

CRA-SOC

NAPERVILLE FIRE DEPARTMENT

Community Risk Assessment – Standard of Cover

Updated 2026



EXECUTIVE SUMMARY

The Standards of Response Coverage and Community Risk Assessment is a foundational document for the Naperville Fire Department. It defines how the department organizes operations and allocates resources to meet the expectations and needs of the community it serves. Among all services provided, emergency response remains the department's highest priority. Identifying community risk factors and aligning them with the most appropriate resources is an ongoing challenge. This requires continuous evaluation and refinement to ensure the highest level of service in a dynamic and evolving community.



The City of Naperville is in a period of constant transition. As of 2024, the US Census Bureau estimates the population of Naperville to be 153,124. This means Naperville has grown by 2.4% since the 2020 census and has become the third-largest city in Illinois. Over the next five years, the community is projected to see continued growth and change. These changes include strong economic and business development, a projected increase in the aging population, an increase in dwelling units, and a local government committed to fiscal responsibility and policy transparency. A data-driven, evidence-based approach allows the Fire Department to make objective decisions grounded in analysis rather than assumption or subjectivity.

The Naperville Fire Department's Standard of Cover and Community Risk Assessment relies heavily on technology to guide the effective and efficient deployment of limited resources. Decisions are not driven by tradition or complacency, but by innovation, creativity, and the exploration of new response strategies. These efforts have proven successful in delivering safe and effective service across all identified risk levels.



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INTRODUCTION

The Naperville Fire Department's Community Risk Assessment and Standards of Cover (CRA/SOC) document is a vital component in helping the fire department to effectively protect the community it serves. Based on the Center for Public Safety Excellence (CPSE) Standards of Cover, 11th Edition, this model provides a structured, data-driven approach for identifying community risks, assessing emergency response capabilities, and determining the most effective distribution and concentration of fire department resources. The primary objective of the CRA/SOC is to ensure a safe, efficient, and reliable response force capable of handling fire suppression, emergency medical services, and specialized rescue incidents.

The development of the 2026 CRA/SOC involved extensive research and evaluation across several core areas. It began with an overview of the community and the fire department, including relevant geographic, demographic, and economic information. This was followed by a detailed community risk assessment that identified hazards and vulnerabilities within the jurisdiction. A critical task analysis was conducted to determine the personnel, equipment, and response times required to effectively manage a variety of emergency scenarios. The department's service level objectives were then reviewed or established to set measurable performance benchmarks. This report also includes an analysis of the distribution and concentration of resources, examining whether current station locations and staffing levels support timely response across all parts of the community. Historical response data was evaluated to assess current performance and identify areas for improvement. The CRA/SOC concludes with policy and operational recommendations to help guide strategic planning and ensure ongoing alignment with community needs.

In addition to informing operational decisions, the CRA/SOC is a key element of the CPSE accreditation process and supports a culture of accountability, transparency, and continuous improvement. When used in conjunction with other planning tools such as a department's strategic plan and self-assessment manual, it provides a comprehensive framework for evaluating service effectiveness and identifying growth opportunities. The Naperville Fire Department has used this model to uphold high standards, respond to evolving risks, and ensure operations are responsive for the last three decades.



DOCUMENTATION OF AREA CHARACTERISTICS

The Naperville Fire Department (NFD), established in 1874, has grown from a single horse barn into a nationally recognized, all-hazards emergency response agency. In 2024, the department celebrated its 150th anniversary, reflecting a legacy of growth, innovation, and unwavering commitment to public safety. Today, the department protects 153,124 residents across over 50 square miles within the City of Naperville, and its fire protection districts, located approximately 25 miles west of Chicago.



To meet the needs of this large and diverse community, the Naperville Fire Department operates ten strategically located fire stations. This deployment supports a response time benchmark of six minutes or less, 90% of the time. The department is staffed by 184 uniformed operational personnel who work on a 24-hour on/48-hour off shift rotation. They operate six fire engines, two ladder trucks, two squad companies, and up to eight front-line advanced life support (ALS) ambulances. All response vehicles are ALS-equipped, allowing every unit to provide the highest level of emergency medical care. In addition, 17 administrative personnel support the organization on a 40-hour workweek schedule. This structure ensures the most efficient and effective delivery of fire suppression and EMS services throughout the city.

The department's dedication to professional excellence is evident through its five-time international accreditation by the Center for Public Safety Excellence (CPSE). With over 25 years of continued accreditation and its current status extending through 2027, the Naperville Fire Department is one of only two nationally recognized legacy organizations. This achievement reflects the department's ongoing commitment to continuous improvement, professional credentialing, and adherence to best practices. It also highlights the department's strong working relationship with the Naperville Professional Firefighters IAFF Local 4302.

As part of a city where all three public safety agencies—Fire, Police, and the Emergency Management Agency—are accredited, the Naperville Fire Department contributes significantly



to Naperville's national recognition. In both 2024 and 2025, Niche.com ranked Naperville the Best City to Live in America, along with distinctions as the Best City to Raise a Family, Best City to Buy a House, and the City with the Best Public Schools. In 2025, Livability ranked Naperville as the Healthiest Place to Live in the U.S. and ranked Naperville third in education and overall safety. These rankings affirm the city's strong focus on community well-being and public safety. Through close collaboration with all city departments, the Naperville Fire Department supports broader city objectives while delivering high-quality services that help preserve Naperville's small-town atmosphere within a growing urban environment.

With its exceptional service, advanced capabilities, and a focus on continuous progress, the Naperville Fire Department stands as a model of excellence in public safety—committed to protecting lives, property, and the community it proudly serves.





CITY OF NAPERVILLE OVERVIEW AND LEGAL DESCRIPTION

The City of Naperville, incorporated in the State of Illinois in 1890, transitioned to a council-



manager form of government in 1969 to enhance administrative oversight and policy implementation. Under this system, City Council members are elected by residents and are responsible for the general governance of the City, including financial oversight, policy direction, and the allocation of resources. On February 5, 1985, the City

Council revised and adopted the Municipal Code of 1984, which formally established the City's organizational structure, including the fire department. This Code also outlines the policies and procedures that govern municipal operations, as well as the roles and responsibilities of each department and any board or commission created by the City Council. It further details the services provided by each department, ensuring transparency and accountability in the City's operations.

Each year, the Naperville City Council reviews and approves both the annual Operating Budget and the Capital Improvement Program (CIP). These key financial documents serve as the foundation for the City's fiscal planning, guiding the programs and services offered throughout the year. In addition to the budget, the City Council adopts a Priorities Plan on a semi-annual basis. This plan establishes key priorities and directs departmental efforts to focus on targeted areas of concern. Many of the goals identified in the Priorities Plan are directly aligned with those outlined in the budget. Copies of the City's annual operating budget can be accessed at: <https://www.naperville.il.us/government/city-finances>

As a home rule municipality under Article VII, Section 6 of the Illinois Constitution, the City of Naperville has broad authority to govern its local affairs. This includes the power to license for revenue, impose taxes, and change the form of government if approved by public referendum. The powers and functions of the Mayor and City Council are defined in Title 1, Chapter 5 of the Municipal Code, which establishes them as the City's governing authority. In addition to City Council meetings, the Municipal Code—specifically Title 2—provides for the creation of



various boards and commissions. These entities serve defined purposes and offer residents additional avenues for civic participation. Each board addresses specific subject areas and works in coordination with the authority having jurisdiction to support the City's broader goals and ensure community input is reflected in municipal decision-making.



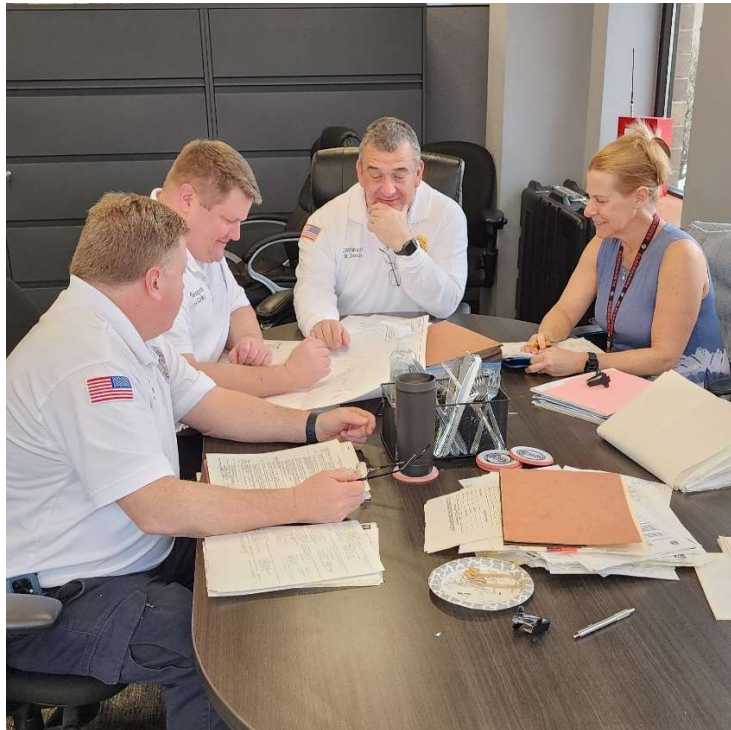
Naperville City Council: (from front to back) Councilman Syed, Councilwoman Gibson, Councilman Wilson, Councilwoman Jain, Mayor Wehrli, Councilman Dr. White, Councilman McBroom, Councilman Kelly, Councilman Holzhauer



GEOGRAPHIC PLANNING ZONES

The Naperville Fire Department serves an area of just over 50 square miles, with an estimated population of 153,124. This results in a population density of approximately 3,800 people per square mile. The department is responsible for protecting about 51,000 structures, including 54 designated as target hazards.

The department's boundaries are legally established and divided into 10 response areas, each with a fire station and dedicated resources. This deployment model is based on response plans and polygons designed for each zone.



To improve efficiency, the department uses data collected from its records management systems (RMS) to identify trends and make operational adjustments. Over the past decade, the department has increasingly used in-house tools like Power BI to visualize this data, which helps in shaping programs, services, and resource allocation.

For local guidance, the service area is further divided into 292 grids, each measuring half a mile by half a mile.

These grids are numbered from north to south and west to east. While properties within the city limits use the standard city addressing system, addresses in unincorporated areas follow a rural numbering system based on their mileage from the intersection of State and Madison Streets in Chicago.



NAPERVILLE FIRE PROTECTION DISTRICT ZONES

The Naperville Fire Protection District (NFPD) is a special-purpose taxing district established under Illinois state law to provide fire protection and emergency medical services (EMS) to specific unincorporated areas of Naperville. These areas lie outside the corporate limits of the city but still require reliable public safety services. Rather than operating its own fire department, the NFPD contracts with the City of Naperville to deliver professional fire and EMS services to residents and properties within the district. This partnership allows the district to ensure high-quality emergency response without the overhead of managing its own fire service infrastructure.

Governance of the district is handled by a three-member Board of Trustees, who are responsible for financial oversight, contract management, and policy decisions. Funding for the district comes from property taxes levied on parcels within its jurisdiction, specifically allocated for the provision of fire and EMS services. These taxes enable the district to maintain its service agreements with the municipal fire departments that respond to emergencies in the covered areas.

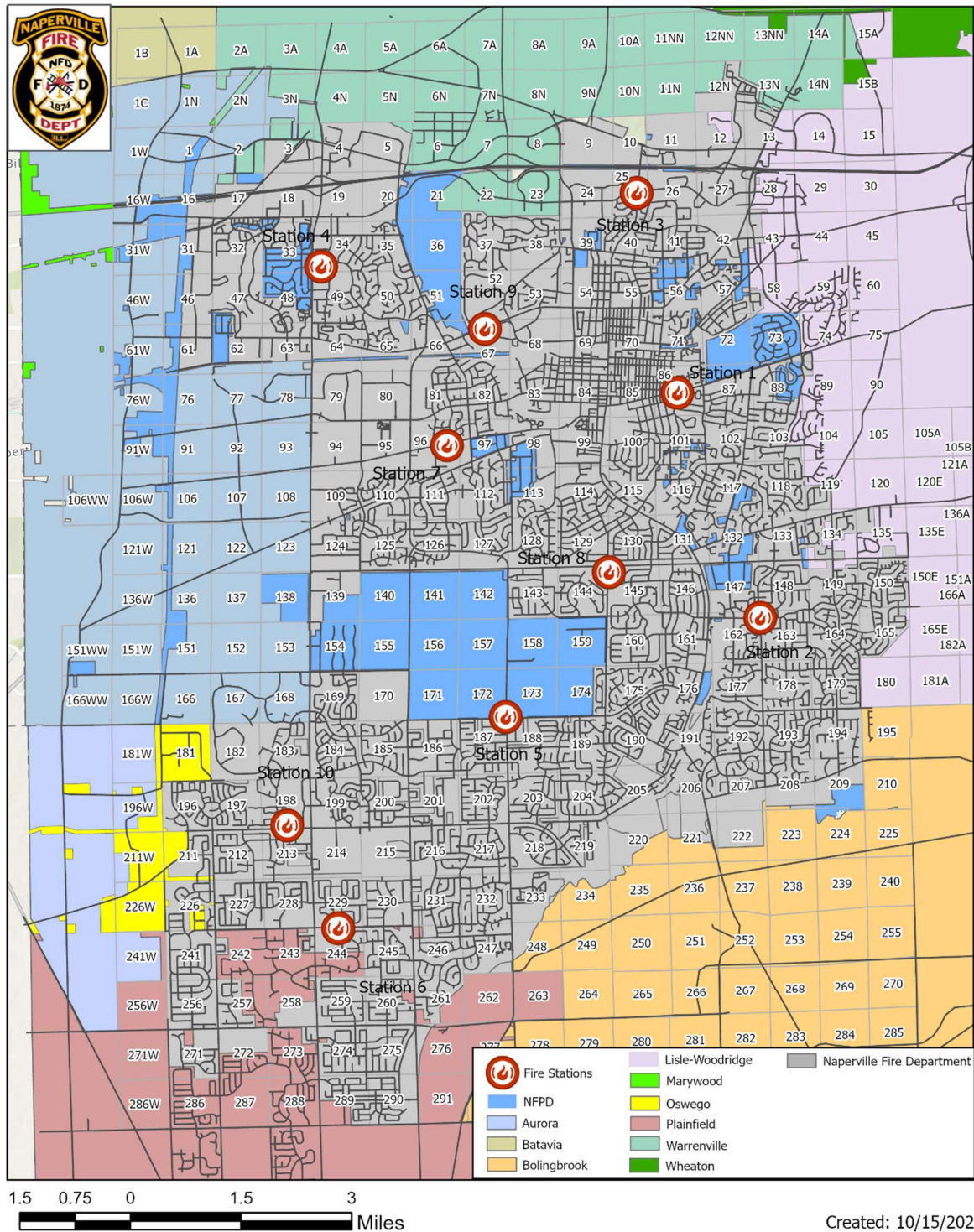
The NFPD includes only unincorporated parcels of land, some of which fall within the City of Naperville's planning boundary. While these properties are not part of the city itself, they are included in Naperville's long-term development and infrastructure planning. On official city maps, these areas are depicted in white, distinguishing them from incorporated zones. To help residents, developers, and planners identify these properties, the Transportation, Engineering, and Development (TED) Business Group of the City of Naperville publishes a detailed parcel map that outlines the exact boundaries of the Naperville Fire Protection District.

The existence of the NFPD fills a critical gap by ensuring that unincorporated areas, which are not served by municipal governments, still receive prompt and professional fire and EMS response. Through intergovernmental cooperation and focused funding, the district plays a vital role in public safety for those living just beyond the city limits.



NAPERVILLE FIRE PROTECTION DISTRICT ZONE MAP

Fire Protection District Map





AUTOMATIC AID AND MUTUAL AID AGREEMENTS

Service area boundaries that extend beyond the Naperville Fire Department's and Naperville Fire Protection District's immediate jurisdiction are clearly identified and supported through formal agreements with neighboring communities. These agreements include provisions for both automatic aid and mutual aid assistance, which are activated regularly to address local emergency response needs.

A key component of this cooperative framework is the Naperville Fire Department's participation in the Mutual Aid Box Alarm System (MABAS). MABAS represents the most significant source of external assistance. MABAS is specifically designed to provide rapid, organized support when local resources are overwhelmed due to high demand or other emergencies. Through this system, Naperville not only receives critical aid but also contributes support to other communities, as outlined in the MABAS Box Cards—documents that define resource allocations and are regularly updated, most recently in 2025. With participation from fire departments and emergency services agencies across Illinois, MABAS ensures a coordinated and effective response to large-scale incidents.

DEPARTMENT NAME: Naperville	BOX ALARM TYPE: Fire	EFFECTIVE DATE: July 2025	MABAS DIVISION: 16
BOX ALARM #: 1	LOCATION OR AREA: Still District 1	AUTHORIZED SIGNATURE: <i>Mark Dubnietis</i>	

ALARM LEVEL	ENGINES	TRUCKS	SQUADS	MEDICS	CHIEFS	SPECIAL EQUIPMENT (Ask if needed)	CHANGE OF QUARTERS (5, 7, 9)
STILL	CLOSEST SUPPRESSION VEHICLE						
DUAL RESPONSE	2 CLOSEST NAPERVILLE SUPPRESSION VEHICLES						
FULL STILL	NAPERVILLE NAPERVILLE	NAPERVILLE	NAPERVILLE	NAPERVILLE	NAPERVILLE BATTALION 1 NAPERVILLE BATTALION 2		
GENERAL	NAPERVILLE NAPERVILLE NAPERVILLE <i>Auto Aid may replace 1 engine</i>	NAPERVILLE NAPERVILLE	NAPERVILLE	NAPERVILLE CAR-47	NAPERVILLE BATTALION 1 NAPERVILLE BATTALION 2 MABAS RIT CHIEF (Liste)	MABAS 16 AIR UNIT NAPERVILLE UAS	ENGINES NAPERVILLE (5) NAPERVILLE (9) SQUAD NAPERVILLE (7) <i>(if available)</i> MEDICS NAPERVILLE (5, 7, 9)

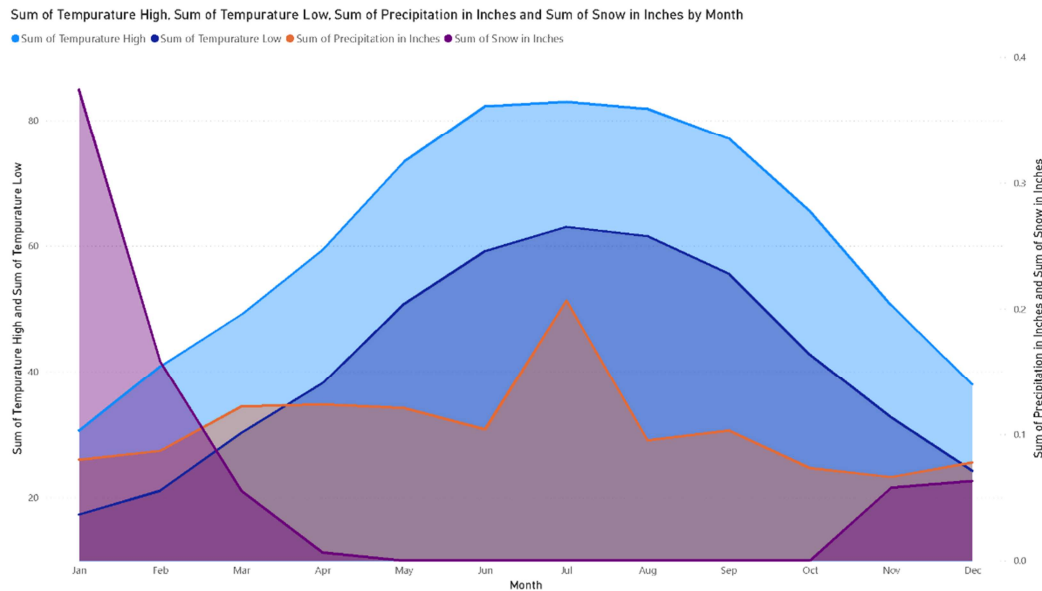
ALARM LEVEL	ENGINES	TRUCKS	SQUADS	MEDICS	CHIEFS	SPECIAL EQUIPMENT (Ask if needed)	CHANGE OF QUARTERS
BOX	NAPERVILLE WHEATON WARRENVILLE	LISLE WOODRIDGE			MABAS 16 IMAT	NAPERVILLE EMA MOC 1	ENGINES NAPERVILLE (5) NAPERVILLE (9) MEDICS NAPERVILLE (5, 7, 9)
2 ND	NAPERVILLE BOLINGBROOK Darien WOODRIDGE	AURORA	Naperville (if available, do not substitute)	NAPERVILLE		SALVATION ARMY CANTEEN IF NEEDED (Aurora: 800-564-9344)	ENGINES LOMBARD (9) NAPERVILLE (5) TRUCK PLAINFIELD (7)
3 RD	NAPERVILLE LOMBARD AURORA	PLAINFIELD					ENGINES OSWEGO (5) GLEN ELLYN (9) TRUCK NORTH AURORA (7) MEDIC ARGONNE (7)
4 TH	OSWEGO GLEN ELLYN WEST CHICAGO	NORTH AURORA	DOWNERS GROVE	ARGONNE	MABAS 20 IMAT		ENGINES TRI-STATE (5) CAROL STREAM (9) TRUCK OSWEGO (7) MEDIC ROMEDEVILLE (7)
5 TH	TRI STATE CAROL STREAM FERMI LAB	OSWEGO				SALVATION ARMY CANTEEN IF NEEDED (Ctywide Lake/Norridge: 800-561-0014)	ENGINES HINSDALE (9) BLOOMINGDALE (5) TRUCK MONTGOMERY (7)
INTERDIVISIONAL REQUEST	1 ST CHOICE 20			2 ND CHOICE 11		3 RD CHOICE 1	

SPECIAL INFORMATION:

- See EMS box card 1M for additional MEDICS



CLIMATE PROFILE



The City of Naperville's climate aligns closely with that of many Midwestern cities. The Midwest and Naperville have four distinct and predictable seasons, each presenting specific operational challenges. Data presented in the visualizations was provided by the National Oceanic and Atmospheric Administration (NOAA) Global Historical Climatology Network (GHCN).

