to which the medics kept you informed about your treatment	93.55	96.11	93.15
Extent to which medics included you in the treatment decisions (if applicable)	93.75	96.37	93.42
Degree to which the medics relieved your pain or discomfort	88.89	94.62	92.94
Medics' concern for your privacy	92.86	96.54	94.28
Extent to which medics cared for you as a person	93.33	97.09	95.48
Professionalism of the staff in our billing office	77.89	92.13	87.13
Willingness of the staff in our billing office to address your needs	80.67	91.96	87.92
How well did our staff work together to care for you	97.12	97.62	93.95
Extent to which our staff eased your entry into the medical facility	91.35	97.18	93.23
Appropriateness of Emergency Medical Transportation treatment	93.52	96.90	94.36
Extent to which the services received were worth the fees charged	82.70	93.47	88.09
Overall rating of the care provided by our Emergency Medical Transportation service	93.75	97.61	93.57
Likelihood of recommending this ambulance service to others	90.42	97.15	94.10
Overall Score	92.35	95.92	93.22

Figure 225: Comparable Minnesota Cities

CITY'S NAME	POP.	SQUARE MILES	FIRE DEPT. STAFF	FIRE CALL VOLUME	NUMBER OF FIRE STATIONS	EMS DELIVERY MODEL	AVERAGE RESPONSE TIME
Burnsville, MN	63,295	24	55	9,828	2	3 Ambulances	6:24
Bloomington, MN	89,987	34.7	120		6	No Transport - Private ambulance transport	
Brooklyn Park, MN	86,478	26.08	50	8,200	4	No Transport - Private ambulance transport	
Eagan, MN	69,086	33.5	48	6,819	3	No Transport - Private ambulance transport	06:13
Edina, MN	53,494	15.46	45	7,316	2	3 Ambulances	
Lakeville, MN	75,217	36.32	86	3,646	4	No Transport - Private ambulance transport	07:02
Maplewood, MN	42,088	17.04			2	2 Ambulance	
White Bear Lake, MN	24,883	8.05				2 Ambulance	

Figure 226: Comparable National Cities

CITY'S NAME	POP.	SQUARE MILES	FIRE DEPT. STAFF	FIRE CALL VOLUME	NUMBER OF FIRE STATIONS	EMS DELIVERY MODEL	AVERAGE RESPONSE TIME
Burnsville, MN	63,295	24	55	9,828	2	3 Ambulances	6:24
Appleton, WI	75,644	24.7	96	6,993	6	No Transport - Private ambulance transport	
Grapevine, TX	50,631	32	112	7,233	5	3 Ambulances	05:55
Lenexa, KS	57,434	34.3	97	7,000	6	No Transport - Johnson County	06:52
Orland Park, IL	72,197	30	170	12,564	6	5 Ambulances	05:42
South Lake Fire, TX	31,095	22.5	74	3,995	3	2 Ambulances (1 Reserve)	
Waterloo, IA	66,606	63.23	115	12,697	6	4 Ambulances (1 Overflow)	05:35
Waukesha, WI	67,000	24	117	9,234	5	5 Ambulances	05:40
Winter Park, FL	30,825	8.7	82	6,632	3	3 Ambulances	05:14

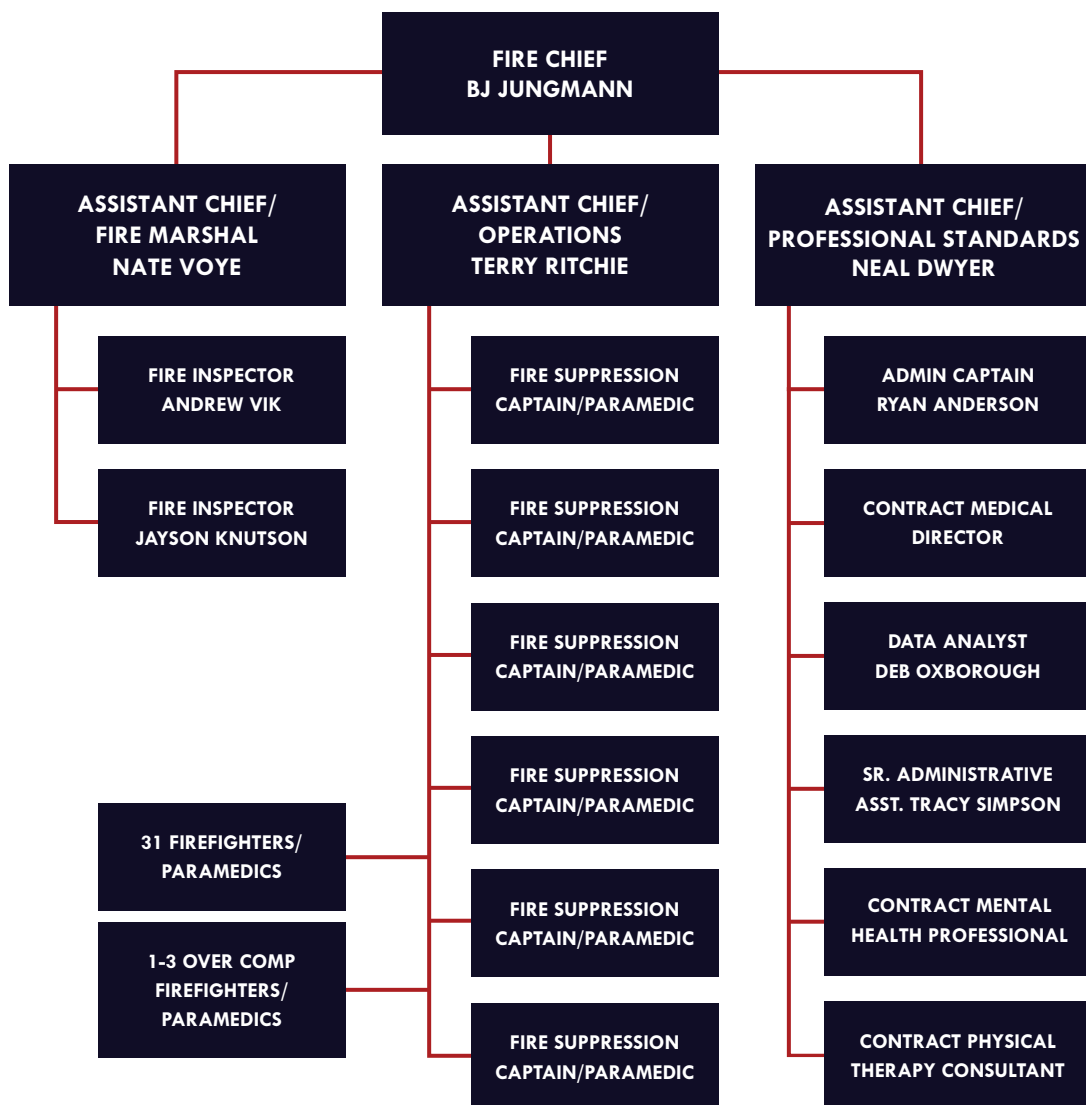
OVERALL EVALUATION, CONCLUSION & RECOMMENDATIONS

STAFFING

The Burnsville Fire Department recognizes the critical need to expand staffing levels to meet community demand and ensure service reliability. In 2015, the Burnsville Fire Department was awarded a Staffing for Adequate Fire Emergency Response (SAFER) grant from FEMA to add a 12-hour peak demand ambulance, significantly enhancing the Burnsville Fire Department's ability to respond to emergencies during high-demand periods (8:00 a.m. to 8:00 p.m., 7 days a week), improving service reliability, and reducing the need for mutual aid use of EMS within the City of Burnsville.

Burnsville Fire Department continues to apply for the SAFER Grant to provide funding needed for additional staff, but it has not been awarded since 2015. With the growing demand for fire, medical, rescue, and prevention services, having a long-term staffing plan is essential to ensure that the department can continue to meet the community's needs, both in the short and long term.

Figure 227: Burnsville Fire Department Organizational Chart



OVERALL EVALUATION, CONCLUSION & RECOMMENDATIONS

The increasing demand for service and the need to provide adequate coverage have become key factors in planning for future staffing needs. Below the 2019 and 2024 Demand/Coverage vs. Units illustrate how staffing levels are stretched to meet community needs and highlight the periods during which service delivery is at risk of being compromised due to limited staffing resources.