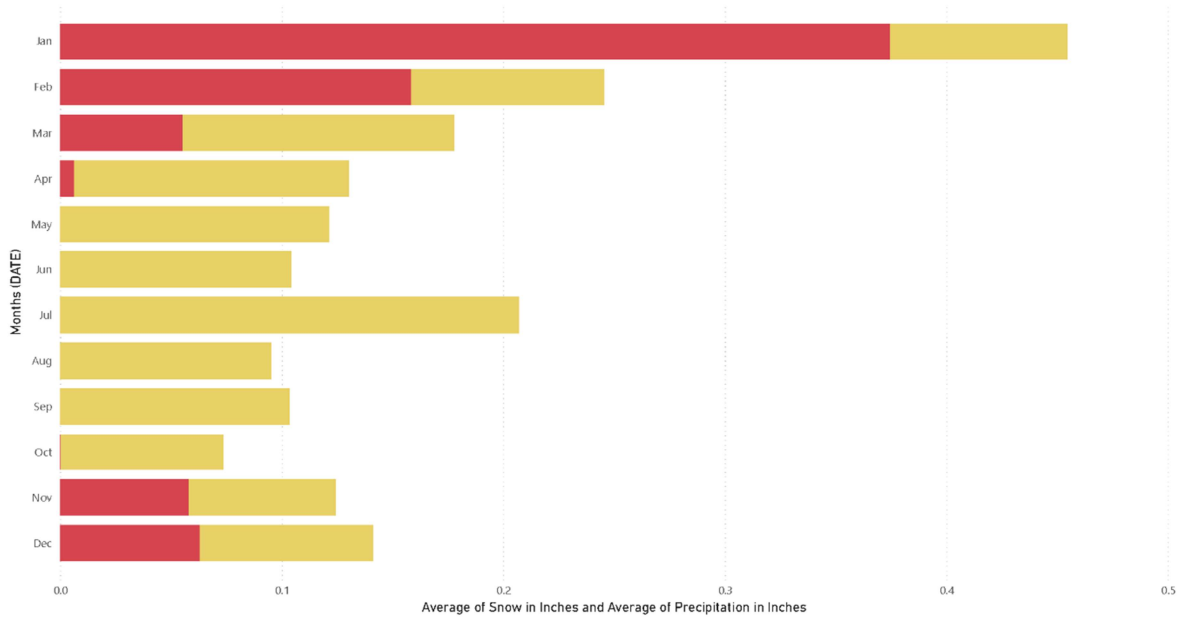
As noted above, the summer months in Naperville average above 80 degrees Fahrenheit. This often increases the risk of heat-related emergencies and complicates structural firefighting efforts. During these periods, regular personnel rotation is essential to maintain safety and effectiveness. On average, July is the warmest month, with an average maximum temperature of 86°F.

Winters, on the other hand, are generally cold to severely cold, posing additional hazards, particularly during fire operations. Ice formation can lead to a spike in motor vehicle accidents, slips, and injuries. January is usually the coldest month, averaging just under 23°F.



Average of Snow in Inches and Average of Precipitation in Inches by Months (DATE)

● Average of Snow in Inches ● Average of Precipitation in Inches

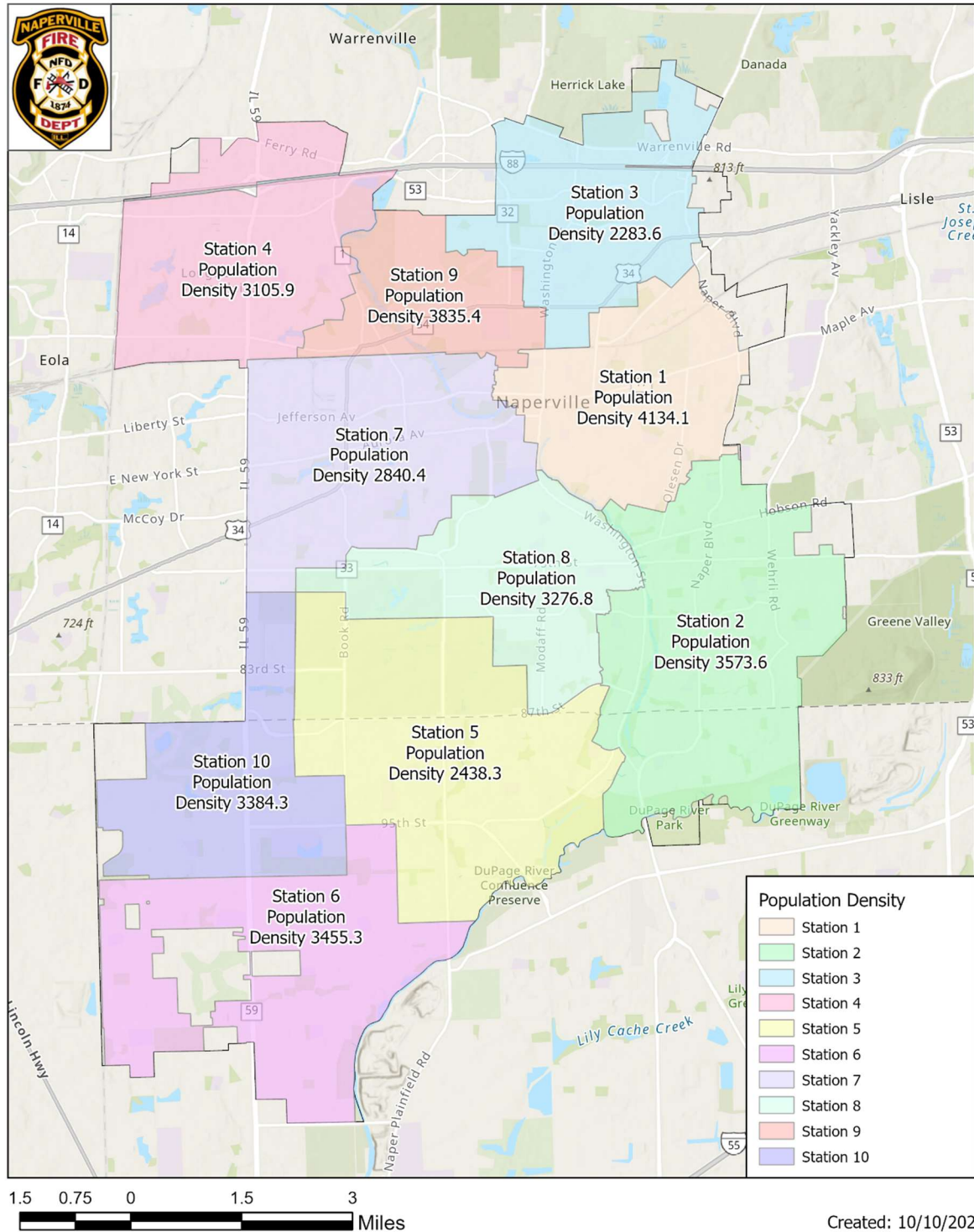


Naperville's wettest months are July with rain and January with overall precipitation. Winters have been relatively mild the past five years with regard to snowfall, with the majority occurring in January and February. Seasonal weather events include thunderstorms during the spring and summer, and snowstorms throughout the winter. Heavy rains in the warmer months have previously led to localized flooding, primarily affecting low-lying floodplain areas and regions adjacent to the DuPage River.



POPULATION DENSITY/GROWTH

Population Density





The Naperville Fire Department, in coordination with the city's TED/GIS Division, maintains a comprehensive demographic database that is regularly updated to reflect changes in population density and distribution. These data sets inform spatial analysis used to model service demand and optimize response coverage. Utilizing these metrics, the department—working alongside community planning staff—has established response time performance benchmarks consistent with both operational objectives and community-defined service expectations.

Planning and resource allocation decisions are guided primarily by three growth indicators: projected population increases, annual building permit volumes, and forecasts of new residential and commercial construction. Through active participation in the municipal planning process, department personnel have access to early-stage development data, enabling predictive assessments of future service demand and allowing for preemptive adjustments in deployment strategies, infrastructure, and staffing models.

Population growth remains a consistent factor influencing service delivery. Between 2020 and 2024, the city's population expanded from 149,540 to 153,124, representing a 2.4% increase and an average annual growth rate of approximately 0.74% (roughly 800–1,000 new residents per year). These trends are incorporated into the department's annual planning cycle and long-range forecasting models to ensure that fire protection and emergency response capabilities scale appropriately with community development.



2020 Census Summary

City of Naperville
Geography: Place



The 2020 Census data includes information on population and housing as well as detailed data on age, sex, race, Hispanic origin, household and family type, relationship to householder, group quarters population, housing occupancy, and tenure.

Households by Size	Number	Percent
Total Households	53,221	-
1-Person Household	10,511	20%
2-Person Household	16,486	31%
3-Person Household	9,647	18%
4-Person Household	10,922	21%
5-Person Household	4,023	8%
6-Person Household	1,174	2%
7+ Person Household	458	1%
Average Household Size	2.76	-

Households by Type



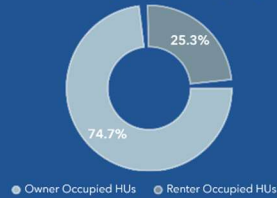
■ Married Couple (65%)
■ Cohabiting Couple (4%)
■ Male Householder: No Spouse (11%)
■ Female Householder: No Spouse (20%)

Source: This infographic contains data provided by U.S. Census (2000, 2010, 2020). © 2025 Esri

KEY FACTS

149,563 Total Population	55,361 Housing Units	3,800.4 Population Density	2.76 Average Household Size	53,221 Total Households	60.0 Diversity Index
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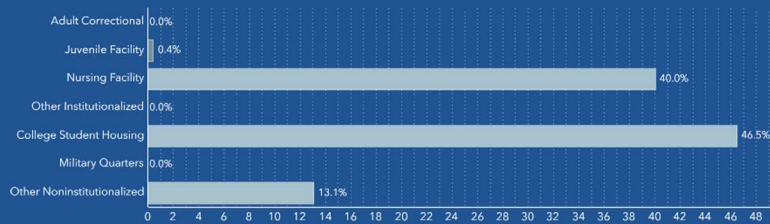
Total Housing Units by Occupancy



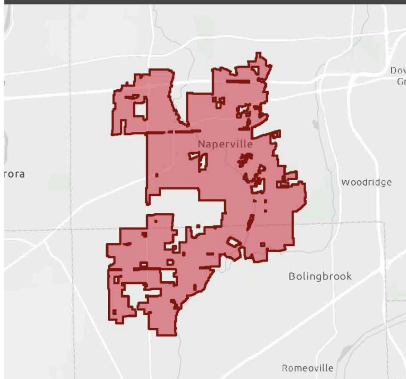
Total Housing Units by Vacancy



Group Quarters Population



Fire District Profile Naperville City, IL 2025



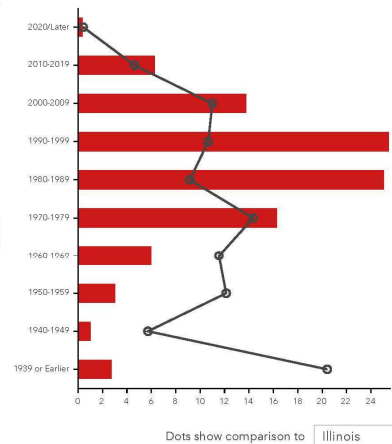
HOUSING INFORMATION



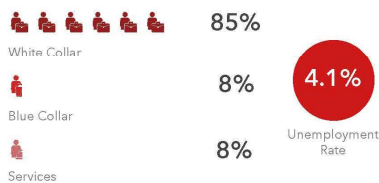
HIGH-RISK OCCUPANCIES



HOUSING AGE BY YEAR BUILT



EMPLOYMENT

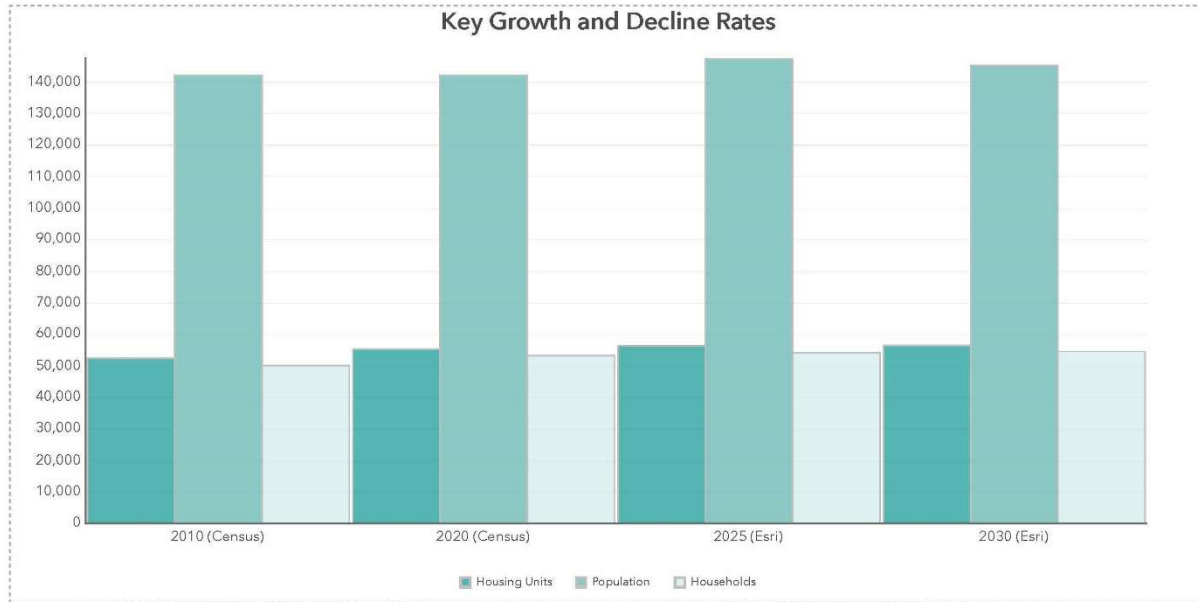


BUSINESSES



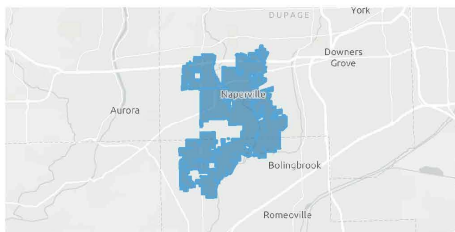
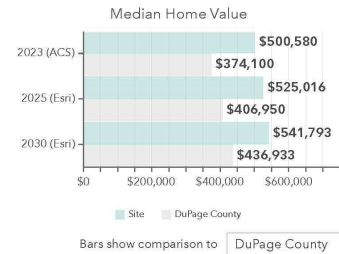
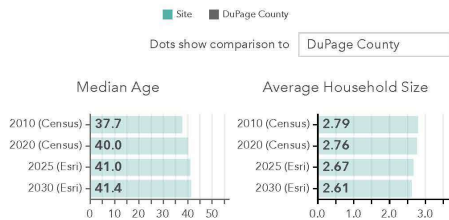
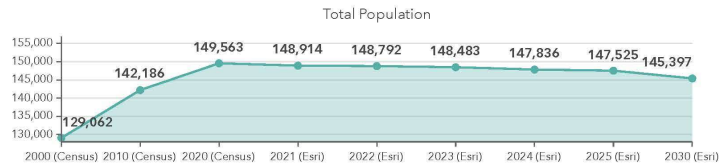
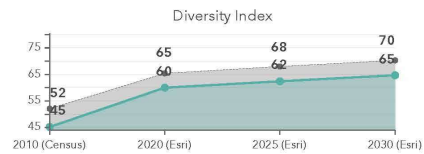
INCOME



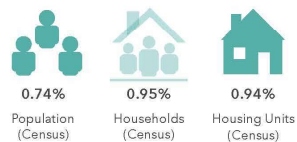


Community Change Snapshot

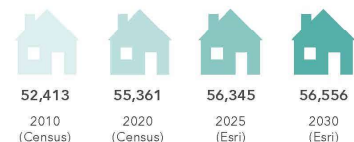
City of Naperville
Geography: Place



2000-2020 Compound Annual Growth Rate



Total Housing Units: Past, Present, Future



Source: This infographic contains data provided by U.S. Census (2000, 2010, 2020), Esri (2025, 2030), ACS (2019-2023), © 2025 Esri



SOCIOECONOMICS

An analysis of socioeconomic data alongside emergency incident trends provides valuable insight into the underlying factors that influence community risk and service demand.

Socioeconomic variables, such as income levels, population density, educational attainment, and age demographics, are placed within a correlation matrix to identify how they impact both the frequency and type of emergency incidents. For example, areas with higher population density or older housing stock may experience increased fire risk, while neighborhoods with lower household income or limited healthcare access may show elevated medical call volumes.

Conversely, higher-income areas may experience fewer preventable incidents but generate more specialized service requests related to mobility or ageing populations. By integrating demographic and socioeconomic data with geospatial incident analysis, the department can identify patterns of vulnerability and allocate resources equitably. The department can then tailor prevention, education, and response strategies to the specific needs of the community. This data-driven correlation supports the CFAI goal of aligning service delivery with actual community risk rather than uniform service distribution.

The Naperville Fire Department analyzed data from the US Census Bureau, combined with incident response data, to generate a correlation matrix heatmap to assess variation in incident counts. The correlation analysis examined the relationship between census demographic variables and incident call volume. Log-transformed population density and log-transformed incident call counts were used to reduce outlier influence and make the data more linear.

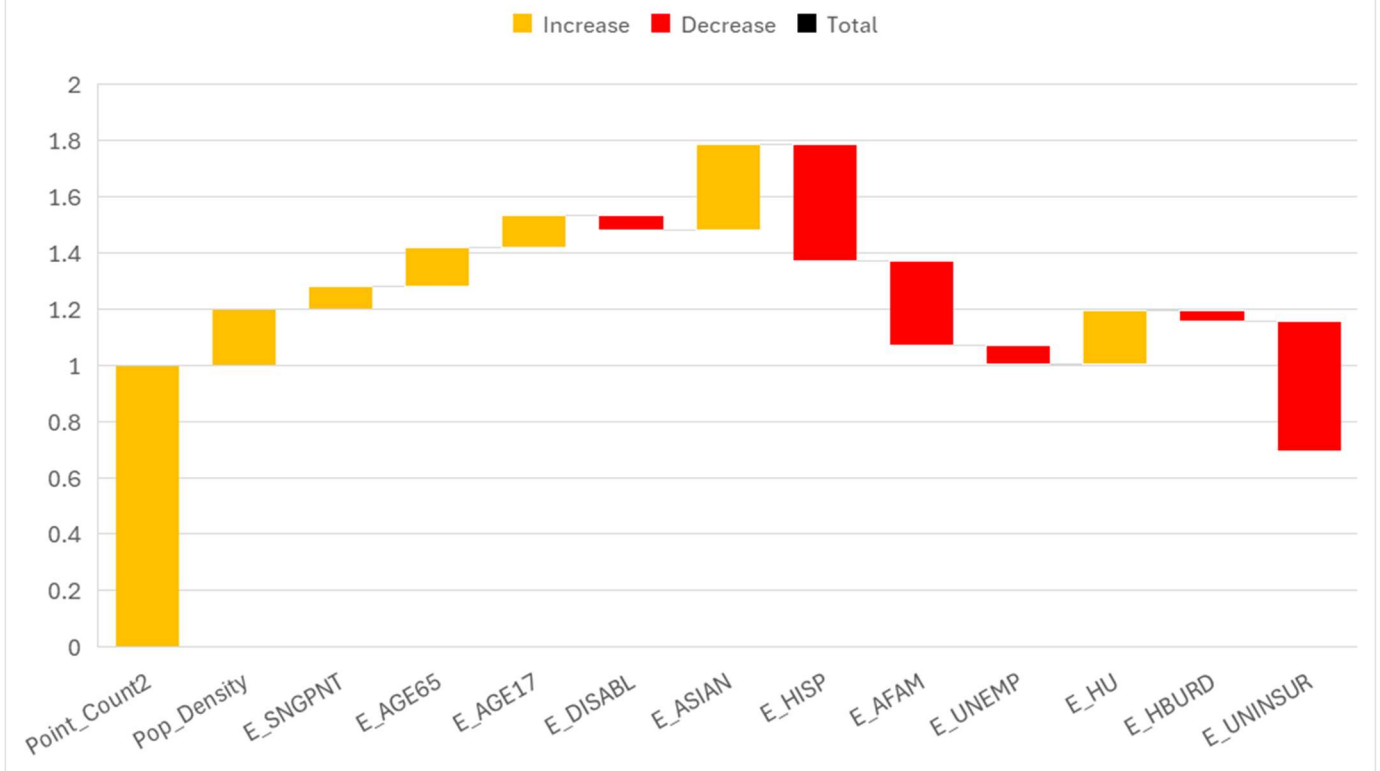
Although weak, population density exhibited the strongest positive correlation with incident count. This indicates that population density alone explains only a small portion of the variation in call volume. Several demographic and socioeconomic variables demonstrated associations with incident calls, including the proportion of Asian residents, housing units, and unemployment. Additionally, higher proportions of Hispanic residents and uninsured populations were negatively correlated with call volume. These findings suggest that incident call volume is influenced by a combination of population composition and housing characteristics rather than population density alone.



CORRELATION MATRIX

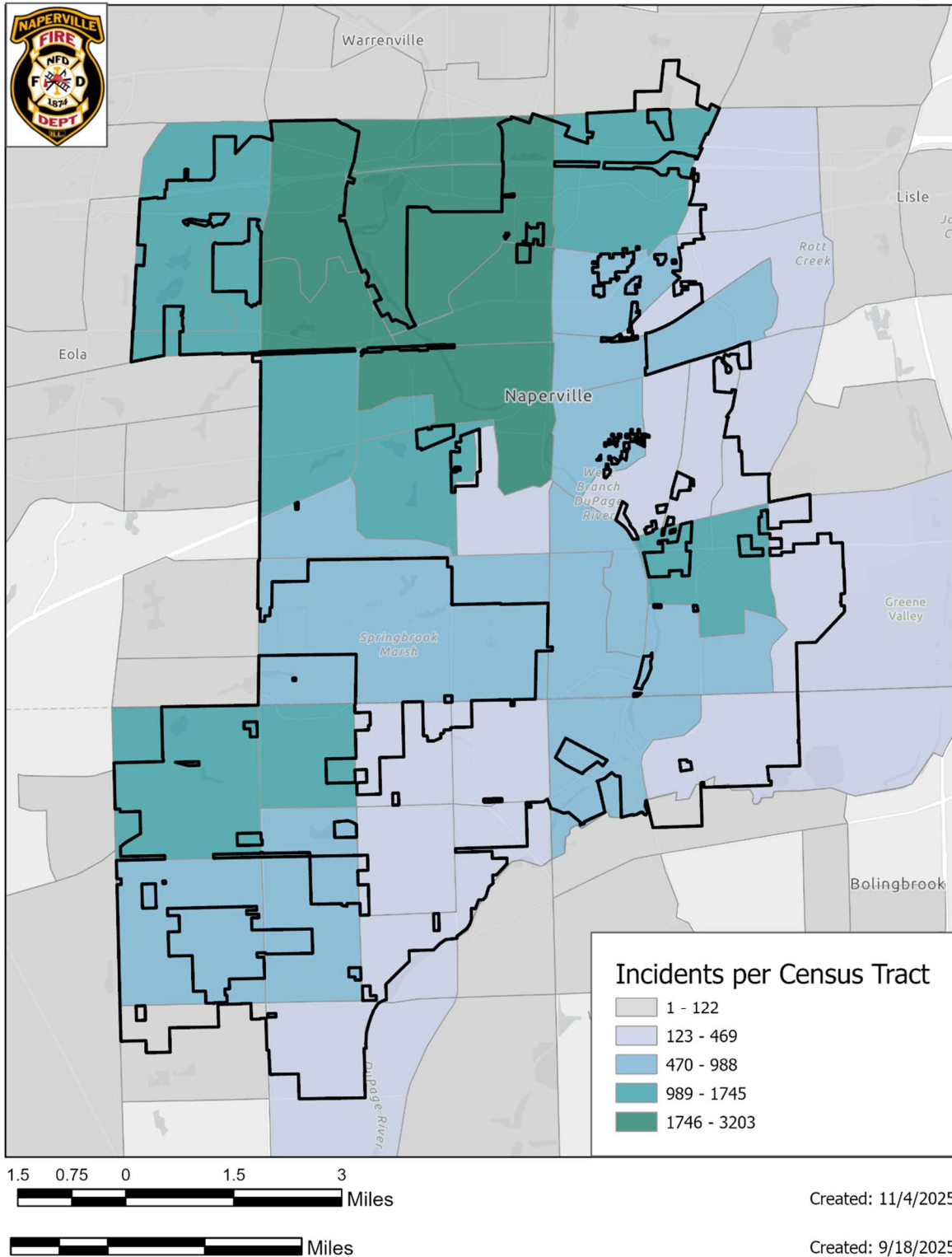
	Point_Count2	Pop_Density	E_SNGPNT	E_AGE65	E_AGE17	E_DISABL	E_ASIAN	E_HISP	E_AFAM	E_UNEMP	E_HU	E_HBURD	E_UNINSUR
Point_Count2	1												
Pop_Density	0.199986244	1											
E_SNGPNT	0.082743099	-0.078436467	1										
E_AGE65	0.137684015	-0.103630616	-0.021834907	1									
E_AGE17	0.112353837	0.095635202	0.366165706	-0.077788113	1								
E_DISABL	-0.053085796	-0.133107129	0.221231651	0.520399921	0.022995627	1							
E_ASIAN	0.304477768	0.079043496	0.223263658	-0.203974188	0.452677534	-0.319862553	1						
E_HISP	-0.411501944	0.048524574	0.135944175	-0.099113585	0.072580574	0.268191071	-0.312607425	1					
E_AFAM	-0.300494615	0.05055187	0.623432273	-0.16455214	0.324649281	0.126486118	0.222605254	0.307230145	1				
E_UNEMP	-0.068599992	0.063694496	0.345780055	0.104446511	0.204229119	0.274396073	0.027081984	0.215256689	0.455201976	1			
E_HU	0.192543299	0.093113694	0.488325128	0.520747101	0.469778386	0.410818452	0.291499812	0.010671014	0.332375464	0.403996377	1		
E_HBURD	-0.040035502	0.079288027	0.505337399	0.270637491	-0.025433247	0.456612003	-0.085316712	0.269201464	0.36818672	0.381405918	0.596770249	1	
E_UNINSUR	-0.461297668	0.102918436	0.312575901	-0.092381722	0.101162141	0.312256206	-0.193544992	0.728569503	0.571260642	0.358655381	0.16129549	0.414293391	1

Positive and Negative Correlation by Census Type



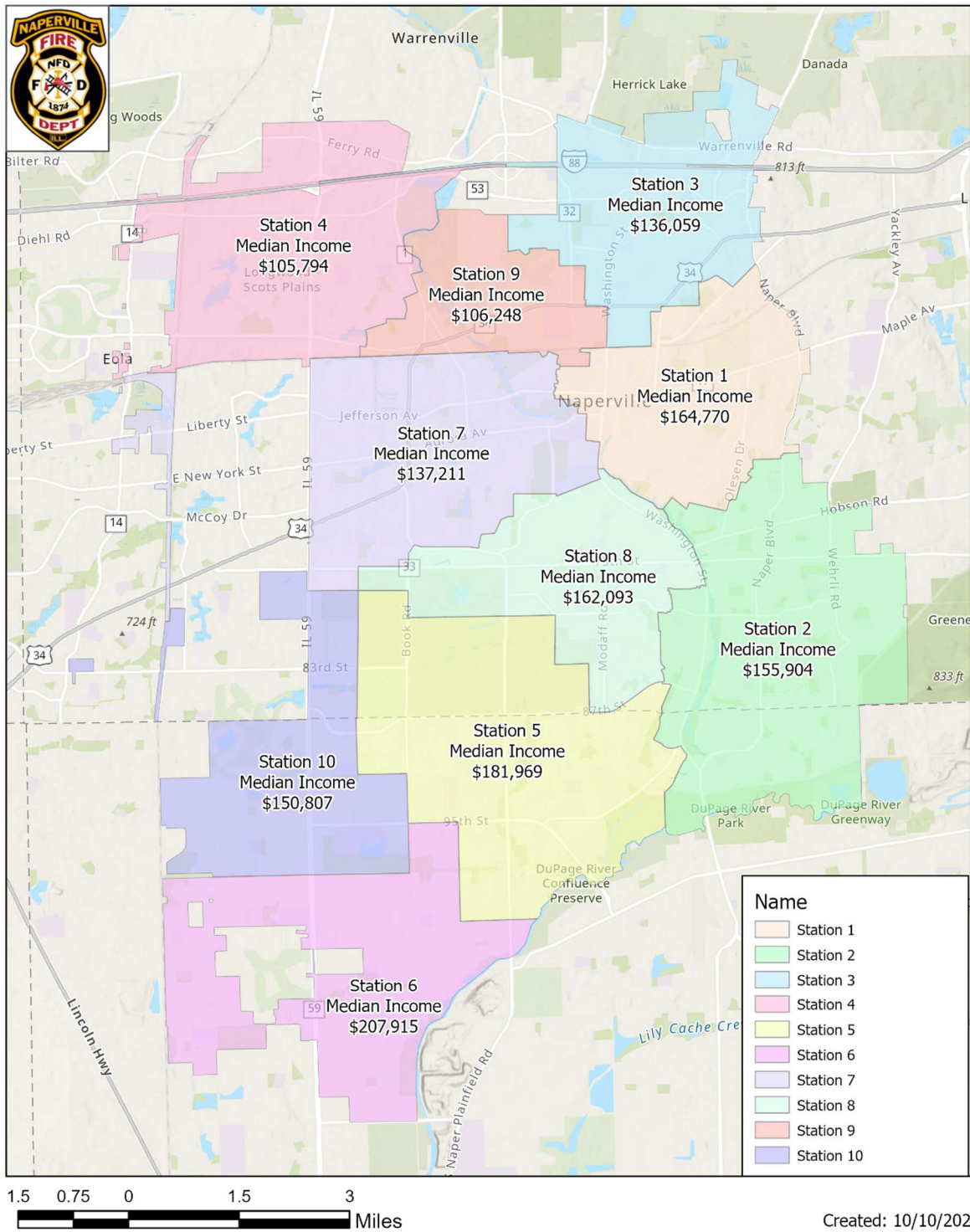


Historical Incidents by Census Tract





Median Income





CRITICAL INFRASTRUCTURE

The city's planning area contains a diverse array of critical infrastructure components that significantly influence community risk and emergency response requirements. These include major transportation corridors, rail lines, utility systems, and key public and institutional occupancies. Each component has been identified, mapped, and integrated into the Naperville Fire Department's Standards of Cover and Community Risk Assessment process to ensure that service delivery strategies reflect existing and emerging community hazards.

The transportation network is a primary element of the city's critical infrastructure. Interstate 88 (Ronald Reagan Memorial Tollway) forms the northern boundary of the jurisdiction and serves as a major regional commerce and commuter corridor. Surrounding this corridor are numerous high-rise buildings, technology facilities, industrial and commercial centers, hotels, and retail developments. In addition, according to the Illinois Department of Transportation, State Route 59 carries a daily traffic volume of 50,000-99,000 vehicles a day, with State Route 34 carrying a daily traffic volume of 20,000-49,999 vehicles. Both of these state routes are characterized by dense commercial occupancies. The Naperville Fire Department utilizes transportation and collision data provided by the TED/GIS and the Fire Department RMS to analyze incident frequency, severity, and location patterns, which are incorporated into pre-incident planning, unit deployment, and response modeling.

Two major rail lines traverse the city: the Burlington Northern Santa Fe (BNSF) and the Canadian National (CN). Combined, these lines accommodate approximately 60 freight trains per day. The BNSF corridor also supports Metra commuter service, with an estimated 10,000 daily passenger boardings distributed between two city stations. The Fire Department maintains response protocols for rail-related incidents, including hazardous materials releases, derailments, and mass-casualty events. Rail infrastructure data are maintained within the city's GIS platform and are used to support pre-incident analysis and scenario planning.





Naperville also operates and maintains its own electric and water utility systems, which collectively encompass more than 35 critical facilities. These include electrical substations, generation and distribution assets, and potable water production and storage sites. All static and dynamic water sources, as well as underground utilities, are identified within the city's GIS database. The Fire Department has developed standard operating procedures for emergency incidents involving these facilities and integrates this information into response and contingency plans.

Additional target hazards include educational institutions, healthcare facilities, and government



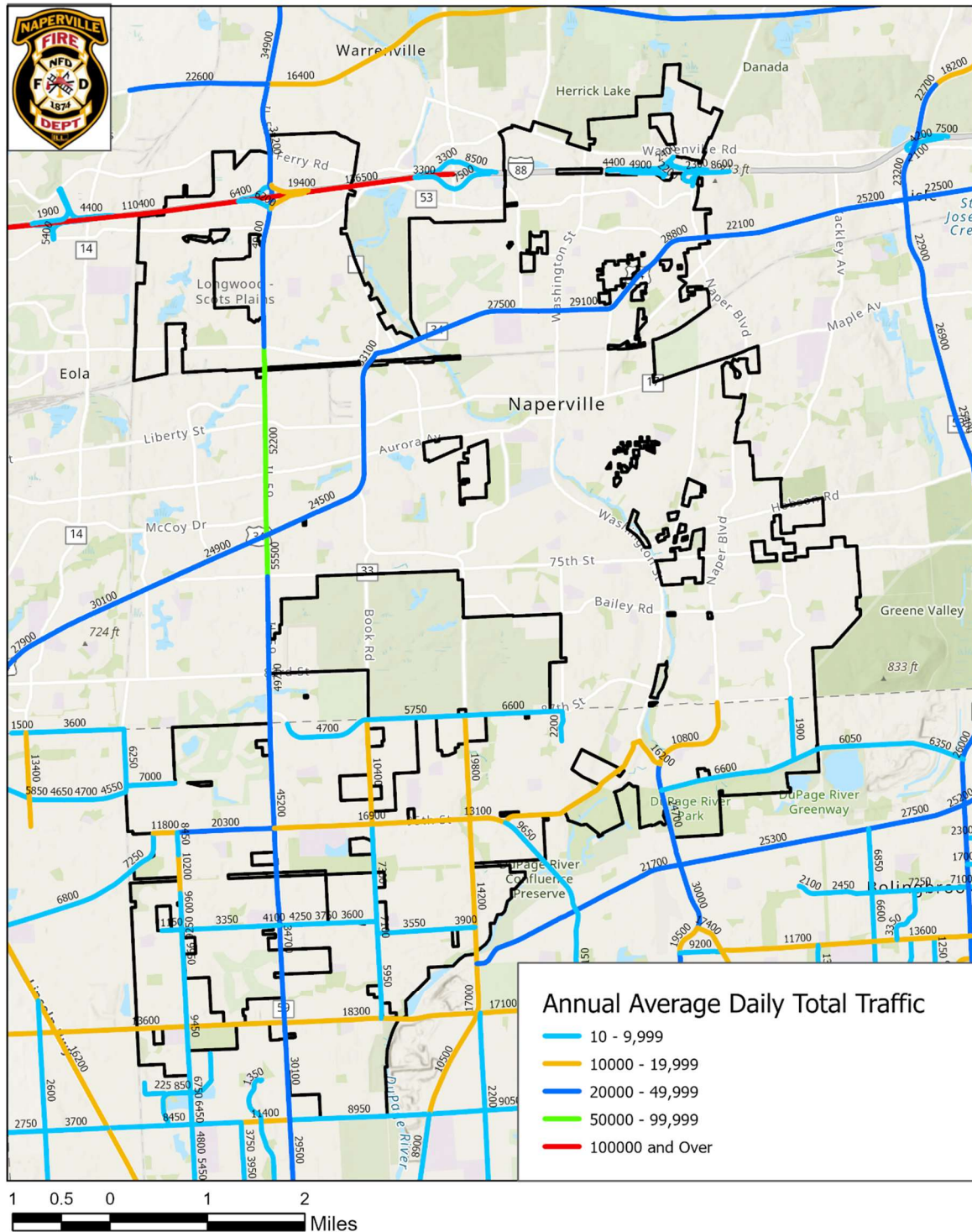
or civic occupancies. The jurisdiction contains three high schools and one college, each serving between 3,000 and 4,000 students, as well as 114 total educational facilities. There are also 56 houses of worship and 30 critical government and service buildings, including a Secretary of State office, three U.S. Post Office locations, and 21 city-owned

facilities. Edward Hospital, employing more than 5,000 personnel, represents a major healthcare and emergency resource hub within the community. Each of these occupancies has been analyzed for life-safety risk, potential incident impact, and resource demand as part of the department's Standards of Cover process.

Critical infrastructure mapping is considered sensitive information and is not distributed publicly. To maintain operational security, maps produced for planning purposes identify only general system layouts and omit specific coordinates, street identifiers, or infrastructure details. Complete datasets are securely maintained by the TED Department and are accessible to the Fire Department for authorized emergency response and planning activities.