Figure 228: Demand/Coverage vs. Units for 2019

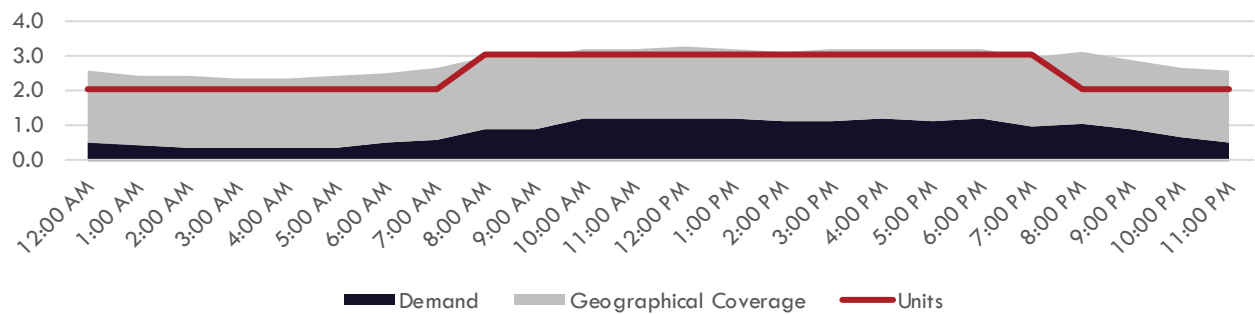
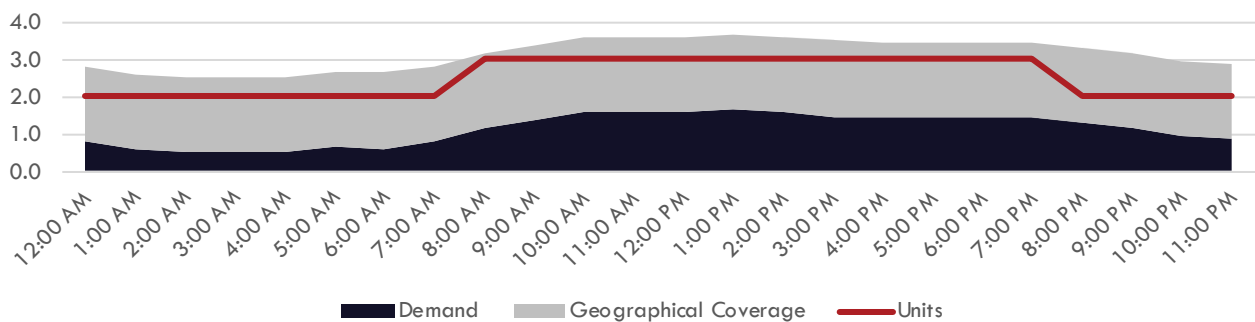
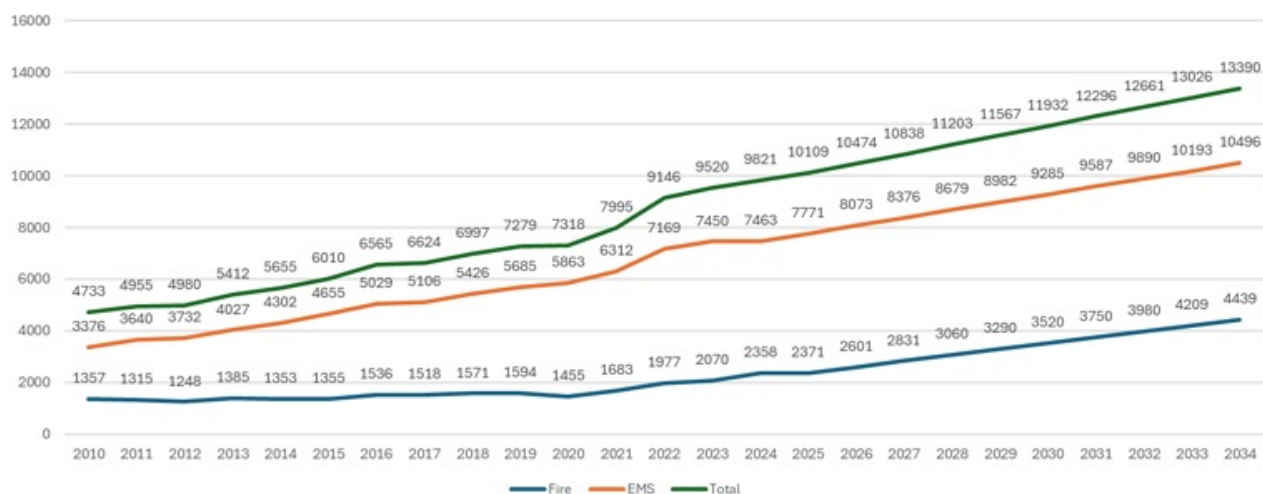


Figure 229: Demand/Coverage vs. Units for 2024



The trend of increasing calls for service continues to be a concern. Figure 230 below demonstrates how the volume of calls has been rising annually, placing additional pressure on existing resources. Forecasted on historical data, it is predicted the Burnsville Fire Department will respond to over 10,000 calls for service in 2025.

Figure 230: Call Volume Forecast



As calls for service continue to increase, the Burnsville Fire Department faces the growing challenge of responding to multiple incidents simultaneously. When Burnsville Fire Department resources are unavailable, mutual aid fire departments and other EMS agencies provide response to the City of Burnsville.

Mutual aid can help fill Burnsville Fire Department gaps in response, but it does come with risks. An EMS incident or delayed response could contribute to worse patient outcomes, increased illness or death, and greater public health impacts. For a fire incident, risks include delay in response time that can result in increased property damage, greater loss of life, and higher costs associated with those delays.

OVERALL EVALUATION, CONCLUSION & RECOMMENDATIONS

Figure 231 below shows the increasing number of simultaneous incidents and Figure 232 the increase in number of times no Burnsville Fire Department resources are available upon dispatch.

Figure 231: Concurrent Calls – Overall

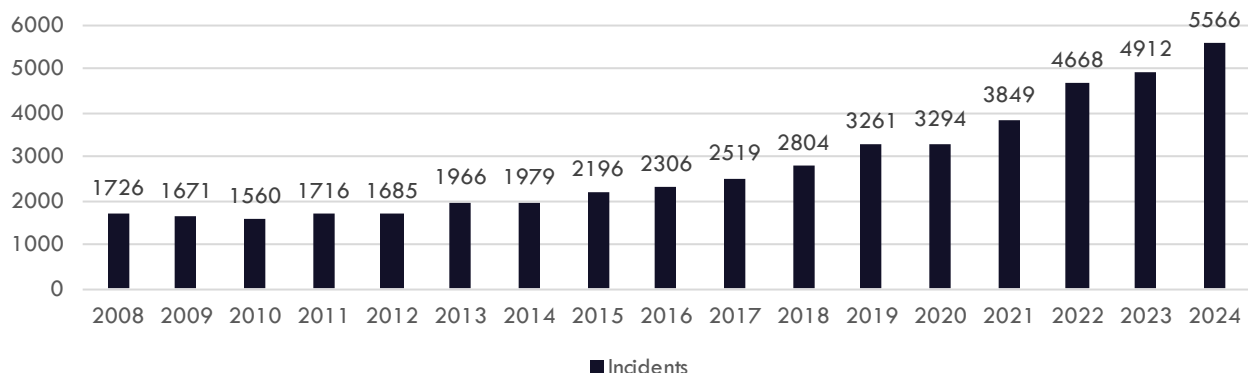
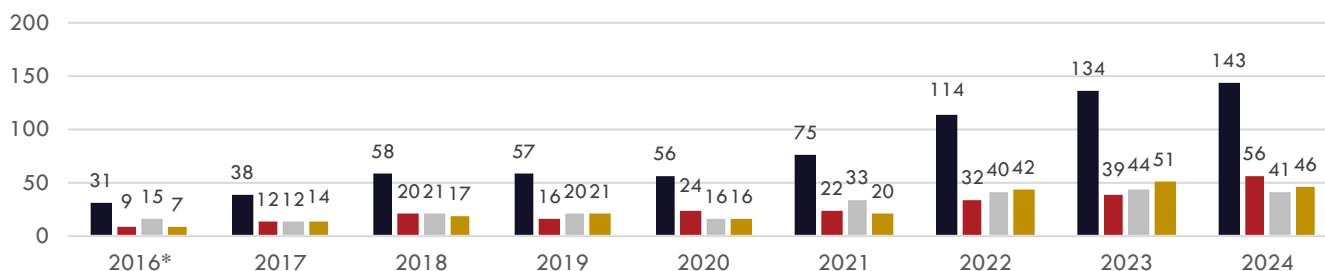


Figure 232: Number of Incidents Where No Burnsville Fire Department Units Were Available



*New Cad System, information only available beginning 6/1/2016

No Units Available on Dispatch
 No Burnsville Units Responded
 Burnsville Unit(s) Responded but not to need based on protocol
 Appropriate Burnsville Units Cleared and Responded

The Burnsville Fire Department has a strong, well-defined mission to provide efficient and effective Fire, Medical, Rescue and Prevention Services of the highest quality; however, the challenge is ensuring that the necessary staffing levels are met to form an effective response force (ERF). Without proper staffing, even the best-trained and equipped personnel cannot deliver the level of service required to meet the growing demand for emergency responses in the City of Burnsville.