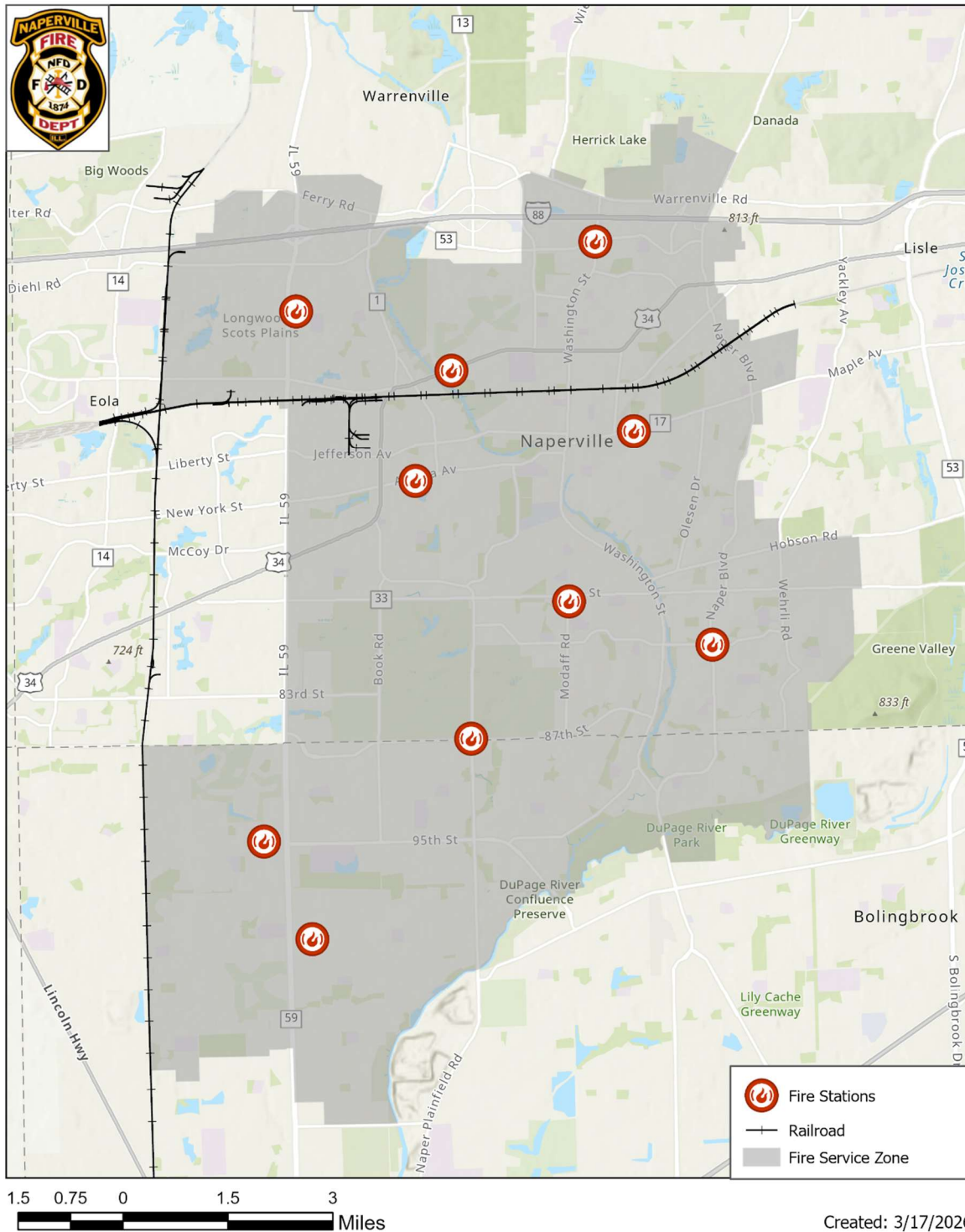


2023 Annual Average Daily Total Traffic



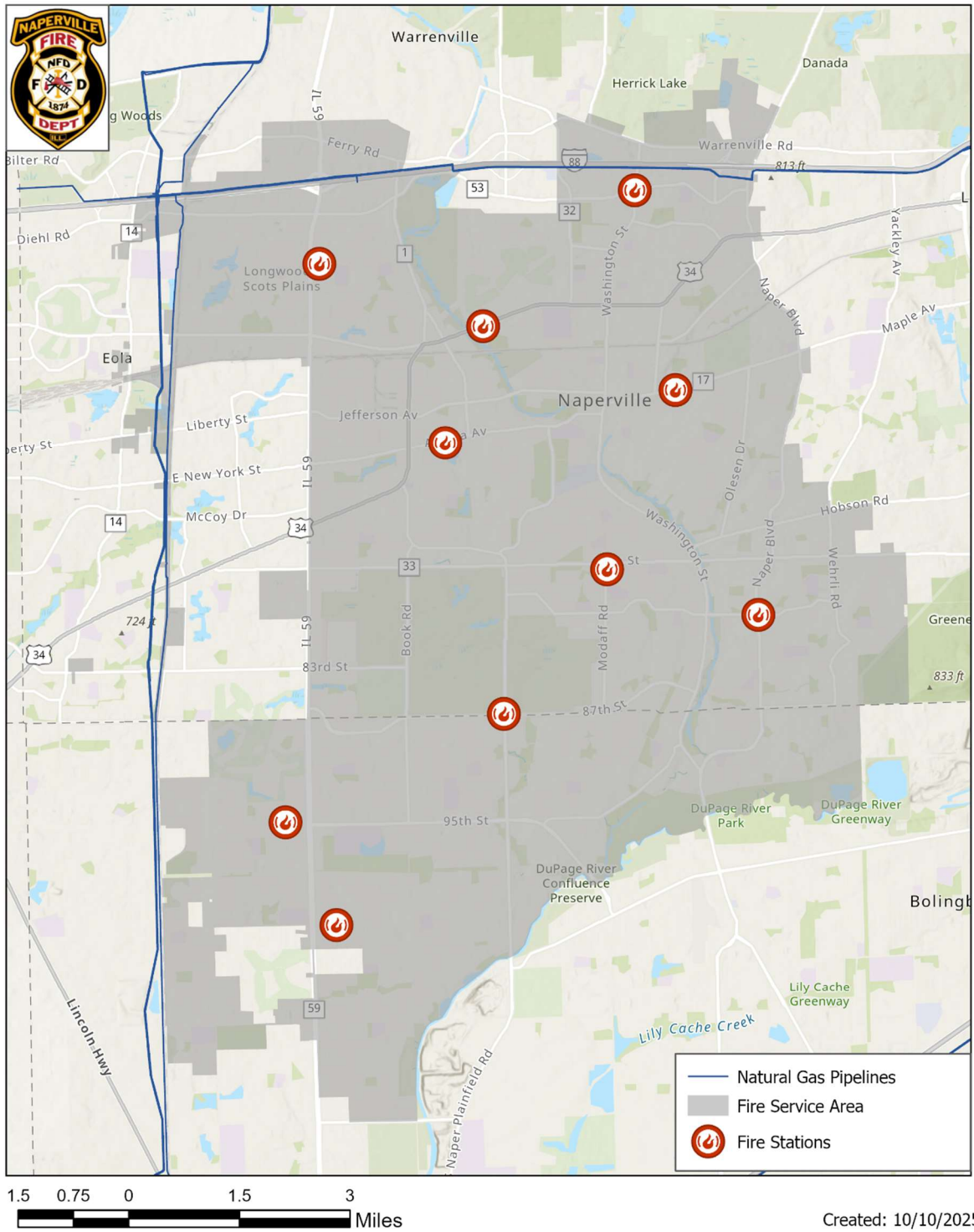


Naperville Rail Lines



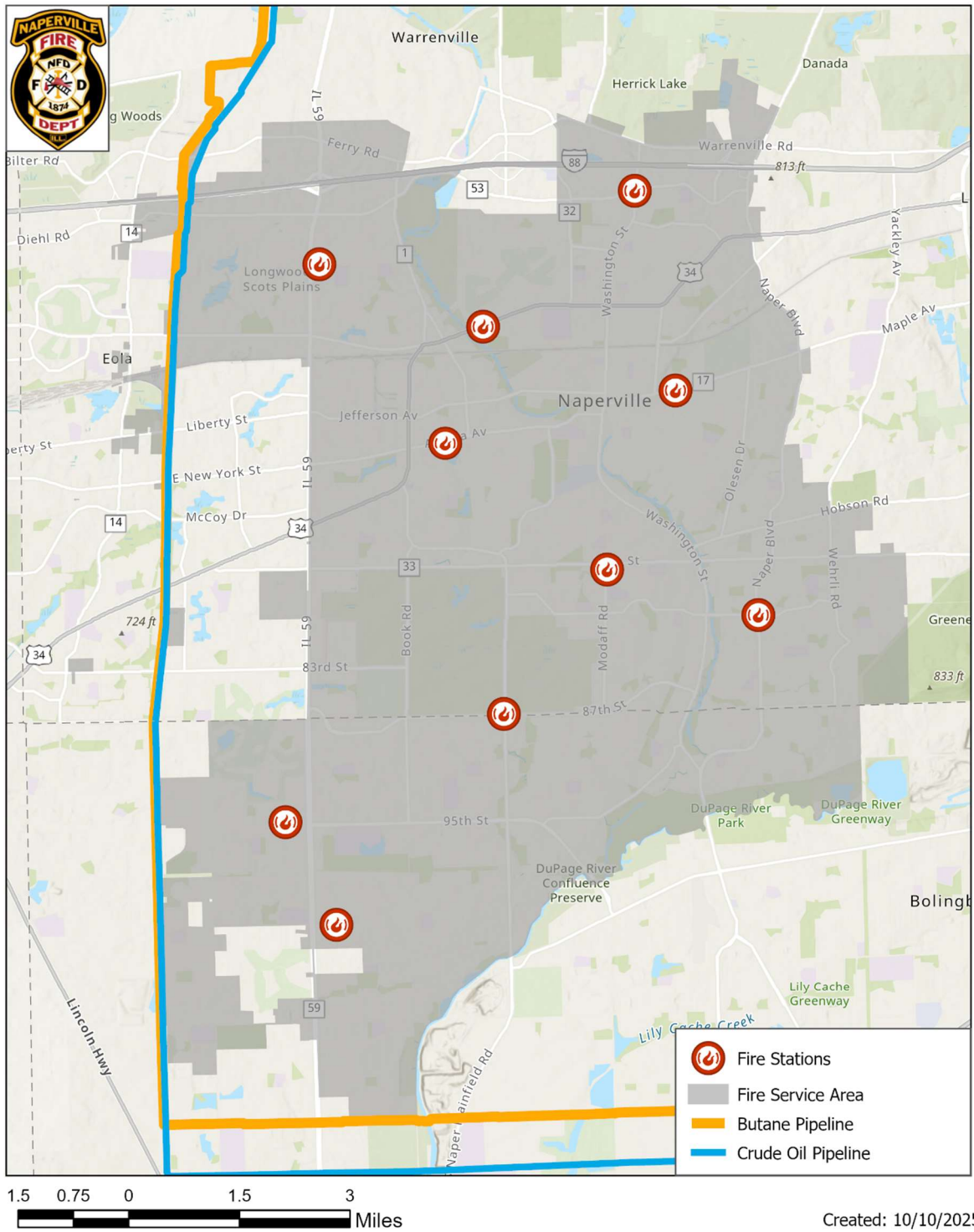


Natural Gas Pipeline Map



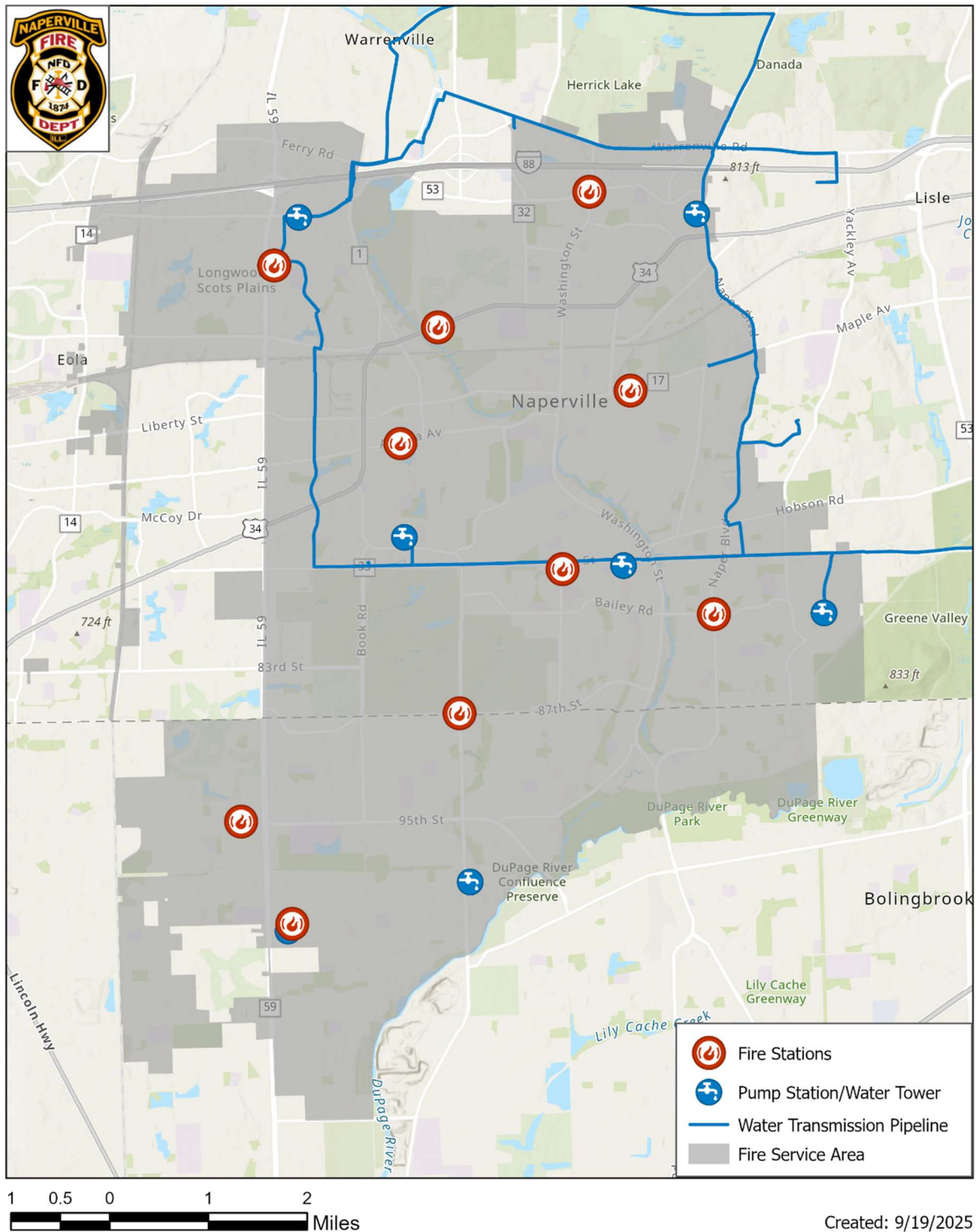


Petroleum Pipeline Map

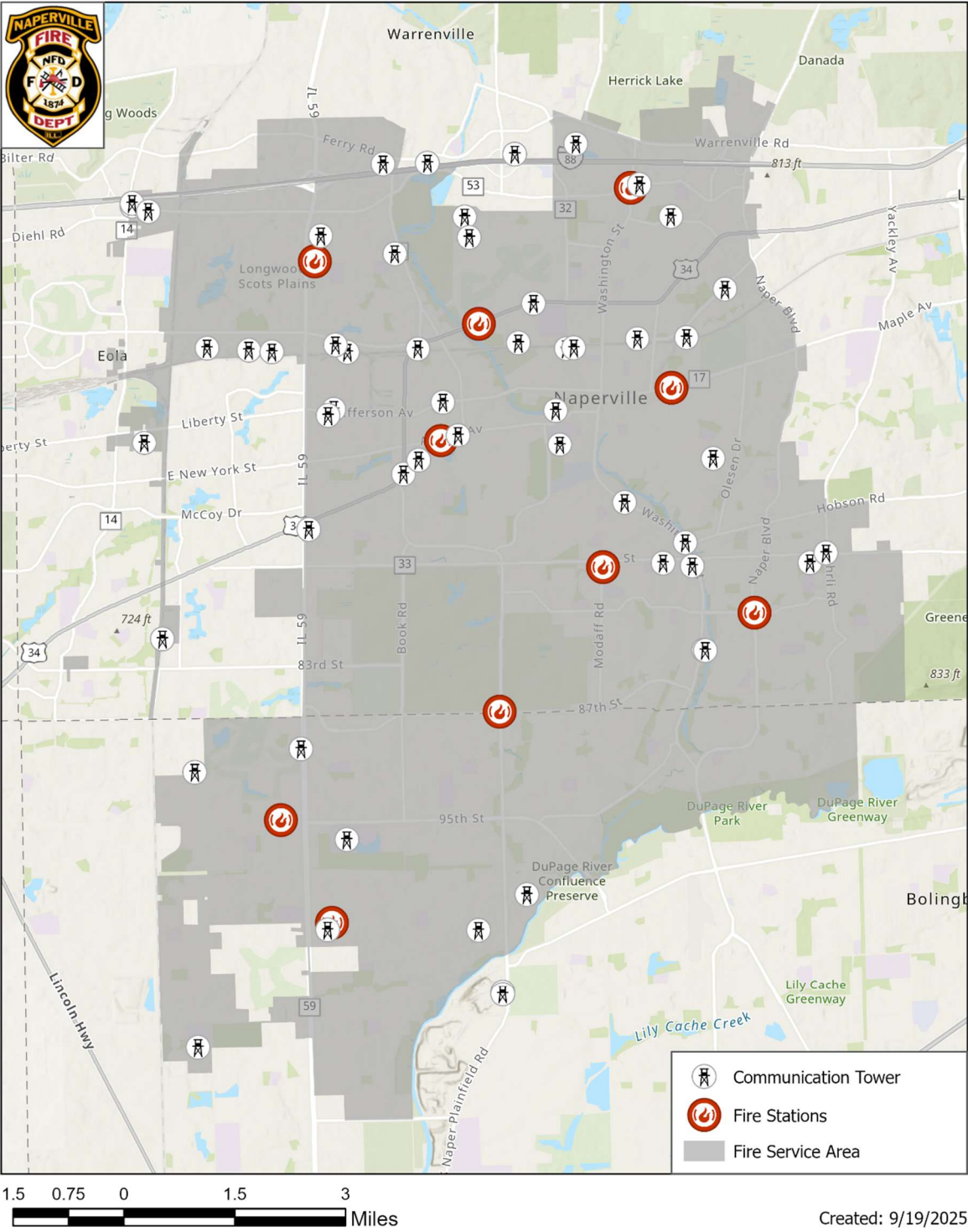




Water Infrastructure Map



Other Sensitivities Map





SUMMARY OF TARGET HAZARDS

The department systematically identifies, documents, and maintains an accurate and comprehensive inventory of target hazards within the community. A majority of these target hazards are concentrated in the northern response zones and consist primarily of nursing care facilities, educational institutions (high schools), hospitals, and large-scale manufacturing and research operations with elevated risk profiles. Based on the department's risk assessment, the four highest-priority target hazards are as follows:

Edward Hospital – Located at 801 S. Washington St.

Edward Hospital was originally established in 1907 as the Edward Sanatorium, one of Illinois' first tuberculosis treatment centers. As tuberculosis cases declined, the facility transitioned into a general hospital in 1955 and was renamed *Edward Hospital* in 1958. Over subsequent decades, it evolved into a major regional medical center, expanding its services to include the Edward Heart Hospital, a Neonatal Intensive Care Unit (NICU), and a comprehensive Cancer Center.

In 2013, Edward Hospital merged with Elmhurst Memorial Healthcare to form *Edward-Elmhurst Health*. In January of 2022, *Edward-Elmhurst* joined with Northshore University Health System to form Endeavor Health, one of the largest integrated healthcare systems in the Chicago metropolitan area. Today, Edward Hospital is recognized for its advanced medical technology, high standards of clinical care, and excellence in nursing and patient satisfaction.



**Fire Protection and Life Safety Systems:**

Edward Hospital is equipped with a full fire protection and suppression system throughout its facilities, including the five-story bed tower and the eight-story Heart Hospital. These systems support rapid detection and suppression capabilities appropriate for a high-occupancy healthcare environment.

Risk Considerations:

- High life hazard due to continuous patient occupancy, including immobile and critical-care populations.
- Complex building layout and multi-story configuration.
- Essential facility with regional significance; disruption could impact area-wide healthcare delivery.