Given that each 9-1-1 incident is unique, tailoring responses to each situation is essential. The goal of having the right people on the scene, equipped with the right resources, becomes increasingly difficult if there aren't enough staff available, especially in situations with concurrent calls or when multiple types of expertise are needed simultaneously. Below shows an ERF for an Appliance Fire.

Figure 233: Effective Response Force (ERF) For an Appliance Fire

Appliance Fire

Critical Tasks	Needed Personnel	Industry Standard	Current Staffing	Proposed Staffing
Apparatus Operator	1		1	1
Back Up	1		1	1
Fire Control	2		2	2
Incident Commander	1		1	1
Total	5	N/A	5	5

*Add EMS with 2 personnel if Fire with Injury.

FUTURE FUNDING

Positions for implementation by a study that require funding alternatives and discussion with the City Council.

Department	2026	2027	2028	2029	2030
Fire - Full Time Equivalents (FTE)	4	7	4	4	4

DATA – QUALITY & MONITORING

Burnsville Fire Department will transition to a new fire and EMS records system. The system will provide an opportunity to enhance data quality, monitor processes, identify ways to reduce inadvertent errors and missing data, for example, by implementing data validation rules during input to flag anomalies, such as negative mileage or response times exceeding a time threshold, especially on calls that happen around midnight.

Burnsville Fire Department hired a consultant to create a dashboard that aggregates key performance indicators (KPIs) like response times and call volumes. The dashboard could monitor data in more real-time and identify trends, improve communication both internally and externally to provide additional information and performance metrics for staff to continuously improve. The Burnsville Fire Department could also share the information externally to better inform policy makers and the community of the department's capability and performance.

Figure 235: Burnsville Fire Department Dashboard



Burnsville Fire Department hired their first Data Analyst in 2024. This position was identified in the previous Burnsville Fire Department Standard of Cover. The combination of real-time monitoring and advanced data analysis will improve operational effectiveness, reduce inefficiencies, and ensure that the Burnsville Fire Department continues to serve the community in the best possible way.

COMMUNITY RISK REDUCTION (CRR)

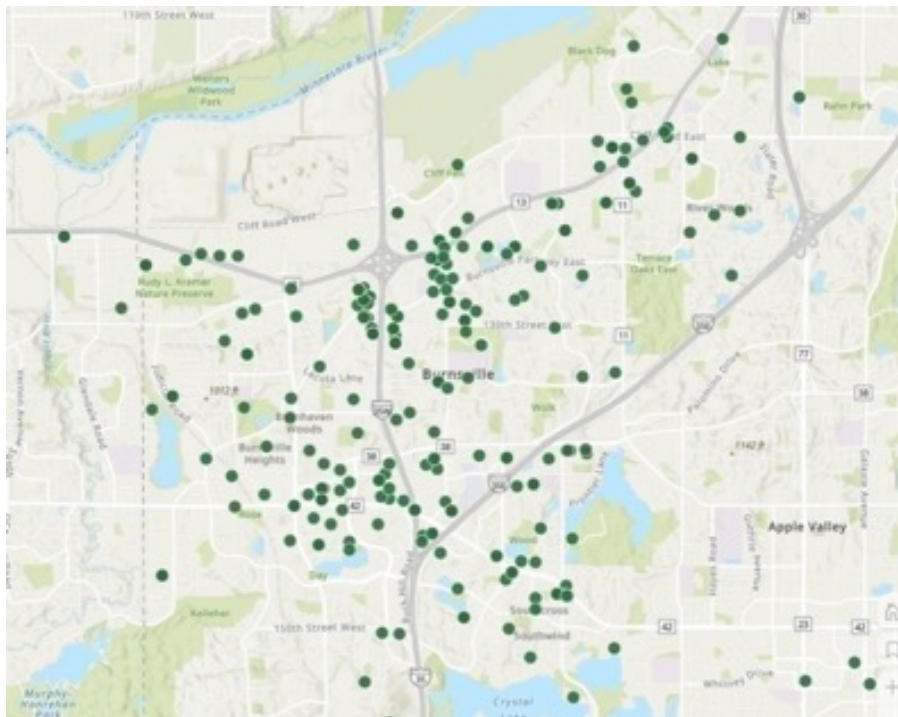
Burnsville Fire Department began a Community Risk Reduction EMS Pilot program in 2023. For 8 hours a week, between 3-4 firefighters worked on their off-duty days to identify and follow up with frequent users of the system, repeat callers, and referrals. This type of program, however, has its limitations and is not sustainable. To be an effective program, adding a new Full-Time Equivalent (FTE) firefighter to manage activities, including the opioid overdose prevention efforts and public education initiatives, will create a more sustainable and effective CRR program for the City of Burnsville.

The opioid crisis and increasing demands on emergency medical services (EMS) highlight the necessity for enhanced community risk reduction strategies. With opioid-related overdoses continuing to pose a significant risk, it is essential to enhance education, outreach, and follow-up efforts. Regular outreach efforts to those at risk for overdose will help with prevention and provide tailored support.

Figure 236: Estimated Cost for a CRR FTE

2025 Firefighter/Paramedic Costs	
Wages and Benefits (53 hours):	\$195,000
New Vehicle:	\$85,000
Fire Gear:	\$5,000
Radio:	\$7,500
iPad:	\$1,600
Laptop:	\$3,600
Cell card: \$40/month x 12 =	\$480
Medical Bags and Equipment -	\$5,000
Cardiac Monitor	\$50,000
Estimated Total =	\$355,000

Figure 237: Primary Impression of Abuse of Alcohol/Drugs-Intoxication) 2024



OVERALL EVALUATION, CONCLUSION & RECOMMENDATIONS

Additionally, it is essential to collaborate with treatment centers and care facilities to mitigate misuse of emergency resources and inappropriate patient destinations to ensure that patients are being transported to the most appropriate facility based on their needs. This would be a more coordinated approach between EMS, treatment centers, and care facilities while ensuring patients' needs are being met.

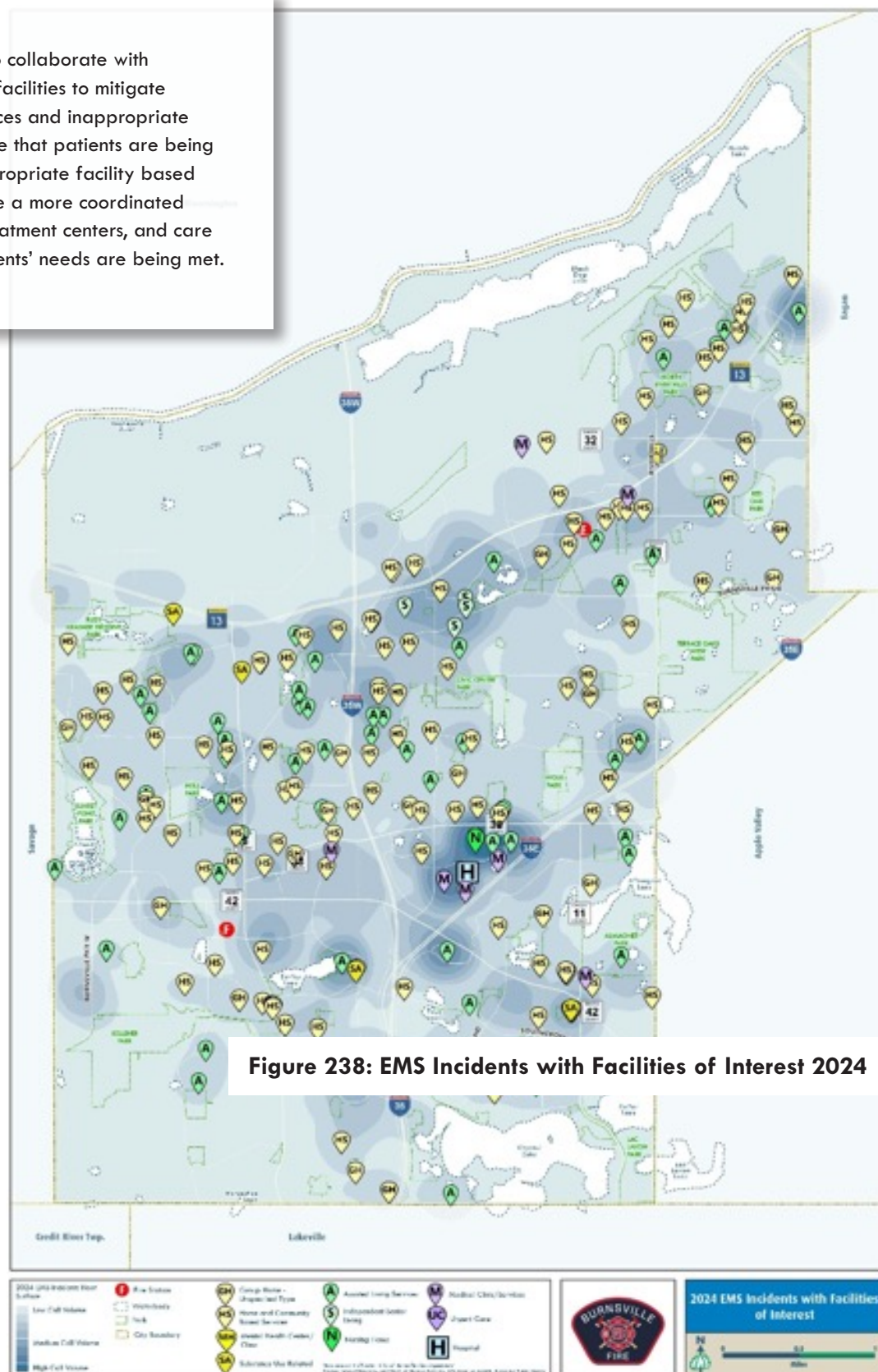


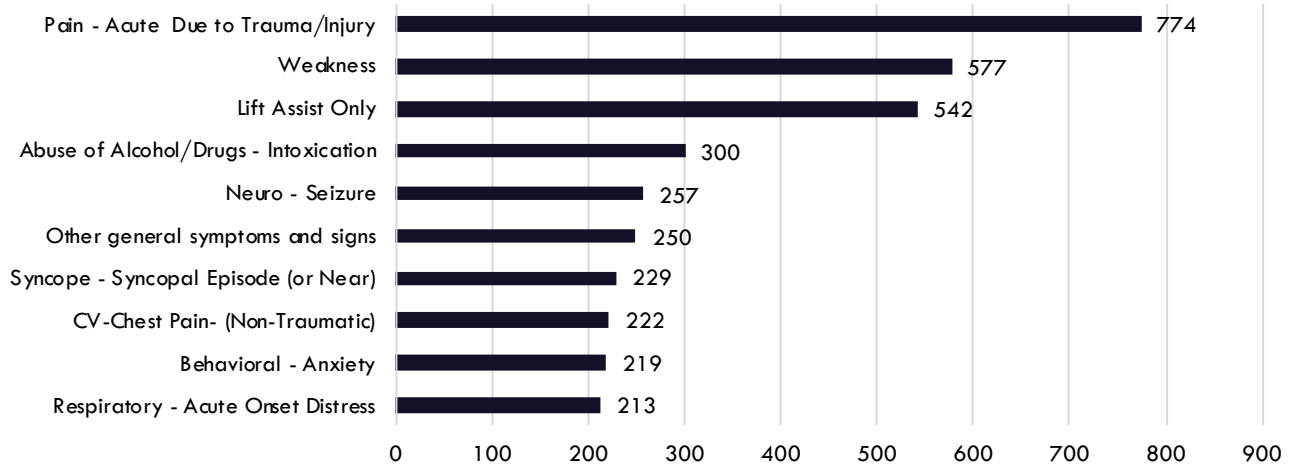
Figure 238: EMS Incidents with Facilities of Interest 2024

High utilizers of EMS services often have unmet medical, social, or environmental needs that could be addressed through a customized care plan. It is recommended to identify patients who may benefit from a specific care plan and collaborate with stakeholders (doctors, social workers, etc.) to ensure appropriate interventions. This can reduce strain on EMS resources while improving patient outcomes. It is also recommended to increase medical director time with the Burnsville Fire Department to assist with complex patients and specific patient care plans.

Patients with mental health issues often require continuous care to reduce dependence on emergency services and unnecessary hospital visits. It is recommended to follow up with mental health patients to increase compliance with follow-up care and improve long-term outcome patient quality of life while reducing system strain.

Falls are a major concern for many in the community, especially elderly individuals. Proper follow-up care can prevent repeat falls, hospital admissions and ensure a living environment free from fall hazards.

Figure 239: Top EMS Primary Impression 2024



It is recommended to provide public education on community risk reduction efforts and collaborate with the Burnsville Police Behavioral Health Unit to engage the public in prevention and education initiatives.

ADDITIONAL FIRE STATION

Burnsville Fire Department would like to consider planning and developing a third fire station, to be in the center of the City of Burnsville and operational in 10 years, to handle the increasing demand for service beyond 10 years.