Monarch Landing – Located at 2255 Monarch Dr.

Monarch Landing is a continuing care retirement community (CCRC) designed to provide a full continuum of care for older adults, including independent living, assisted living, memory care,



and skilled nursing services. The community opened in the mid-2000s to meet the increasing demand for high-quality senior living options in the western suburbs of Chicago.

Located off Ferry Road near Route 59, Monarch Landing emphasizes active, maintenance-free living

within a secure and socially engaging environment. The campus features modern residential apartments, walking trails, dining venues, fitness and wellness centers, and a variety of community amenities that support resident independence and well-being.



The community includes *The Springs Health Center*, an adjacent healthcare facility offering rehabilitation, memory care, and long-term skilled nursing services to residents.

Fire Protection and Life Safety Systems:

All facilities within Monarch Landing are equipped with full fire protection and suppression systems. The structures incorporate modern construction standards, fire-rated building materials, and life safety features designed to meet or exceed current code requirements for residential healthcare and senior living occupancies.

Risk Considerations:

- High life hazard due to elderly and mobility-limited residents.
- Large, multi-building complex with mixed occupancies and interconnected systems.
- Need for coordinated evacuation and shelter-in-place procedures during emergencies.
- Essential facility providing healthcare continuity for dependent populations.

Mondelez – Located at 1555 W. Ogden Ave.

Mondelez International operates a large-scale food production facility in Naperville, Illinois, continuing a long industrial history on the site originally established by Nabisco. Following the



2012 corporate separation of Kraft Foods, the Naperville plant became a key manufacturing and distribution hub for Mondelez's well-known snack brands, including *Oreo*, *Ritz*, and *Chips Ahoy*.

The facility conducts high-volume food processing, packaging, and warehousing operations. It plays a vital role in Mondelez's North American supply chain, producing a variety of baked goods and snack products for national and international



distribution. The site incorporates manufacturing, quality control, logistics, and administrative areas within a large industrial complex.

Fire Protection and Life Safety Systems:

The Mondelez manufacturing facility is equipped with a fully automatic fire sprinkler system and various special hazard suppression systems designed to protect high-risk process areas. Fire detection and alarm systems are installed throughout the plant, with fire department connections and hydrants positioned for rapid response. Industrial ventilation and dust control systems are maintained to minimize combustion and explosion risks common in food processing environments.

Risk Considerations:

- High property and production continuity risk due to large-scale manufacturing operations.
- Potential combustible dust and heat hazards from baking and packaging processes.
- Complex facility layout with multiple process lines and storage areas containing combustible materials.
- Economic significance as a regional employer and critical component of the food supply chain.

Calamos – Located at 2135 City Gate Ln.



The Calamos development, known as *CityGate Centre*, is a major mixed-use complex located on Naperville's north side. Established in the mid-2000s, the development was designed to serve as a premier corporate, hospitality, and entertainment hub for the region. Anchored by the Calamos Investments headquarters, the site also includes the



Hotel Arista—Naperville’s first AAA Four Diamond hotel—along with multiple Class A office buildings, restaurants, event spaces, wellness centers, and retail establishments.

Over time, CityGate Centre has expanded to include residential and community-focused amenities, positioning it as one of Naperville’s most prominent business and lifestyle destinations. The property is owned and managed by *Calamos Real Estate*, which continues to guide its sustainable growth and integration within the surrounding community.

Fire Protection and Life Safety Systems:

Each structure within CityGate Centre incorporates comprehensive fire protection and suppression systems appropriate to its occupancy type:

- **Hotel Arista:** 12-story structure equipped with a complete automatic sprinkler system and integrated fire detection and alarm coverage.
- **Office Building:** 7-story facility fully sprinklered, including specialized suppression systems serving critical IT and data center rooms.
- **Restaurants and Retail Areas:** Protected by automatic sprinkler systems and commercial kitchen hood suppression systems in accordance with NFPA standards.
- **Campus Infrastructure:** Includes exterior hydrants, fire department connections, and access routes designed to facilitate effective emergency response operations.

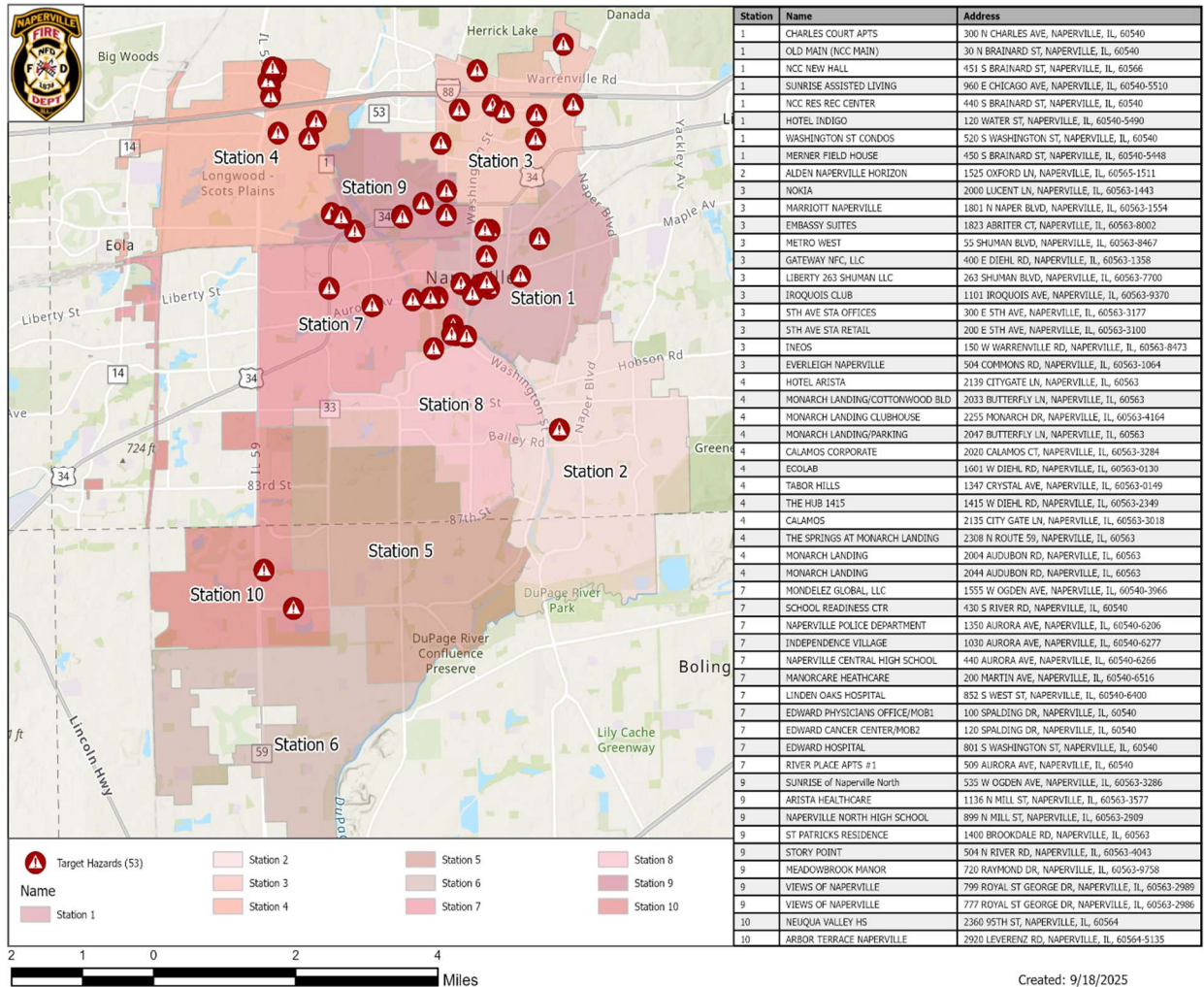
Risk Considerations:

- High life hazard in hospitality and public assembly occupancies.
- Mixed-use environment with varied hazards, including lodging, office, and restaurant operations.
- Complex multi-building layout requires coordinated pre-incident planning and response strategies.
- Significant economic and community impact due to the concentration of business, residential, and tourism activity.



TARGET HAZARD MAP

Target Hazard Map





CITY FINANCES

The City of Naperville continues to demonstrate a stable and resilient financial and economic environment that supports the delivery of municipal and emergency services. A strong local economy, conservative fiscal management, and a diversified revenue structure have enabled the City to sustain high service levels while maintaining its AAA bond rating. These conditions provide a solid foundation for the fire department and other city services as they plan for future community growth and evolving risk.

Naperville's economy remains a regional leader, attracting residents, visitors, and businesses to live, work, and invest in the community. The City benefits from a strong retail base, a robust labor market, and consistently rising property values.

At the national level, inflation remained a key economic consideration throughout 2024. In September, the Federal Reserve began reducing interest rates after inflation measures fell within the target range. The Bureau of Labor Statistics reported a 2.4% increase in the Consumer Price Index (CPI) for the 12-month period ending September 2024. These trends suggest that the U.S. economy has likely achieved a "soft landing," avoiding the sharp slowdown that appeared possible a year earlier.

Locally, Naperville continued to experience strong retail sales, solid property value growth, and low unemployment. In 2023, Naperville maintained its position as Illinois' largest sales tax generator outside of Chicago, reporting \$4.75 billion in retail sales. The City's Equalized Assessed Value (EAV) rose 6.2% to \$8.8 billion, reflecting continued residential and commercial development as well as appreciation in existing property. Despite higher interest rates creating challenges in the broader real estate market, development activity remains steady.

As of August 2024, Naperville's unemployment rate was 4.9%, lower than both the statewide rate of 5.5% and the Chicago metropolitan area's 5.7%. Economists forecast continued but moderating economic growth in 2025, with normalizing inflation and a gradual cooling in labor markets factored into the City's conservative revenue forecasts.



Naperville's long-standing commitment to sound financial principles—emphasizing liquidity, low property tax rates, and diversified revenue—has strengthened the City's fiscal stability. These efforts have resulted in increasing cash balances, a decreasing debt burden, and the reaffirmation of the City's AAA credit rating by both Moody's Investors Service and Standard & Poor's in 2018 and again in 2020.

During the onset of the global COVID-19 pandemic in early 2020, these financial practices proved vital. Anticipating potential fiscal challenges, the City Council and staff took proactive measures to mitigate the anticipated downturn. Actions included reducing capital expenditures, issuing and refinancing debt to preserve cash balances, and temporarily relaxing certain revenue restrictions to maintain essential services. Federal support through the CARES Act further bolstered the City's ability to maintain operations and prevent significant financial hardship.

By 2021, Naperville had recovered from pandemic-related fiscal pressures and emerged with an even stronger financial foundation. The City continues to monitor state and federal fiscal policies, monetary actions, and legislative changes that may impact local revenues and expenditures.

The City's economic resilience directly supports the Fire Department's ability to maintain effective emergency response, sustain adequate staffing levels, and invest in apparatus, facilities, and training. Stable revenue streams and disciplined financial management reduce the likelihood that short-term economic volatility will adversely impact core service delivery.

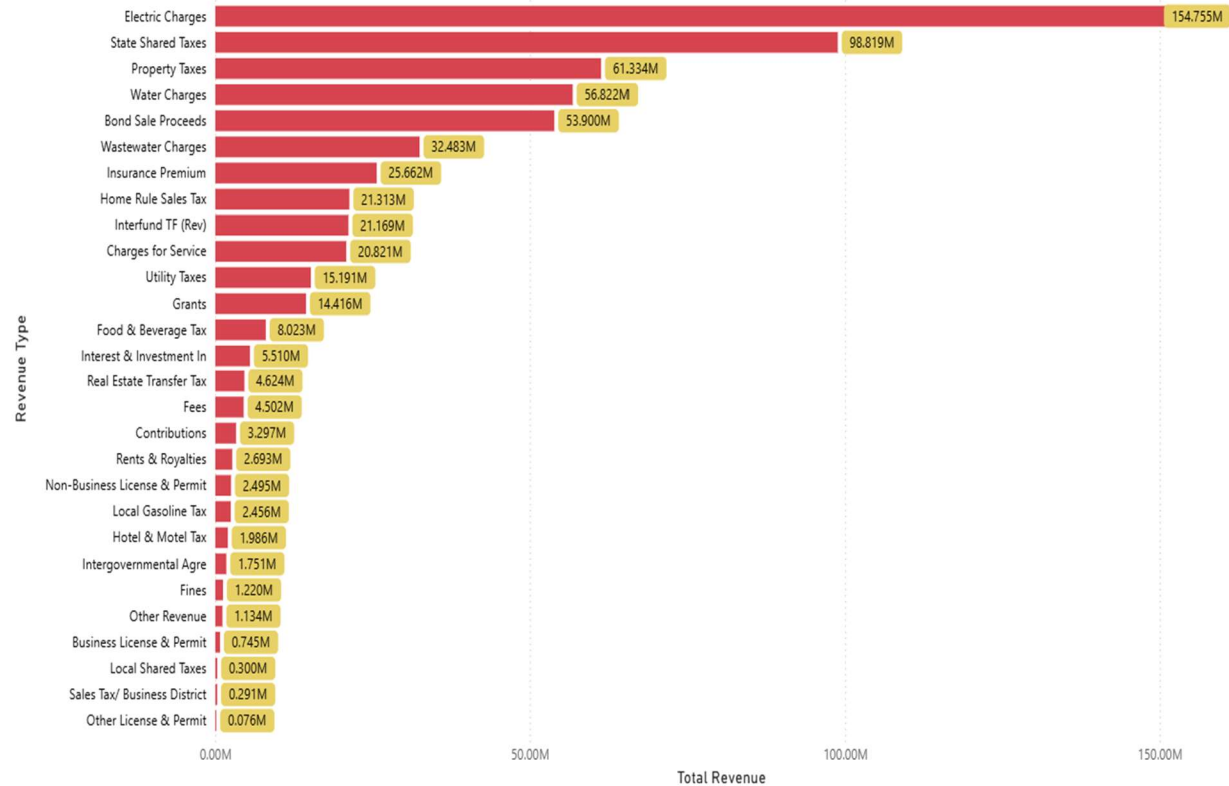
At the same time, ongoing community development and population growth create evolving risk factors that must be incorporated into the department's Standards of Cover analysis. Increases in assessed property values and commercial development contribute to an expanding service demand profile. Maintaining awareness of broader economic conditions allows the department to align resource allocation and capital planning with future community needs.

Naperville's continued economic strength and conservative fiscal policies have positioned the City to meet both current and future community needs. The combination of diversified revenues, prudent financial management, and a proactive approach to economic monitoring ensures long-term stability and adaptability.