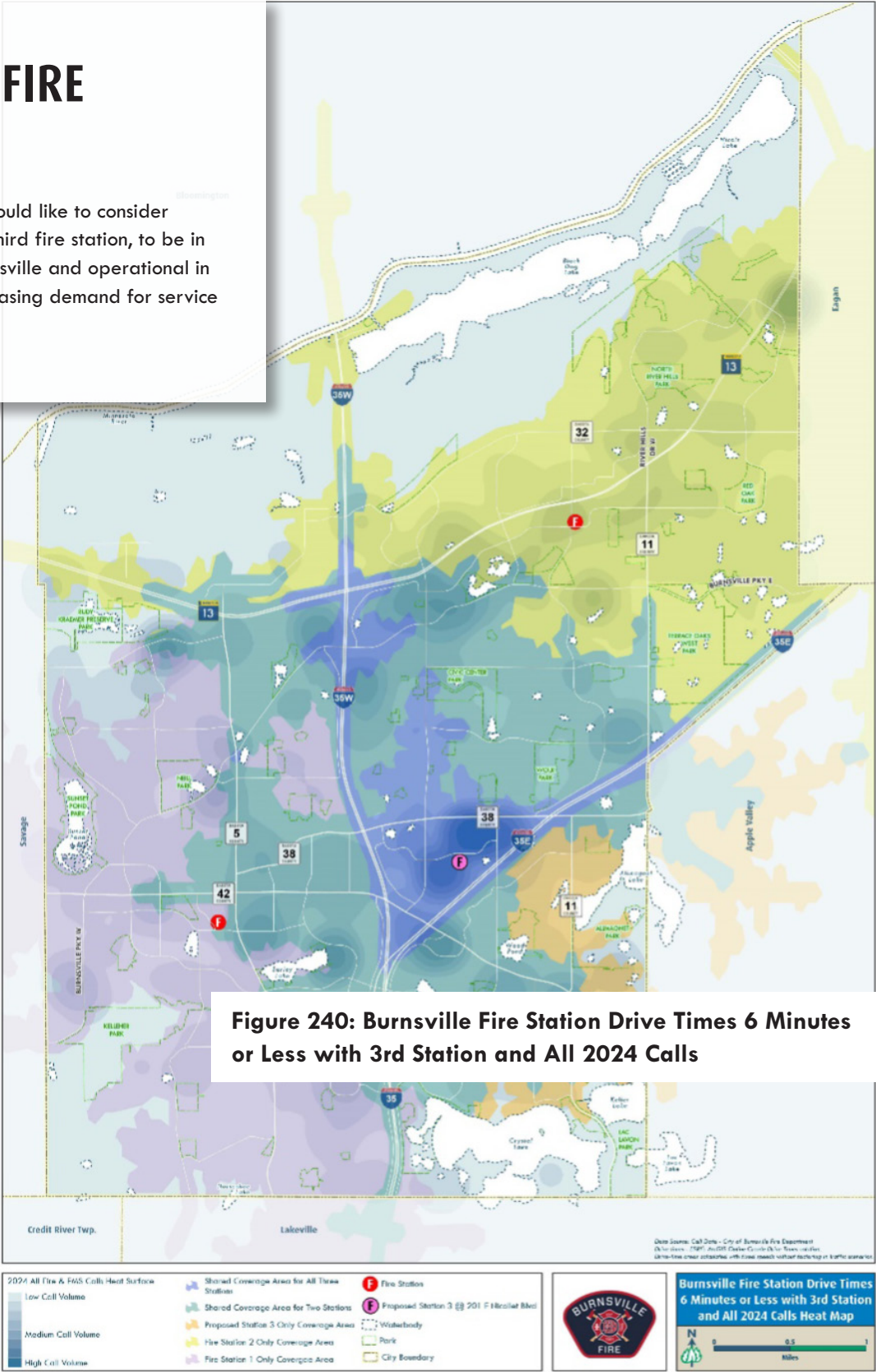


Figure 241: Call Volume Forecast

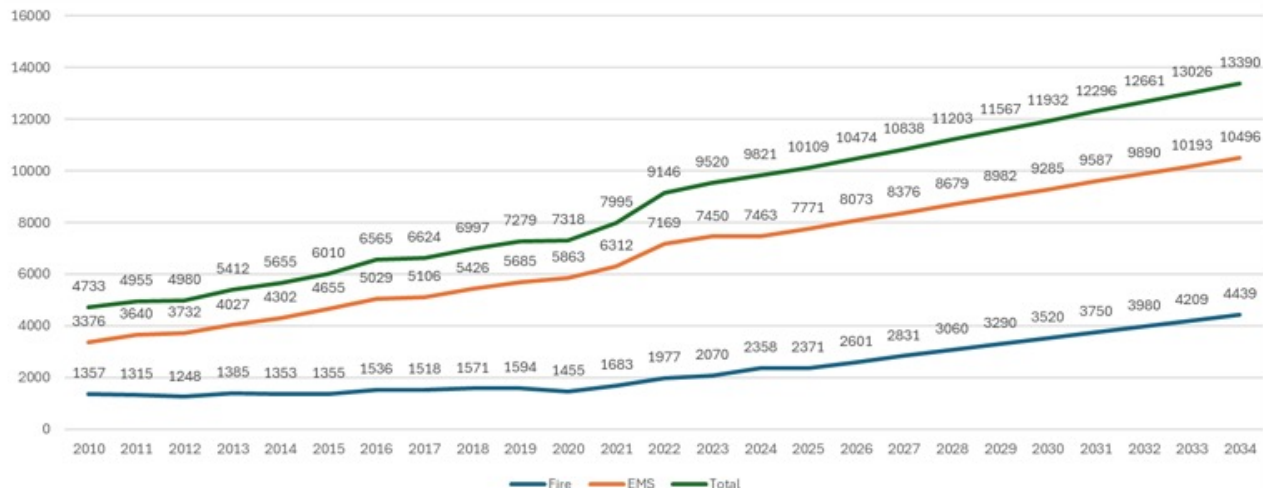


Figure 242: Comparable Minnesota Cities

CITY'S NAME	POP.	SQUARE MILES	FIRE DEPT. STAFF	FIRE CALL VOLUME	NUMBER OF FIRE STATIONS	EMS DELIVERY MODEL	AVERAGE RESPONSE TIME
Burnsville, MN	63,295	24	55	9,828	2	3 Ambulances	6:24
Bloomington, MN	89,987	34.7	120		6	No Transport - Private ambulance transport	
Brooklyn Park, MN	86,478	26.08	50	8,200	4	No Transport - Private ambulance transport	
Eagan, MN	69,086	33.5	48	6,819	3	No Transport - Private ambulance transport	06:13
Edina, MN	53,494	15.46	45	7,316	2	3 Ambulances	
Lakeville, MN	75,217	36.32	86	3,646	4	No Transport - Private ambulance transport	07:02
Maplewood, MN	42,088	17.04			2	1 Ambulance	
White Bear Lake, MN	24,883	8.05				1 Ambulance	

Figure 243: Comparable National Cities

CITY'S NAME	POP.	SQUARE MILES	FIRE DEPT. STAFF	FIRE CALL VOLUME	NUMBER OF FIRE STATIONS	EMS DELIVERY MODEL	AVERAGE RESPONSE TIME
Burnsville, MN	63,295	24	55	9,828	2	3 Ambulances	6:24
Appleton, WI	75,644	24.7	96	6,993	6	No Transport - Private ambulance transport	
Grand Junction, CO	70,641	38.2	47*	20,652	6	6 Ambulances	
Grapevine, TX	50,631	32	112	7,233	5	3 Ambulances	05:55
Lenexa, KS	57,434	34.3	97	7,000	6	No Transport - Johnson County	06:52
Orland Park, IL	72,197	30	170	12,564	6	5 Ambulances	05:42
South Lake Fire, TX	31,095	22.5	74	3,995	3	2 Ambulances (1 Reserve)	
Waterloo, IA	66,606	63.23	115	12,697	6	4 Ambulances (1 Overflow)	05:35
Waukesha, WI	67,000	24	117	9,234	5	5 Ambulances	05:40
Winter Park, FL	30,825	8.7	82	6,632	3	3 Ambulances	05:14

IDENTIFY PARTNERS TO FORM A FIRE DISTRICT

It is suggested to continue to collaborate with neighboring agencies and regional partners. Identify opportunities for a potential fire district with partners who wish to provide the same level of service to their community.

A fire district is established to provide fire protection services to a specific geographic area, usually encompassing multiple smaller communities or unincorporated areas, by creating a unified system for managing fire services, often with better cost efficiency and coverage compared to each community having its own separate fire department.

Comparable Cities

<https://www.southmetro.org/>

<https://www.southsnofire.org/>

OVERALL EVALUATION, CONCLUSION & RECOMMENDATIONS

South Metro Fire Rescue (SMFR) is the fire district that serves the south metro Denver area, including parts of Arapahoe, Douglas, and Jefferson counties. SMFR provides emergency and prevention services to the community.

Figure 244: Map and List of South Metro Fire Rescue, Colorado Fire Districts

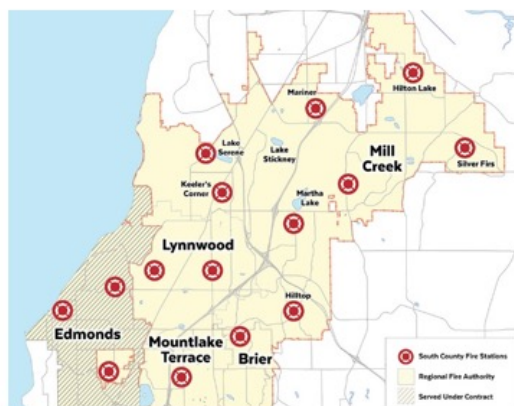


Figure A. SMFR overview map, 2012.

Facility	Location	Sq. Ft.	Year Built
Administration Office	1100 E. Montez Ave	110,138	2002
Joint Service Facility	1900 E. Foothill	40,075	1994
Johnson Training Center	2300 W. Channing Ave	5,750	1994
Quaker Market	3070 E. Smoky Hill Rd	4,105	1995
Station 01	2250 W. Berry Ave	8,748	1991
Station 02	1020 E. Broadway	12,176	2003
Station 03	2200 W. East Main Rd	3,239	1997
Station 04	3000 S. Colorado Blvd	3,239	1970
Station 05	2700 S. Dry Creek Rd	1,141	1972
Station 06	3110 W. Highland Dr	11,494	1994
Station 07	1010 S. University Blvd	10,716	1987
Station 08	401 E. University Blvd	10,006	1996
Station 09	4800 W. Tenthon Place	7,000	2009
Station 10	1000 S. Wadsworth Avenue	10,000	1991
Station 11	2700 S. University St	11,000	1994
Station 12	1000 S. Evans Rd	11,300	1999
Station 13	1400 S. Evans Way	1,400	1997
Station 14	1400 S. Evans St	12,740	1992
Station 15	1400 S. Evans St	11,534	1991
Station 16	1200 S. Dry Creek Rd	1,472	1978
Station 17	1010 S. University Dr	10,716	1987
Station 18	1200 S. University Dr	10,716	1987
Station 19	421 E. Castle Peak Place	6,700	1996
Station 20	1700 S. University Blvd	10,000	1991
Station 21	1700 S. University Blvd	10,000	1991
Station 22	1700 S. University Blvd	10,000	1991
Station 23	1700 S. University Blvd	10,000	1991
Station 24	1700 S. University Blvd	10,000	1991
Station 25	1700 S. University Blvd	10,000	1991
Station 26	1700 S. University Blvd	10,000	1991
Station 27	1700 S. University Blvd	10,000	1991
Station 28	1700 S. University Blvd	10,000	1991
Station 29	1700 S. University Blvd	10,000	1991
Station 30	1700 S. University Blvd	10,000	1991

South County Fire, Washington: Regional fire authorities include Brier, Lynnwood, Mill Creek, Mountlake Terrace and unincorporated communities of southwest Snohomish County. South County Fire also provides fire and emergency medical services in Edmonds under a service contract with the city.

Figure 245: Map and List of South County Fire, Washington Fire Districts



Fire Districts

Below is a list of the fire district taxing authorities in Snohomish County that may levy a property tax. To find out more about a particular entity, please view their website (if available) or use their mailing address.

- [Fire District 04](#)
- [Fire District 05](#)
- [Fire District 10](#)
- [Fire District 12](#)
- [Fire District 15](#)
- [Fire District 16](#)
- [Fire District 17](#)
- [Fire District 19](#)
- [Fire District 21](#)
- [Fire District 22](#)

P.O. Box 1557
Granite Falls 98252

- [Fire District 24](#)
- [Fire District 25](#)
- [21824 SR 530 N.E.](#)
- [Arlington 98223](#)
- [Fire District 26](#)
- [Fire District 27](#)
- [P.O. Box 1846](#)
- [Everett, WA 98206](#)
- [Marysville Fire District RFA](#)
- [North Co. Regional Fire](#)
- [So. Sno. Co. Fire & Rescue RFA](#)
- [Snohomish Regional Fire & Rescue](#)

CONTINUED INVESTMENT IN HEALTH & WELLNESS

Health and wellness are crucial in the Burnsville Fire Department to ensure personnel can effectively perform their duties, while maintaining a healthy quality of life. Being a Firefighter/Paramedic/EMT is physically demanding with high stress levels and significant risk for physical injuries, mental health issues, and chronic diseases.

The Burnsville Fire Department wants to continue to invest in mental health wellness and resilience of staff. It is imperative to prioritize physical wellness and work to implement additional physical support, such as the addition of a physical therapist to provide preventative and resilience care and continued investment in programs that provide a more efficient navigation of the health care system for staff.

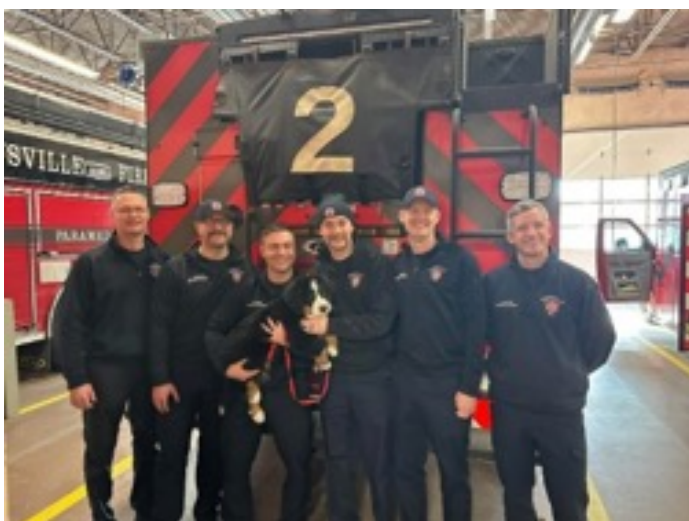


Figure 246: Firefighters with Soldier 6
Therapy Puppy Sully



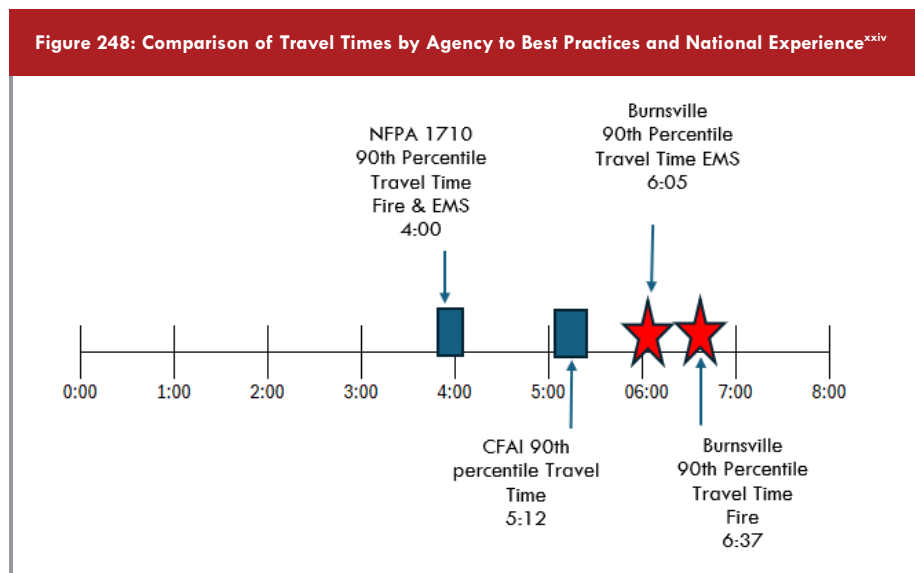
Figure 247: Firefighter Pulling Hose Line

PERFORMANCE OBJECTIVES & MEASUREMENT

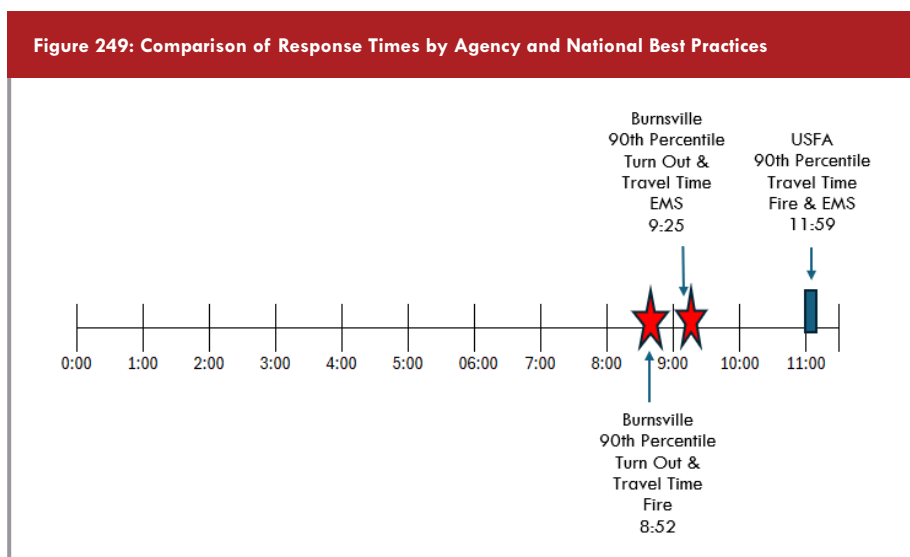
PERFORMANCE OBJECTIVES – BASELINES

- Response time of 9 minutes or less, 80% of the time within the City of Burnsville
- The Burnsville Fire Department will maintain a system reliability score of at least 95%
- Patient satisfaction
- Keep annual growth rate of structure fire instances at or below annual population growth
- Contain structure fires to room of origin for 80% of incidents
- Zero civilian fire deaths
- Zero firefighter line of duty deaths

PERFORMANCE OBJECTIVES – BASELINES



^{xxiv}CFAI. (2009). Fire & emergency service self-assessment manual, (8th ed.). Chantilly, Virginia: Author.



COMPLIANCE METHODOLOGY

The department will use the community risk reduction five E model to monitor the compliance with the performance and outcomes identified in this Standard of Response Cover document. These five E's are the tactics the department uses to ensure its efficiency and effectiveness. The department is able to use this method to prioritize its resources and programs to aim for the largest impact or risk reduction.

Below are Department measurables for each category:

Education

- Public education
 - School visits
 - Open house
 - Community events
- Community Engagement
 - High School EMT Program
 - Heart Restart CPR
 - Recruitment Efforts
 - Social media presence

Engineering

- Fire plan reviews during development
- Fire permits for alarm and sprinkler system work
- Inspection of new and existing buildings
- Smoke alarms available to residents

Enforcement

- Fire inspections and permits ensure compliance with the fire code. Our approach is education first before enforcement.
- Fire investigations to determine cause and origin. Pursue prosecution of arson cases in collaboration with the police department and county attorney's office.