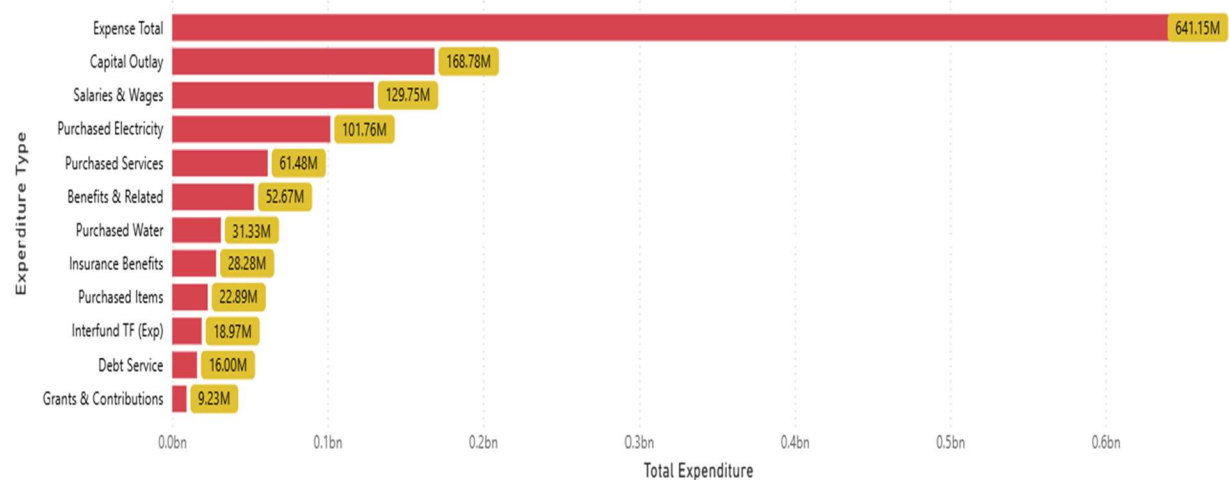


2025 DETAILED REVENUE AND EXPENDITURES

City of Naperville Revenue



City of Naperville Expenditures





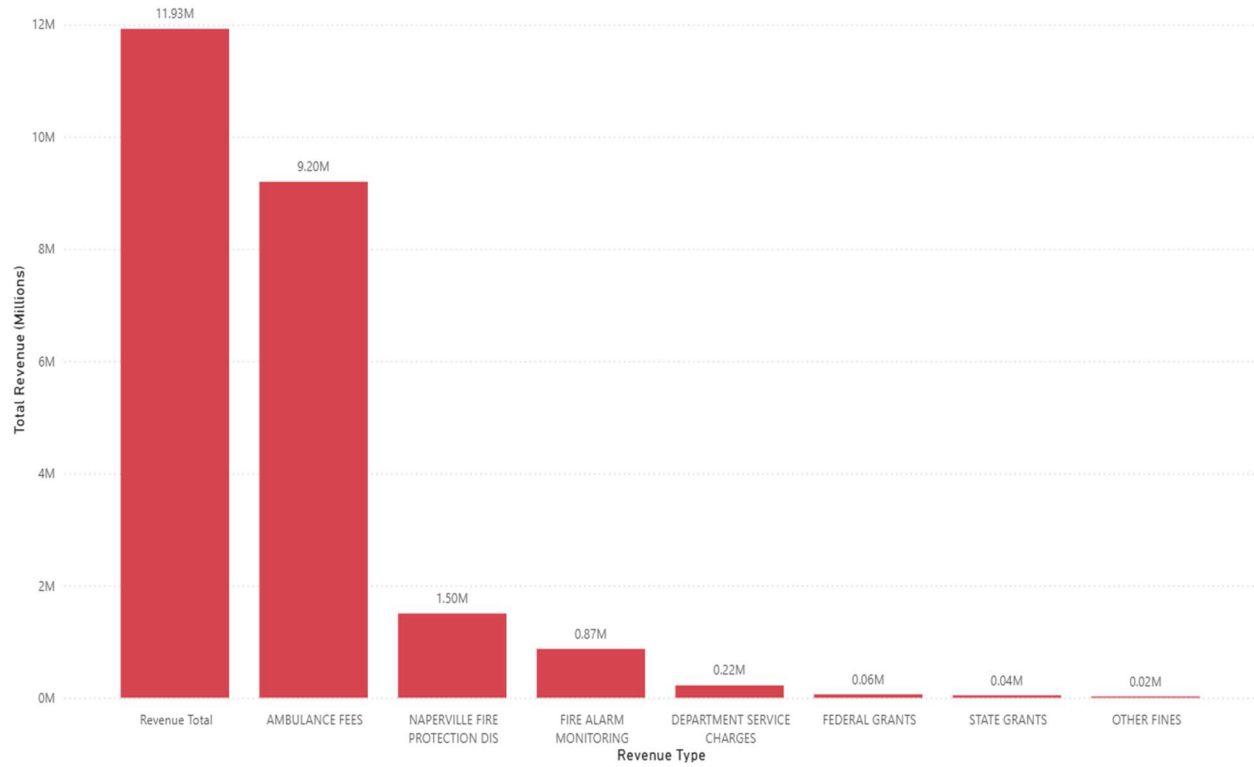
REVENUE AND EXPENDITURES ANNUAL SUMMARY

EXPENSES/ TRANSFERS OUT	2023 Actual	2024 Budget	2024 Estimate	2025 Budget	Change (\$)	Change (%)
Maintenance and Operating Funds						
Commuter Parking Fund	1,252,589	2,596,420	1,834,519	1,879,883	(716,537)	-27.6%
Electric Utility Fund	141,206,248	156,073,591	143,155,993	166,846,216	10,772,625	6.9%
General Fund	144,787,792	156,350,271	148,868,983	166,427,192	10,076,921	6.4%
Self Insurance Fund	27,285,343	35,765,597	35,943,592	29,166,227	(6,599,370)	-18.5%
Solid Waste Fund	7,571,785	7,777,250	7,714,524	8,079,305	302,055	3.9%
Water Utilities Fund	83,443,717	127,573,309	100,162,387	138,900,906	11,327,597	8.9%
Capital and Debt Service Funds						
Capital Projects Fund	17,355,134	64,156,820	30,538,706	60,969,770	(3,187,050)	-5.0%
Debt Service Fund	11,721,567	9,563,701	9,561,545	8,808,356	(755,345)	-7.9%
Downtown Parking Fund	1,061,424	801,578	496,833	461,764	(339,814)	-42.4%
Motor Fuel Tax Fund	7,825,610	10,601,539	12,625,225	7,000,000	(3,601,539)	-34.0%
Phosphorus Fund	640,546	6,562,000	6,562,000	2,863,000	(3,699,000)	-56.4%
Road And Bridge Fund	1,719,178	1,144,670	1,228,102	4,445,735	3,301,066	288.4%
SSA 23 - Naper Main	98,939	98,939	98,939	98,939	-	0.0%
SSA 25 - LaCrosse Signal	-	-	-	-	-	0.0%
SSA 30 - Downtown Streetscape	5,684	93,111	93,111	93,111	-	0.0%
SSA 31 - Downtown Streetscape	-	-	-	-	-	0.0%
SSA 34 - Downtown Streetscape	18,010	20,026	20,026	20,026	-	0.0%
SSA 35 - Downtown Streetscape	-	125,000	125,000	125,000	-	0.0%
Water Street TIF Fund	639,502	671,000	696,252	764,564	93,564	13.9%
Special Funds						
American Rescue Fund	13,308,689	-	-	-	-	0.0%
Block 59 Business District Fund	-	-	-	500,000	500,000	0.0%
Comm Dev Block Grant Fund	706,863	535,000	495,555	535,000	-	0.0%
E911 Surcharge Fund	3,083,625	3,075,000	3,075,000	4,272,122	1,197,122	38.9%
ETSB Fund	2,457,876	2,600,000	2,796,668	2,700,000	100,000	3.8%
Federal Drug Forfeiture Fund	157,775	500,000	225,000	650,000	150,000	30.0%
Food And Beverage Fund	6,096,672	6,640,143	6,293,888	6,931,250	291,107	4.4%
Foreign Fire Tax Fund	247,453	388,100	378,772	476,100	88,000	22.7%
Heinen Business District Fund	-	-	-	-	-	0.0%
Library Capital Fund	630,953	913,000	1,140,731	550,000	(363,000)	-39.8%
Library Fund	16,794,276	17,129,497	15,600,719	17,944,468	814,971	4.8%
Library Special Revenue Fund	1,405	42,054	3,552	24,500	(17,554)	-41.7%
Naper Settlement Fund	4,351,832	5,444,891	4,734,562	5,510,428	65,537	1.2%
Renewable Energy Fund	611,828	285,000	279,712	285,000	-	0.0%
SSA 33 - DT Maint & Marketing	2,452,728	3,473,662	2,360,909	3,580,497	106,835	3.1%
State Drug Forfeiture Fund	38,892	181,500	72,717	181,500	-	0.0%
Test Track Fund	48,125	59,880	42,309	57,740	(2,140)	-3.6%
TOTAL EXPENSES/TRANSFERS OUT	497,622,062	621,242,548	537,225,832	641,148,599	19,906,051	3.2%



DEPARTMENT REVENUE

2025 Department Revenue





FIRE DEPARTMENT PROGRAMS AND SERVICES

The Naperville Fire Department (NFD) provides comprehensive fire suppression, emergency medical response, community advocacy response, and specialized response services—including hazardous materials (hazmat), technical rescue, tactical EMS, unmanned aerial systems, and water rescue operations—to address both identified and potential community needs in alignment with the Commission on Fire Accreditation International (CFAI) standards. The department's Tactical Emergency Medical Services (TEMS) Team, Water Rescue Team (WRT), and Unmanned Aerial System (UAS) Team operate in close coordination with the Naperville Police Department to enhance public safety. The Operations Division is responsible for deploying the personnel necessary to deliver these services and is organized into three shifts of 62 personnel each, operating on a 24-hour on/48-hour off schedule, with shifts beginning and ending at 0700 hours. To ensure adequate service delivery, the department maintains a minimum daily staffing of six ambulances and one Community Advocacy Response Team (CART) unit, with the capacity to expand to eight ambulances.

In accordance with the Fire Department Manual (9.1.0) and the current labor agreement, minimum staffing levels for apparatus are established as follows: two Battalion Commanders; three personnel on Engine Companies (including at least one firefighter/paramedic); two paramedics on Medic (ambulance) units; three personnel on Squad Companies (with at least one firefighter/paramedic); and three personnel on Truck Companies (including at least one firefighter/paramedic). To promote equitable service distribution and timely response, the city is divided into ten still districts, each served by a primary fire station. Daily, the department operates six engine companies, two truck companies, two squad companies, six medic units, and two Battalion Commanders strategically located throughout Naperville.

All apparatus complies with relevant NFPA standards. Engine Companies meet NFPA 1901 and 1911 requirements, each equipped with a minimum 750-gallon water tank and 1,500 GPM pump. Squad Companies also comply with NFPA 1901 and 1911, both with a 750-gallon tank and a 1,500 GPM pump capacity. Truck Companies meet NFPA 1901, 1911, and 1914 standards



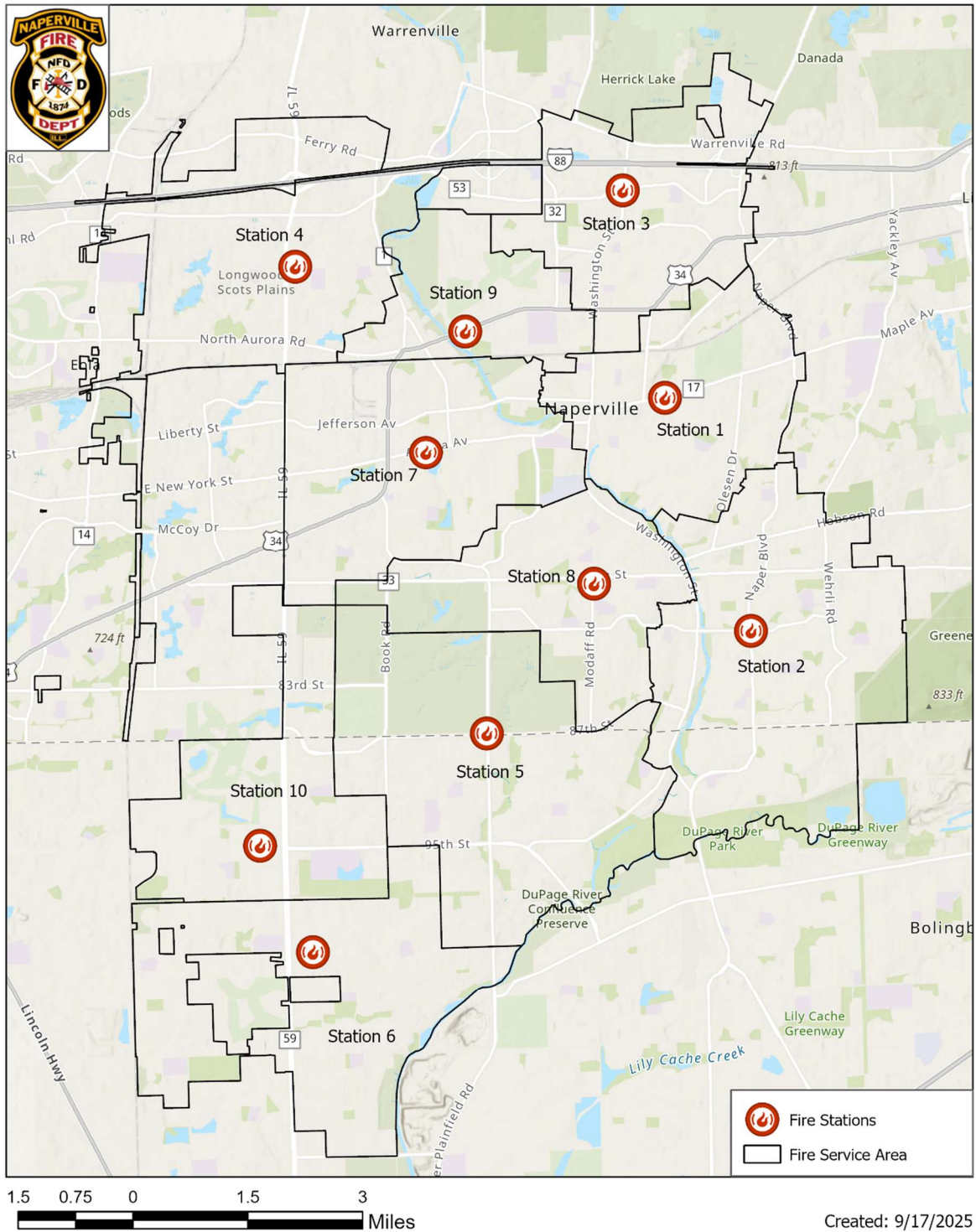
where applicable, each equipped with a 300-gallon tank and 1,500 GPM pump. Both Truck and Squad Companies carry hydraulic rescue tools and provide the department's vehicle extrication capabilities. Every fire suppression unit also operates with advanced life support (ALS) non-transport capabilities, while medic units serve as the primary ALS response and transport resources, compliant with Federal KKK-A-1822D standards and licensed annually by the Illinois Department of Public Health (IDPH). Equipment inventories on ambulances conform to the requirements of the local Edward Hospital EMS System (EHEMSS) and IDPH for ALS-level service.

The department maintains three specialized emergency response teams: the Hazardous Materials Response Team, the Technical Rescue Team, and the Water Rescue Team. Both the Hazmat and Technical Rescue Teams operate as regional response assets in collaboration with local mutual aid partners and are deployable statewide through the Mutual Aid Box Alarm System (MABAS). Special team activations include automatic dispatch through MABAS at the box alarm level. The Water Rescue Team has recently integrated with the Naperville Police Department to enhance efficiency and coordination in water rescue and recovery operations.

To further enhance response capability and resource efficiency, the Naperville Fire Department maintains Automatic Aid agreements with six neighboring jurisdictions: Lisle/Woodridge Fire Protection District (east), Warrenville Fire Protection District (north), Plainfield Fire Protection District (southwest), Oswego Fire Protection District (southwest), Bolingbrook Fire Department (southeast), and the Aurora Fire Department (west). These agreements facilitate multi-company responses and ensure rapid second or third due coverage in fringe areas where neighboring units can provide quicker service. Additionally, Naperville actively participates in MABAS Division 16, a regional network that includes Argonne National Laboratory, Bolingbrook, Darien Woodridge, Downers Grove, Fermilab, Lisle-Woodridge, Naperville, and Warrenville, providing mutual aid across jurisdictions when incident demands exceed local response capabilities.



Fire Service Areas





FIRE STATION DETAILS



Station 1 - 964 E. Chicago Av

Built in 1991. Station 1 serves the downtown Naperville area.

16,243 Population **6** Schools
2,950 Population 65+ **2** Nursing Homes
3.92 Square Miles



Station 2 - 601 E. Bailey Rd

Built in 1977. Station 2 has the largest service area of all the stations.

25,361 Population **6** Schools
4,868 Population 65+ **1** Nursing Homes
7.03 Square Miles



Station 3 - 1803 N. Washington St

Built in 1983. Station 3 often provides support to Warrenville.

9,129 Population **3** Schools
1,724 Population 65+ **3** Nursing Homes
4.22 Square Miles



Station 4 - 1971 Brookdale Rd

Built in 1986. Station 4 is home to the Naperville Fire Academy and the Hazardous Materials team.

17,136 Population **3** Schools
2,455 Population 65+ **4** Nursing Homes
5.54 Square Miles



Station 5 - 2191 Plainfield/Naperville Rd

Built in 1987. Station 5 covers the Springbrook Prairie Forest Preserve.

17,285 Population **4** Schools
2,440 Population 65+ **0** Nursing Homes
7.00 Square Miles

**Station 6 - 2808 103rd St**

Built in 1993. Station 6 is furthest south and serves the 2nd largest residential population.

19,764 Population **7** Schools
1,913 Population 65+ **0** Nursing Homes
5.55 Square Miles

**Station 7 - 1380 Aurora Av**

Built in 1992. Station 7 is attached to the Fire Administration building.

15,996 Population **4** Schools
2,425 Population 65+ **3** Nursing Homes
5.61 Square Miles

**Station 8 - 1320 Modaff Rd**

Built in 2001. Station 8 was designed to resemble a home to fit in with the surrounding neighborhood.

12,805 Population **5** Schools
2,330 Population 65+ **0** Nursing Homes
3.89 Square Miles

**Station 9 - 1144 W Ogden Av**

Built in 2006. Station 9 houses the Technical Rescue Team and a specialized Squad company.

9,3151 Population **2** Schools
1,754 Population 65+ **5** Nursing Homes
2.43 Square Miles

**Station 10 - 3201 95th St**

Built in 2010. Station 10 is the newest station and incorporates green building principles.

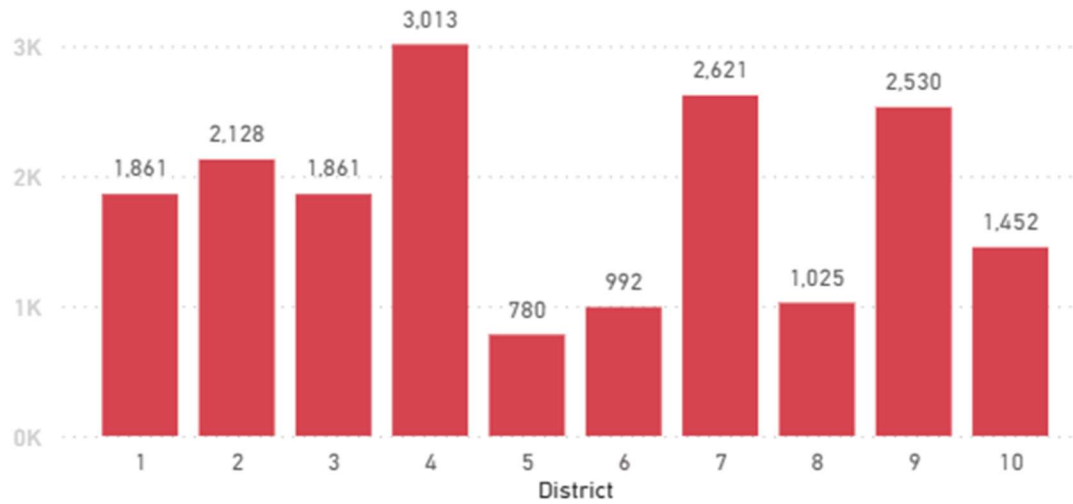
14,820 Population **3** Schools
2,522 Population 65+ **2** Nursing Homes
4.32 Square Miles



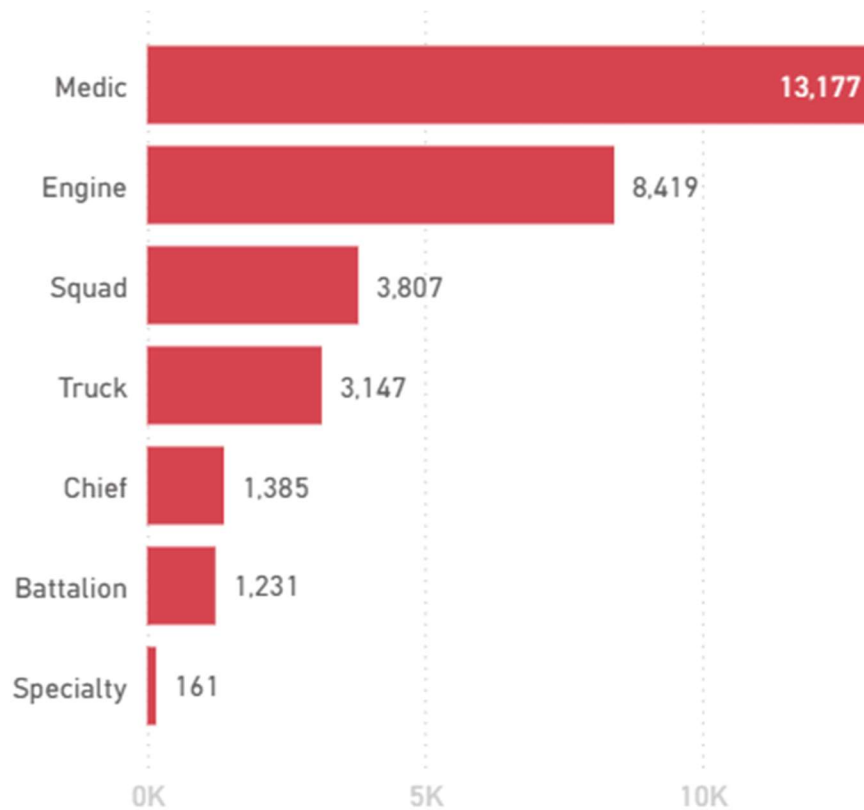


2025 INCIDENT DATA

Incidents by Still District



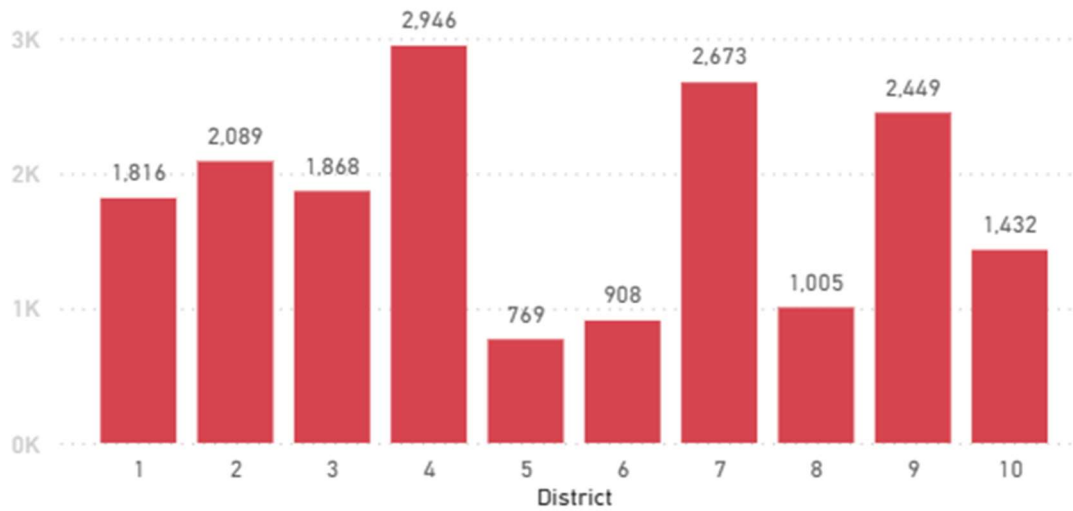
Response by Unit Type



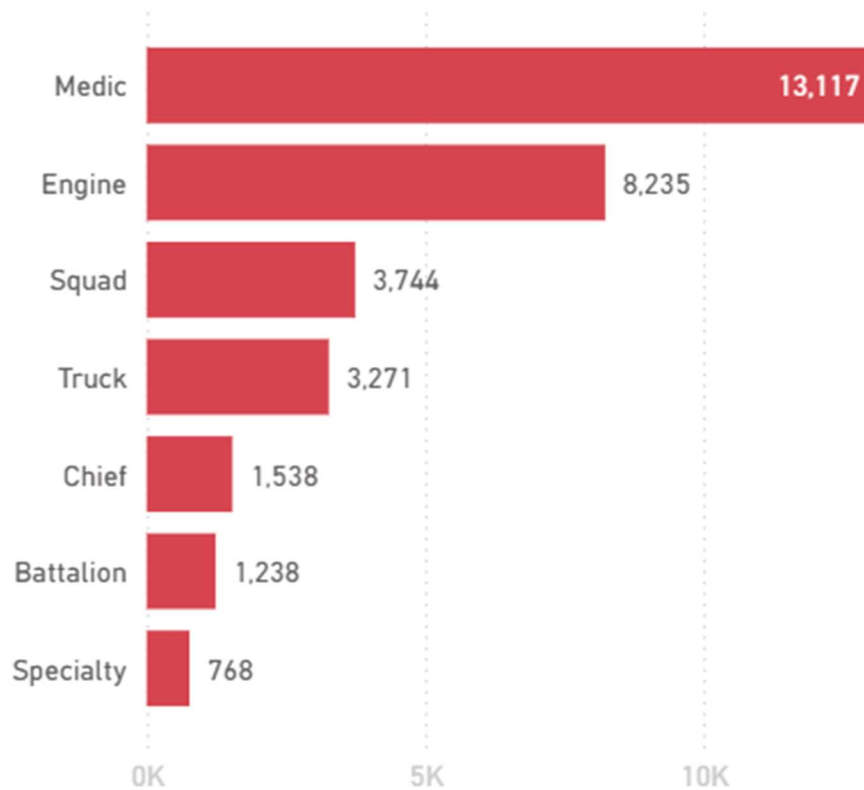


2024 INCIDENT DATA

Incidents by Still District



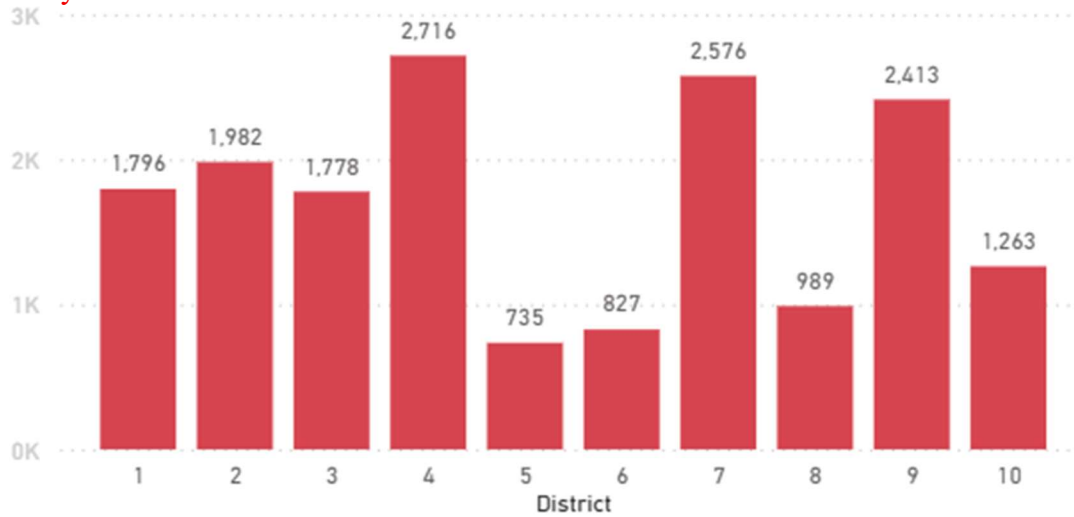
Response by Unit Type



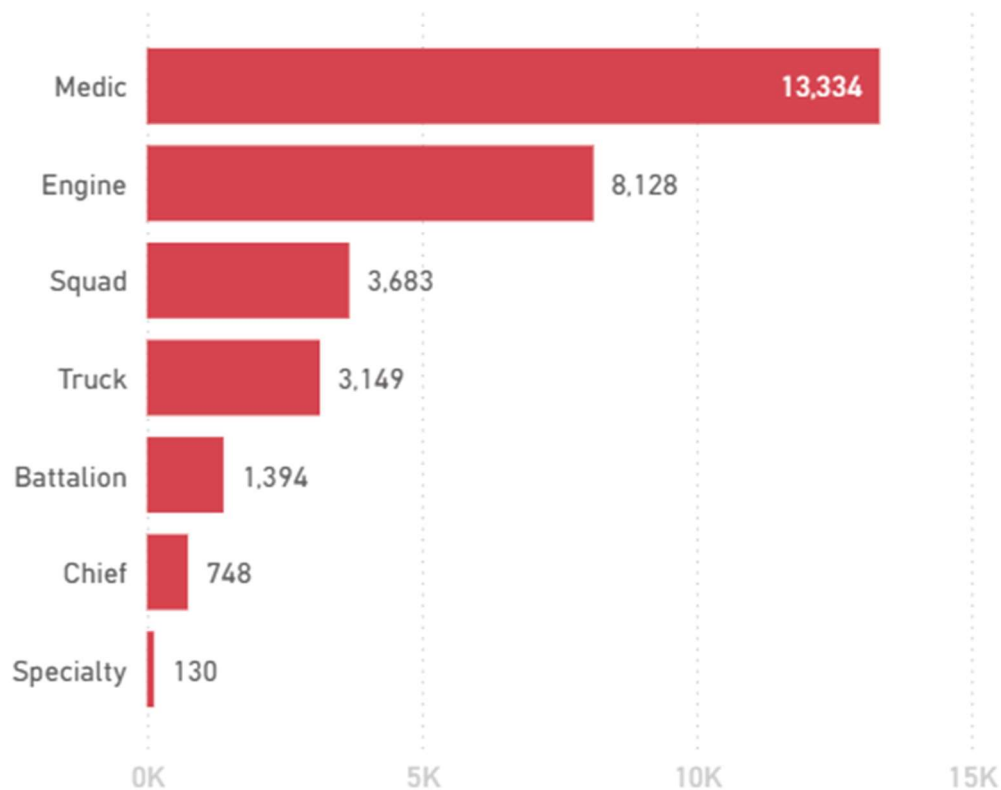


2023 INCIDENT DATA

Incidents by Still District



Response by Unit Type



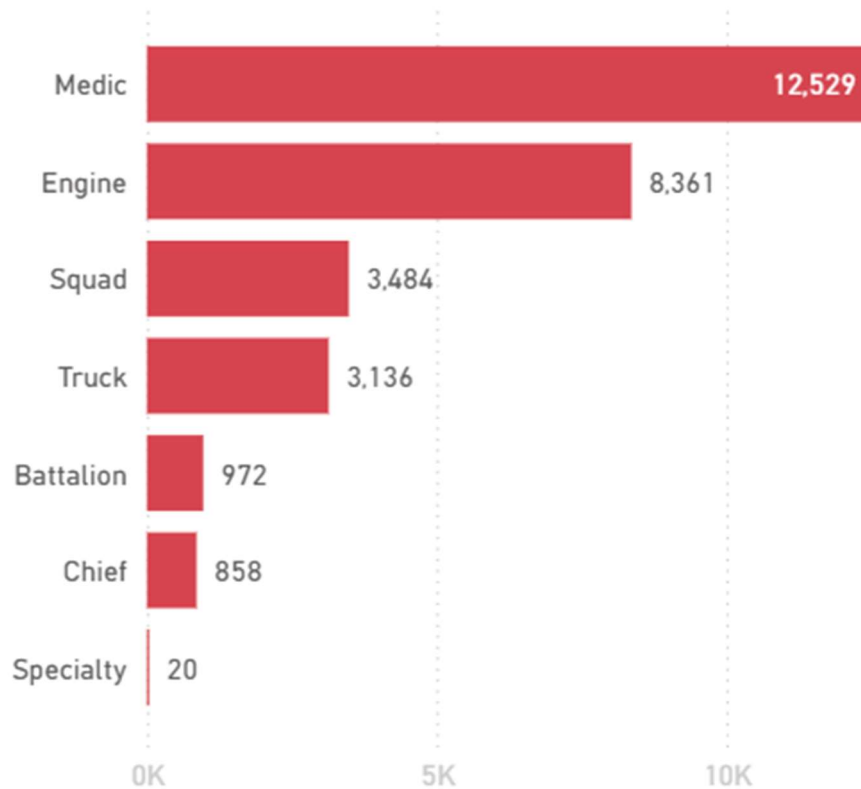


2022 INCIDENT DATA

Incidents by Still District



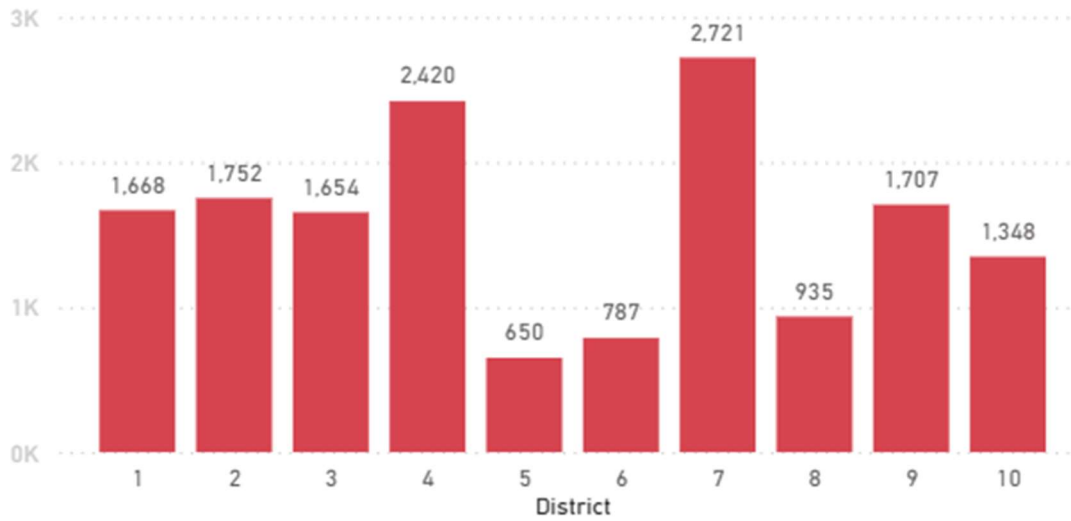
Response by Unit Type



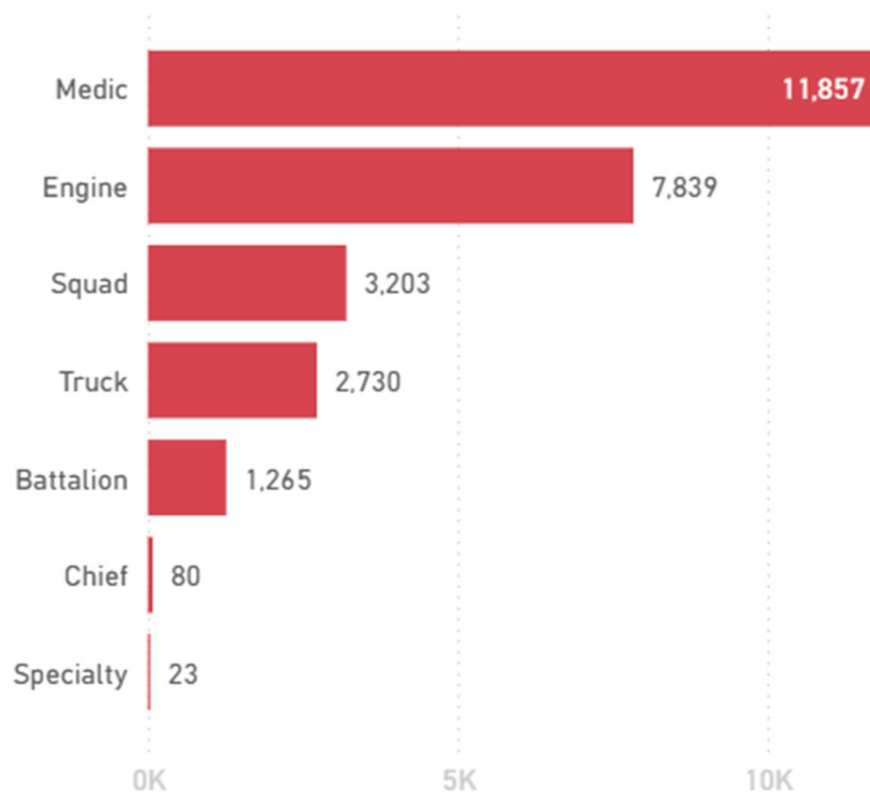


2021 INCIDENT DATA

Incidents by Still District



Response by Unit Type





2021-2025 INCIDENT LINEAR REGRESSION

Building off the correlation matrix previously mentioned, the Naperville Fire Department looked more granular at the census data. The goal was to be more predictive regarding responses as the community continues to evolve. The Naperville Fire Department compiled incident data and joined it with census data. The department then performed a linear regression model examining how various demographic and socioeconomic factors relate to the outcome of incident volume. The model explains approximately 41% of the variation in the dependent variable ($R^2 = 0.41$). The overall model is statistically significant at the 0.9% level ($p = 0.0098$).

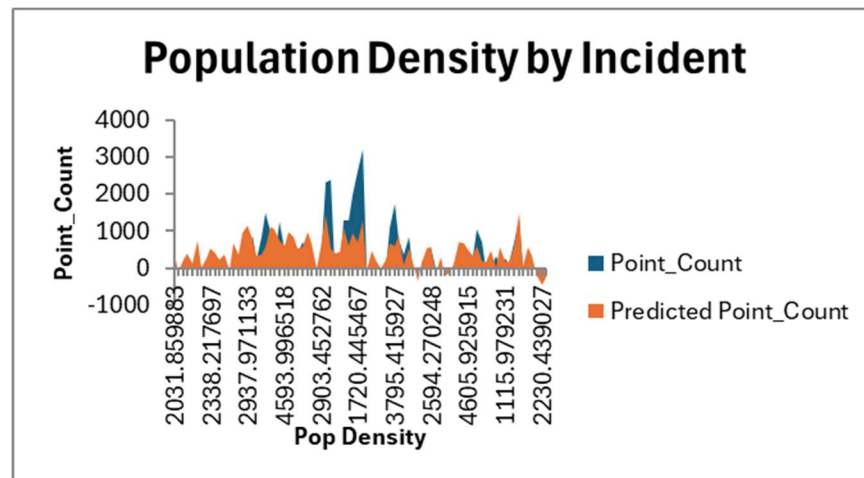
The average of the observations was used in the regression to ensure the department found a representative measure of each group's central tendency regarding incident count. This was particularly important given that the department was comparing groups with different numbers of members.

Population Density emerges as a significant positive predictor ($p = 0.04697$), indicating that incident counts increase as population density rises. Uninsured also shows a negative correlation relationship with Incident Count ($p = 0.03919$). This suggests lower incident counts in areas with higher uninsured rates when other factors are held constant. All other demographic and socioeconomic variables, including unemployment, housing burden, age structure, and racial and ethnic composition, are not statistically significant predictors at the 0.05 level. Overall, the results indicate that Incident Count is primarily influenced by measures of population concentration and housing characteristics rather than most individual socioeconomic or demographic factors.

The purpose of doing both a correlation and a regression is to ensure the variables that appear important in correlation remain significant in regression. The Department will complete the analysis annually to ensure the predictive nature of the model is accurate.



Statistically Significant Fine Line Plots



Regression

The P-value represents the statistical significance of the variable. If the variable's P-value is less than 0.05 there is a 95% probability that an increase will be seen between the lower and upper 95% for every increase of a value of 1 to the variable.

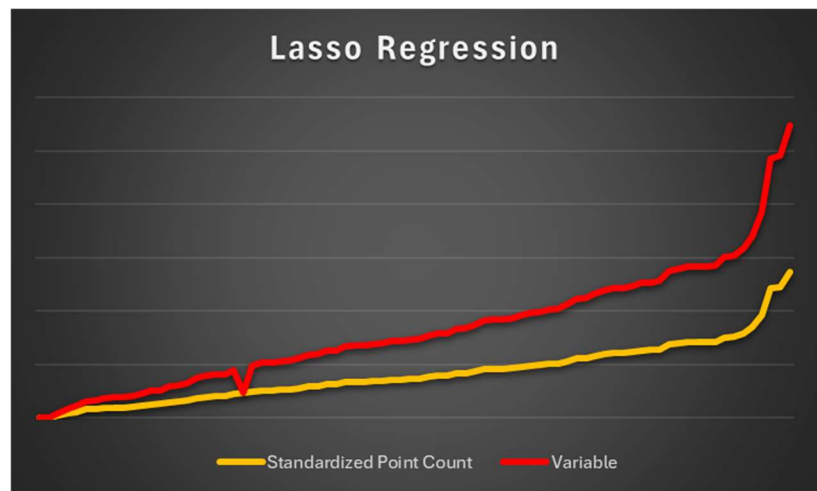
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-444.931169	314.8519392	-1.413144128	0.162174569	-1073.208432	183.3460937	-1073.208432	183.3460937
Pop Density	0.079638371	0.039361343	2.023263532	0.046979231	0.001094033	0.158182709	0.001094033	0.158182709
E_SNGPNT	2.002171771	1.463859448	1.367734979	0.175898428	-0.918914277	4.923257818	-0.918914277	4.923257818
E_AGE65	0.312195064	0.373219219	0.836492463	0.405807905	-0.432552293	1.05694242	-0.432552293	1.05694242
E_AGE17	-0.220534557	0.298152415	-0.739670535	0.462045909	-0.815488438	0.374419325	-0.815488438	0.374419325
E_DISABL	0.546108182	0.543536851	1.004730739	0.318588493	-0.538502718	1.630719082	-0.538502718	1.630719082
E_ASIAN	0.189497254	0.170132943	1.113818699	0.269278536	-0.149997749	0.528992257	-0.149997749	0.528992257
E_HISP	0.307525916	0.287530345	1.069542475	0.288607206	-0.266231953	0.881283786	-0.266231953	0.881283786
E_AFAM	-0.471610857	0.33565002	-1.405067267	0.164553322	-1.141390044	0.19816833	-1.141390044	0.19816833
E_UNEMP	0.077310508	1.166943773	0.066250414	0.947372859	-2.251289536	2.405910551	-2.251289536	2.405910551
E_NOHSDP	-0.899416918	0.856655946	-1.049916157	0.297473787	-2.608847243	0.810013407	-2.608847243	0.810013407
E_HU	0.26309099	0.343349845	0.766247586	0.446180864	-0.422052959	0.948234938	-0.422052959	0.948234938
E_HBURD	0.320244652	0.714868393	0.447977076	0.655593773	-1.106253016	1.746742321	-1.106253016	1.746742321
E_UNINSUR	-1.445310571	0.687367295	-2.102675791	0.039198555	-2.816930652	-0.073690489	-2.816930652	-0.073690489



2021-2025 INCIDENT LASSO REGRESSION

To the Naperville Fire Department, understanding how socio-economic factors affect incident counts is critical. The analysis of population data is especially difficult given the number of variables. Standard linear regression predicts incident counts as a weighted sum of variables, such as population density and demographic characteristics. It minimizes the difference between predicted and actual values. Because many of these socio-economic variables are often correlated, using standard linear regression may produce an unstable model that can overfit the current data. Using a linear regression in correlation with the correlation matrix left the Naperville Fire Department with a series of possibilities, not probabilities. In order to turn the possibilities into probabilities, the Naperville Fire Department utilized a Lasso (Least Absolute Shrinkage and Selection Operator) regression to solidify the findings from the previous analysis.

The Lasso regression addressed the potentially unstable model by adding a penalty based on the absolute size of the coefficients. This reduces the influence of less important or redundant variables, often reducing some coefficients to zero. This effectively performs variable selection while



maintaining predictive accuracy. The stacked line graph shows a mirrored tight line from the bottom-left to the top-right. This indicates the Lasso model is highly accurate. The result showed a zero coefficient for the Asian population, indicating it is not helpful enough to keep in the model. Population density returned a coefficient of 2.778, meaning it is a reliable indicator of incident count. By using a Lasso regression, Naperville FD can develop more reliable forecasts of incident counts, ensuring better resource allocation and strategic planning in response to socio-economic trends.