Economic Incentive

- Escalating fees for alarm malfunctions after three per year at one building
- Monitor ISO rating that may affect resident and business insurance premiums

Emergency Response

- Response times
- Mutual aid use
- Concurrent calls
- EMS satisfaction survey results

Figure 250: 5E's of Community Risk Reduction^{xxv}



TABLE OF FIGURES

Figure 1: City of Burnsville Organizational Chart.....	3
Figure 2: Burnsville Fire Department Organizational Chart	4
Figure 3: Burnsville Fire Department Full Time Equivalent 1981-2024	7
Figure 4: Call Volume and FTE Personnel 1985-2024	8
Figure 5: Call Volume and Total Number of Shift Personnel 1985-2024	8
Figure 6: Number of Calls per Shift Personnel	9
Figure 7: Service Demand versus Personnel Resources from 1985-2024	9
Figure 8: ISO Summary	10
Figure 9: City of Burnsville Strategic Priorities	11
Figure 10: Taxable Market Values 2012-2021	13
Figure 11: City of Burnsville Purchasing Matrix	14
Figure 12: City of Burnsville 2025 Budget.....	15
Figure 13: Burnsville Fire Department Operating Budget 2020-2025	15
Figure 14: Burnsville Fire Department Budget Comparison 2024 and 2025	16
Figure 15: Total Burnsville Fire Department Revenue 2014-2024.....	16
Figure 16: Comparative Population Data 1960-2020.....	17
Figure 17: City of Burnsville Topography	18
Figure 18: Total Population Change.....	19
Figure 19: Total Households Change	19
Figure 20: Burnsville's unemployment is typically, lower than the region.....	19
Figure 21: Burnsville Households by Income 2022.....	19
Figure 22: City of Burnsville Housing Stock.....	20
Figure 23: Burnsville by Year Built.....	21
Figure 24: City of Burnsville Population by Age 2018-2022.....	22
Figure 25: City of Burnsville Household Demographics	22
Figure 26: City of Burnsville Population with Disabilities.....	23
Figure 27: City of Burnsville's Population by Race and Ethnicity	23

Figure 28: City of Burnsville's Population by Languages Spoken	23
Figure 29: City of Burnsville Educational Attainment 2018-2022.....	24
Figure 30: NFPA 1710 Community Risk Assessment.....	26
Figure 31: Community Hazards/Risk Examples.....	26
Figure 32: Risk Matrix.....	27
Figure 33: Disaster Potential Matrix.....	28
Figure 36: Public Infrastructure Depiction.....	31
Figure 37: Runway 17 Departures.....	32
Figure 38: Runway 35 Arrivals	32
Figure 39: City of Burnsville's Top 25 Valued Properties.....	33
Figure 40: City of Burnsville Flood Zone Map.....	34
Figure 41: Response Time – All Calls.....	36
Figure 42: Total Incidents by Month for 2024	36
Figure 43: Total Incidents by Day of Week for 2024.....	37
Figure 44: Total Incidents by Hour for 2024.....	38
Figure 45: Total Incidents by Day of Week and Hour of Day for 2024.....	38
Figure 46: 10 Year Total Incidents Breakdown Comparison by Property Use Category.....	39
Figure 47: 10 Year Residential Breakdown Comparison by Property Use Category	39
Figure 48: 10 Year Trend Total Incidents - Residential	40
Figure 49: 10 Year Trend Total Incidents – Health Care, Detention, and Correction.....	40
Figure 50: 10 Year Trend Total Incidents – Outside or Special Property	41
Figure 51: 10 Year Trend Total Incidents – Mercantile, Business.....	42
Figure 52: Total Incidents Residential Property Use Breakdown 2024.....	42
Figure 53: Total Incidents Health Care, Detention, and Correctional Property Use Breakdown 2024	42
Figure 54: Census Age Comparison 2019 to 2024.....	42
Figure 55: EMS Utilization Rate by Age/1,000 Population Comparison 2019 to 2024.....	43
Figure 56: EMS Patient Gender and Age Range 2024.....	43

Figure 57: Legacy Construction.....	44
Figure 58: Modern Construction	45
Figure 59: Average Square Footage of New Single-Family Homes.....	45
Figure 60: Modern versus Legacy Room	46
Figure 61: Modern Fuel Loads vs Legacy Fuel Loads when Exposed to Fire	47
Figure 62: Timeline of a Fire	48
Figure 63: Modern Fire Environment.....	49
Figure 64: Civilian Fatality based on Fire Spread	50
Figure 65: Percent of Fires Contained to Room of Origin by Year with Performance Objectives.....	50
Figure 66: Survival, Cost and Displacement by Fire Development.....	51
Figure 67: Average Annual Multi-Family Fire Injury/Fatalities Pre/Post Grant.....	52
Figure 68: Average Annual Multi-family Dollar Loss Pre/Post Grant	52
Figure 69: Non-EMS Incidents with Civilian and Firefighter Injury and Death 2011-2024.....	53
Figure 70: Firefighter Injury on Non-EMS Incidents.....	53
Figure 71: Building Fires 2015-2024.....	54
Figure 72: Building Fires by Property Use 2015-2024.....	55
Figure 73: Fire Training Requirements	56
Figure 74: Burnsville Fire Department Training Hours	56
Figure 75: National Registry of Emergency Medical Technicians Continuing Education Requirements.....	57
Figure 76: Fire Incidents Heat Map 2024	58
Figure 77: Fire Incidents and Rental License Properties 2024.....	59
Figure 78: Active Fire Incidents by Month in the City of Burnsville 2024.....	60
Figure 79: Active Fire Incidents by Day of Week 2024	61
Figure 80: Active Fire Incidents by Hour of the Day 2024	61
Figure 81: Active Fire Incidents by Hour of Day and Day of Week 2024.....	62
Figure 82: Building Fire Property Losses by Month 2024	62
Figure 83: Percentage of Property Saved by Month.....	63
Figure 84: Active Fire Incidents by Primary Station 2024.....	64
Figure 85: Active Fire Apparatus Responses 2024.....	64

Figure 86: Response Performance by Unit – Averages for Active Fires 2024.....	65
Figure 87: Active Fires in the City of Burnsville 2024.....	66
Figure 88: Day of Week Fires Occurred 2015-2024	67
Figure 89: Hour of the Day Fires Occurred 2015-2024.....	67
Figure 90: Hour of the Day and Day of Week Fires Occurred 2015-2024	68
Figure 91: Building Fires Heat Map with over \$100,000 of Property Loss 2015-2024	69
Figure 92: All Building Fires 2015-2024.....	70
Figure 93: Building Fires with Rental Licenses 2015-2024	71
Figure 94: Fire Response Time	72
Figure 95: Non-EMS Incidents by Category 2024.....	73
Non-EMS Incidents by Month Category 2024	73
Figure 96: Non-EMS Incidents by Category and Month 2024.....	74
Figure 97: Non-EMS Incidents Day of Week 2024	74
Figure 98: Non-EMS Incidents by Hour of Day 2024	75
Figure 99: Non-EMS Incidents by Primary Station 2024.....	75
Figure 100: Non-EMS Incidents by Apparatus 2024	76
Figure 101: Non-EMS Incidents by Category and Call Processing Time 2024.....	76
Figure 102: Non-EMS Response Performance by Unit - Averages 2024.....	77
Figure 103: Non-EMS Response Performance by Unit - 90th Percentiles 2024.....	78
Figure 104: Non-EMS Incidents by Property Use 2024.....	78
Figure 105: Non-EMS Incident Heat Map 2024	79
Figure 106: Motor Vehicle Accidents with Injuries 2024.....	80
Figure 107: EMS Response Continuum: Burnsville Fire Department's Model.....	81
Figure 108: EMS Response Continuum Private Ambulance Model.....	81
Figure 109: EMS Incident Heat Map 2024	82
Figure 110: EMS Incidents with Clinic Locations 2024	83
Figure 111: EMS Incidents with Assisted Living Locations 2024	84
Figure 112: EMS Incidents with Group Home Locations 2024.....	85
Figure 113: EMS Incidents with Rental Licenses 2024.....	86

Figure 114: EMS Incidents with Facilities of Interest 2024.....	87
Figure 115: EMS Response Time	88
Figure 116: EMS Incidents by Month 2024	88
Figure 117: EMS Incidents by Day of Week 2024.....	89
Figure 118: EMS Incidents by Hour of Day 2024.....	89
Figure 119: EMS Incidents by Hour and Day of Week 2024	90
Figure 120: Response Performance by Primary Station 2024	90
Figure 121: EMS Response by Apparatus 2024.....	91
Figure 122: EMS Response Performance by Unit – Averages.....	91
Figure 123: EMS Response Performance by Unit – 90th Percentiles	92
Figure 124: Time on Task Breakdown 2024	93
Figure 125: Average Time Based on Hospital Desination 2024.....	94
Figure 126: Longest Time on Task in Minutes by Primary Impression 2024.....	95
Figure 127: Top EMS Incident Property Use Category 2024.....	95
Figure 128: EMS Incident Disposition 2024.....	96
Figure 129: EMS Primary Impression 2024.....	97
Figure 130: EMS Patient Primary Symptom 2024	97
Figure 131: Cardiac Arrest Survival Percentage Over Time	98
Figure 132: Cardiac Arrest Response Times and Comparison of Fire Utstein Survival Rates	99
Figure 133: Overall Survival to Hospital Discharge (Percentage).....	99
Figure 134: Emergency Medical Dispatch Matrix.....	100
Figure 135: Dispatch Priority Code 2024.....	101
Figure 136: EMS Calls by EMD Acuity 2019-2024.....	101
Figure 137: Response Mode to the Scene 2024.....	102
Figure 138: EMS Transport Mode to Hospital 2024	102
Figure 139: Lights and Sirens Transports by Primary Impressions 2024	103
Figure 140: Top Complaints Reported to Dispatch 2024.....	103
Figure 141: Total Sales by Payor Mix Comparison 2022 to 2024.....	104
Figure 142: Total Cash Posted by Payor Mix Comparison 2022 to 2024.....	104

Figure 143: Fire Prevention Permits Issued 2015-2024	105
Figure 144: Other Fire Permits by Year 2015-2024	105
Figure 145: Fire Inspections by Year, Permit and Code 2015-2024	106
Figure 146: Number of Multi-Family Buildings with or without Fire Suppression Systems	106
Figure 147: Number of Multi-Family Buildings with or without Fire Alarm Systems.....	107
Figure 148: Multi Family Housing	108
Figure 149: Fire Plan Reviews by Year	109
Figure 150: Preplan	109
Figure 151: Background Investigations Conducted by Year	110
Figure 152: Private Hydrant Inspection Dashboard	111
Figure 153: Number of Private Hydrants Failed.....	112
Figure 154: NFPA 1710 Timeline	113
Figure 155: Turnout Averages and 90th Percentile by Category	114
Figure 156: Travel Averages and 90th Percentile by Category	114
Figure 157: Demand by Station 2024	115
Figure 158: Current station locations, drive time of six minutes or less	116
Figure 159: Apparatus Fleet 2024.....	117
Figure 160: Cost to Purchase Fire Apparatus.....	118
Figure 161: Cost to Purchase Ambulance	118
Figure 162: Fire Station 1	119
Figure 164: Engine 1	119
Figure 165: Ladder 1	120
Figure 166: Medic 1	120
Figure 167: Medic 2	120
Figure 168: Medic 3	121
Figure 169: Fire Station 2.....	122
Figure 171: Engine 2.....	122
Figure 172: Medic 6	123
Figure 173: Medic 4	123

Figure 174: Engine 21	123
Figure 175: Incident Demand Versus Staffed Units 2024	124
Figure 176: EMS Mutual Aid Called vs. EMS Mutual Aid Used 2024	125
Figure 177: Mutual Aid Given and Received 2010–2024	126
Figure 178: Burnsville Fire Department Organizational Chart 2024	127
Figure 179: Daytime Staffing Minimums.....	128
Figure 180: Nighttime Staffing Minimums.....	128
Figure 181: 24-hour Schedule	129
Figure 182: Peak Demand Schedule	129
Figure 183: Number of Mandatory Overtime Occurrences by Assignment.....	130
Figure 184: Non-Full Duty Firefighters by Month.....	131
Figure 185: Callback Counts 2015–2024	132
Figure 186: Shift Staff Overtime by Hours	132
Figure 187: Shift Staff Holiday Hours Paid Out	133
Figure 188: Shift Benefit Time-Off by Hours	133
Figure 189: Shift Trades by Hours.....	133
Figure 190: Fire Department Staff by Age, January 2025.....	134
Figure 191: Fire Department Staff by Years of Service, January 2025	134
Figure 192: Burnsville Fire Department Turnover and Hiring by Year	134
Figure 193: Turnover Timelines	135
Figure 193: Certification Timelines.....	136
Figure 195: Number of Applicants 2014–2025.....	138
Figure 196: Call Volume 2010–2024.....	140
Figure 197: Total Calls for Service 2010–2024.....	140
Figure 198: Call Volume Forecast	141
Figure 199: Total Incidents by Month 2024	141
Figure 200: Total Incident Percentage by Category 2024	142
Figure 201: Incident Counts by Category and Month 2024.....	142
Figure 202: Computed Aid Dispatch Log April 2, 2024, Concurrent Calls.....	143

Figure 203: Incident and Concurrent Call Counts.....	143
Figure 204: Total Concurrent Incidents by Year.....	144
Figure 205: Two Concurrent Incidents by Year	144
Figure 206: Three Concurrent Incidents by Year	145
Figure 207: Four Concurrent Incidents by Year.....	145
Figure 208: Five or More Concurrent Incidents by Year	146
Figure 209: Incidents with No Burnsville Fire Department Resources Available.....	146
Figure 207: Four Concurrent Incidents by Year.....	147
Figure 211: Effective Response Force Building Blocks.....	147
Figure 212: NFPA 1710 Response Time Algorithm.....	148
Figure 213: Special Incidents Recommended Effective Response Force Tasks.....	149
Figure 215: EMS Incidents Recommended Effective Response Force Tasks	161–162
Figure 216: 11 Personnel Available for Structure Fire.....	163
Figure 217: 9 Personnel Available for Structure Fire	164
Figure 218: 5 Personnel Available for Structure Fire	164
Figure 219: Residential Survey Service Priority 2021	165
Figure 220: Residential Survey Service Ratings 2021	166
Figure 221: Residential Survey Public Safety Feedback 2021	167
Figure 222: EMS Survey Responses Executive Summary for December 2024.....	168
Figure 223: Annual EMS Performance Responses	169–170
Figure 224: EMS Responses Comparison Locally and Nationally for December 2024	170
Figure 225: Comparable Minnesota Cities.....	171
Figure 226: Comparable National Cities	171
Figure 227: Burnsville Fire Department Organizational Chart	173
Figure 228: Demand/Coverage vs. Units for 2019	174
Figure 229: Demand/Coverage vs. Units for 2024	174
Figure 230: Call Volume Forecast	175
Figure 231: Concurrent Calls – Overall	176

Figure 232: Number of Incidents Where No Burnsville Fire Department Units Were Available.....	176
Figure 233: Effective Response Force (ERF) For an Appliance Fire	177
Figure 235: Burnsville Fire Department Dashboard	178
Figure 236: Estimated Cost for a CRR FTE.....	179
Figure 237: Primary Impression of Abuse of Alcohol/Drugs-Intoxication) 2024.....	179
Figure 238: EMS Incidents with Facilities of Interest 2024.....	180
Figure 239: Top EMS Primary Impression 2024.....	181
Figure 240: Burnsville Fire Station Drive Times 6 Minutes or Less with 3rd Station and All 2024 Calls.....	182
Figure 241: Call Volume Forecast	183
Figure 242: Comparable Minnesota Cities.....	183
Figure 243: Comparable National Cities	184
Figure 244: Map and List of South Metro Fire Rescue, Colorado Fire Districts.....	185
Figure 245: Map and List of South County Fire, Washington Fire Districts.....	185
Figure 245: Firefighters with Soldier 6 Therapy Puppy Sully.....	186
Figure 246: Firefighter Pulling Hose Line.....	186
Figure 248: Comparison of Travel Times by Agency to Best Practices and National Experience.....	187
Figure 249: Comparison of Response Times by Agency and National Best Practices.....	187
Figure 250: 5E's of Community Risk Reduction	188

APPENDIX

SEE CITY SHAREPOINT SITE FOR PURCHASING POLICY:

<https://burnsvillemn.sharepoint.com/Resources/Forms/AllItems.aspx?id=%2FResources%2F2024%20Purchasing%20Guidelines%2Epdf&parent=%2FResources>

2024 & 2025 BUDGET:

<https://burnsvillemn.gov/186/Budget>

HEALTH CARE SPENDING AND COVERAGE IN MN:

<https://datausa.io/profile/geo/burnsville-mn/#about>

Burnsville Housing and Commercial Needs Assessment Study, Stantec, August 2024

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