2025-2027 ANTICIPATED DEVELOPMENT

The City of Naperville is projecting to see continued growth through 2026. Development trends point to continued and measurable growth within the City and Fire Protection District. As of January 2026, there are a total of 3,501 dwelling units in stages of approval, construction, or under review. Of these, 763 units have been approved, including 76 units in mixed-use residential and school projects, 306 units in mixed-use retail/restaurant and residential developments, and 381 strictly residential units.

Another 1,812 dwelling units remain in the under review phase, driven primarily by residential development with 1,312 units, along with 90 units in mixed-use residential and retail projects and 410 units in mixed-use residential/hotel, retail, and medical office developments.



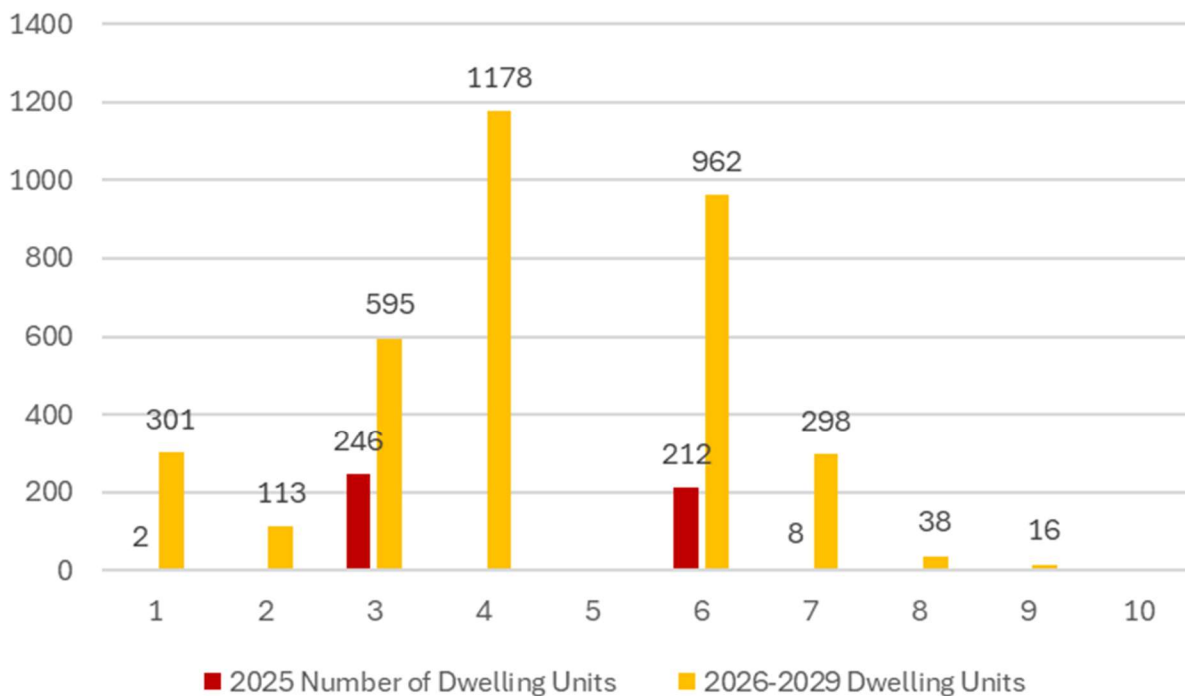
Finally, 926 dwelling units are currently under construction, all within residential projects. This volume of approved, pending, and active development represents a significant expansion for the City of Naperville. The projected expansion of the City of Naperville is anticipated to increase population density, traffic, and demand for emergency services. These conditions underscore the importance of incorporating projected growth into long-range public safety and risk assessment planning.



Population Density by Year



New Residential Development Units by Still District





SPECIAL EVENT RESPONSE PLAN

The City of Naperville hosts numerous special events each year, ranging from small parades and races to large, multi-day festivals and athletic competitions. Due to the scale and complexity of many of these events, the department works closely with multiple city departments to ensure thorough planning and evaluation. The City's Special Events Committee meets regularly with event organizers to review plans and provide updates to the Mayor and City Council.

For the 2026 Special Events season, there are 36 events scheduled, several of which are classified as large-scale. These include the St. Patrick's Day 5K and Parade (March), Naperville Women's Half Marathon (April), Memorial Day Parade (May), Naperville Sprint Triathlon (August), India Day Parade and Celebration (August), Last Fling (September), Naperville Half Marathon and 5K (October), and the Turkey Trot (November).

Events are assessed by area, complexity, and expected attendance to determine appropriate staffing and resources. To provide consistent and realistic coverage, the department revised the standardized assessment template for special events. The department maintains a proactive yet balanced approach to event safety and response.

Special events remain a key area of focus and serve as valuable opportunities to practice developing Incident Action Plans, applying Unified Command principles, and coordinating with partner agencies and resources.

Criteria

Population - static attendance/crowd size

Event footprint

Dynamic event (half-marathon)

Event Tier Detail



Tier 0 Event

- No staff on site, call 911

Tier 1 Event

- One ambulance or one EMS golf cart
- 1,000-5,000 attendance at the event's peak

Tier 2 Event

- One ambulance, one golf cart, or bike team
- 5,000- 10,000 attendees at the event's peak

Tier 3 Event

- One ambulance and one bike medic team, or 2 golf carts
- Unified Command
- Over 10,000 attendees at the event's peak, or a large area of coverage

Tier 4 Event

- One ambulance, one bike medic team, and 2 golf carts
- Unified command, notification to the State of Illinois and/or Red Cross
- Over 50,000 attendees at the event's peak, or a high-profile event



SPECIALTY TEAMS AND OTHER SUPPLEMENTARY PROGRAMS

Tactical Emergency Medical Support

Water Rescue

Technical Rescue

Unmanned Aerial Systems

Fire Investigation Team

Youth Fire Setters

Public Education

Community Risk Reduction

Life Safety Inspections

Community Advocate Response Team

Hazardous Materials Team

Household Hazardous Waste Collection

CPR / Stop the Bleed Program

Fire Department Health and Wellness

Naperville Fire Academy

Fire Accreditation

Candidate Physical Ability Test Site

Fire Alarm Monitoring



CITY OF NAPERVILLE ALL-HAZARD RISK ASSESSMENT

The Naperville Fire Department continuously evaluates city-wide risks to provide effective fire and emergency services. These assessments guide the distribution and concentration of fire and EMS resources across 10 fire still districts, based on historical demand. Risks in the community generally fall into five categories:

- Service demand and call history
- Fixed property use
- Transportation systems
- Natural hazards
- Community conditions

The department uses multiple methods to identify and analyze risk, including hazard assessments, population density, call history, target hazard mapping, and the Fire Marshal's building scoring program. This comprehensive awareness ensures the department deploys resources and strategies appropriate to the nature and level of risk. Administrative members also receive updates from the statewide Terrorism and Intelligence Center, which are disseminated throughout the department and MABAS partners.

The Comprehensive Risk Analysis (CRA) document, updated every five years or as hazards change (most recently in February 2026), evaluates the probability of natural, technological, and security risks. The CRA is compared to the Threat Hazard Identification and Risk Analysis (THIRA) performed by the Naperville Emergency Management Agency to ensure the departments are coordinated. Buildings are assessed through the Fire Marshal's Building Risk Assessment, which considers construction type, fire protection systems, water supply, and other factors to guide response strategies.

For the 2026 CRA, individual risk types are scored across three axes: Threat Probability, Consequences to the Community, and Impact on the Department. Each axis is categorized in up

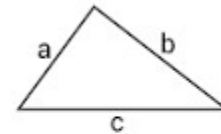


to three sub-categories and assigned a score from 1 to 10 (1-3 low risk, 3-6 moderate risk, 6-10 high risk).

- Threat Probability: Frequency of incident type, higher frequency equals higher risk.
- Consequences to the Community: Total deaths/injuries, property loss, and business impact.
- Impact on the Department: Preplanned and trained, internal response, and external response.

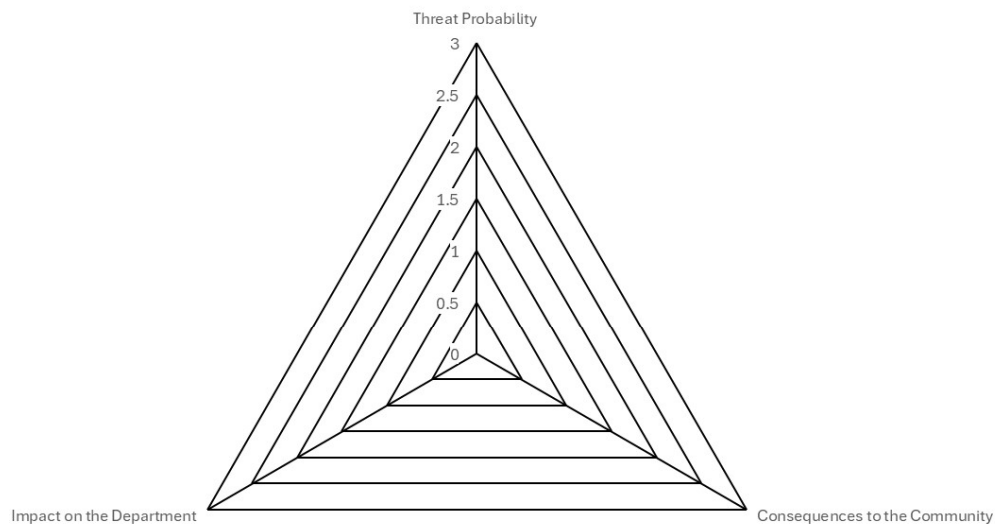
The final risk score is calculated using Heron's Formula, which calculates the area of the triangle formed by the data inputs of Threat Probability, Consequences to the Community, and Impact on the Department. The Naperville Fire Department used these scores to determine the overall risk level for each risk type. The dataset for this analysis is in the appendix. Data was collected from the First Due RMS and the City of Naperville's THIRA.

Heron's Formula



$$s = \frac{a+b+c}{2}$$

$$A = \sqrt{s(s-a)(s-b)(s-c)}$$





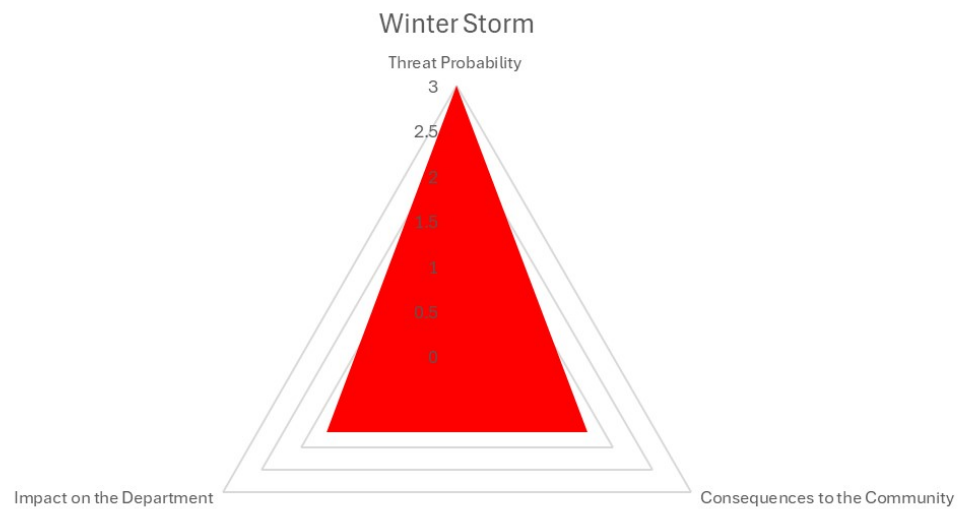
Winter Storm (High Risk)

The "Groundhog Day Blizzard" of 2011 is largely considered the area's third-largest winter storm. The storm dumped over 20 inches of snow on the region. In January of 2024, a significant winter storm brought a burst of heavy snow and gusty winds to Naperville. Total snowfall was anticipated to be over 9 inches. This storm caused hazardous travel conditions with areas of blowing snow. Following the snowfall, a multi-day period of bitterly cold temperatures and wind chills affected the Naperville area. Wind chills reached 40 degrees below zero at their coldest point.

Naperville's enhanced ability to predict an impending winter storm offers valuable time to prepare for emergency response, snow removal, and other response tasks. In 2022, the City of Naperville purchased a 4-wheel drive Lenco Bear Medcat. The vehicle is designed to be used for incident response during severe weather, including a winter storm. During a winter storm, "snow command" is established to unify DPW snow removal crews with emergency response personnel. A winter storm will cause significant disruptions and closures of major roadways due to impassable conditions, potentially leading to stranded motorists in need of rescue. The road closures will also hinder emergency response efforts and citizens' ability to provide for their essential needs. There is a potential for widespread power outages due to ice and snow accumulation on high-tension lines. Although over 94% of Naperville's electrical grid is underground, the supply remains above ground and susceptible to severe weather. There will be an increased risk of injuries and fatalities due to hypothermia, accidents related to poor driving conditions, and victims with chronic illnesses being unable to attain their regular care. Educational facilities and businesses will likely temporarily close, impacting public health, food access, and economic activity. There is a potential for damage to private residences and commercial occupancies from snow buildup and frozen water lines. Current plans are in the process of being updated.



Winter Storm (High Risk)

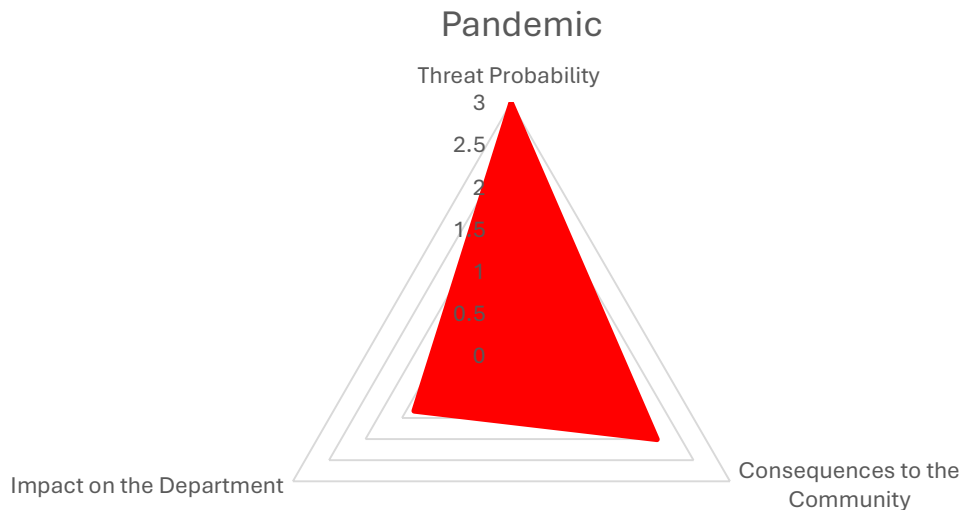




Pandemic (High Risk)

COVID-19, identified in 2020, had a death toll for DuPage County at 1,805 or 0.2% of the population (as of 07/23/2023). Infection rates were 233,636 people, or 24% of the population. No finite data was found depicting the City of Naperville alone.

Similar to Epidemics, the City of Naperville will rely heavily on messaging and public health measures like social distancing, quarantine, contact tracing, and vaccination campaigns. In addition, the City will focus on public messaging to modify behaviors like smoking or diet in an effort to prevent or mitigate the mortality of the epidemic before it occurs. A pandemic poses unique dangers with the involvement of the media and politics. In addition, the interruption of school and the economy from widespread shutdowns, Naperville will have to mitigate public opinion. As we saw with the onslaught following the COVID-19 pandemic, civil unrest can lead to property damage and looting. Following the events that occurred in 2020, Naperville has put operational plans in place and trained on the plans extensively. Naperville has learned from the mistakes of the past and is better prepared for the next pandemic.

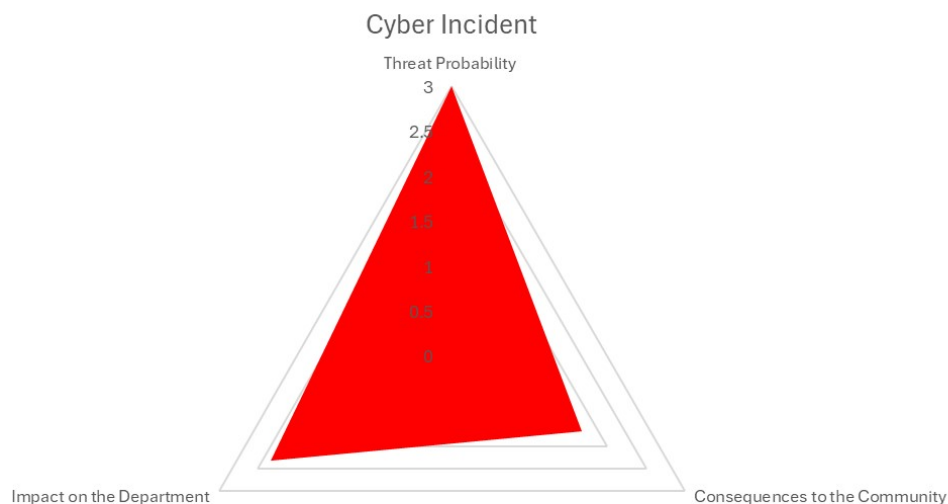




Cyber Incidents (High Risk)

On July 19th, 2024, a Microsoft outage caused chaos for Naperville residents, companies, and government agencies. Most of the world experienced major software issues. The outage impacted everything from air travel and healthcare to banking.

A large-scale cyber incident will cause significant disruptions to city services, impacting commercial and residential occupancies. Communications will be the area of greatest concern, causing delays in emergency reporting and response. There is a potential for widespread power outages due to interruptions to the Naperville Electric Department's power distribution system. Depending on the time of year, there is a potential for injuries and fatalities due to hypo/hyperthermia, accidents related to loss of traffic signals, and delays in emergency response. Educational facilities and businesses will likely temporarily close, impacting public health, food access, and economic activity. There is a potential for damage to private residences and commercial occupancies from looting and civil unrest. Current plans are in the process of being updated.

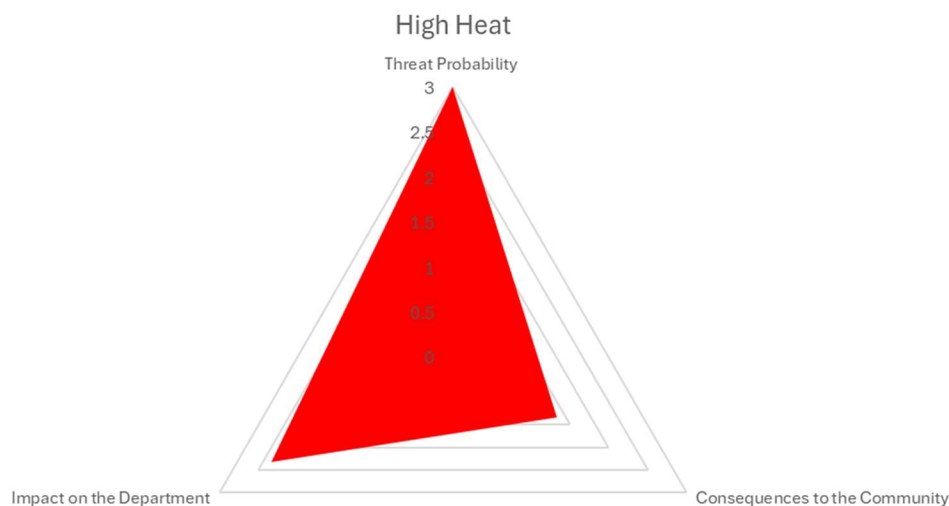




High Heat (High Risk)

The summer months in the Midwest and in Naperville specifically average above 80 degrees Fahrenheit. This often increases the risk of heat-related emergencies and complicates structural firefighting efforts. During these periods, regular personnel rotation is essential to maintain safety and effectiveness. The month of July is the warmest month overall; however, excessive heat has occurred as late as September in the recent past.

The high heat can potentially cause significant traffic problems by affecting drivers (drowsiness, impatience, reduced concentration), damaging roads (buckling, potholes), and stressing vehicles (tire/engine failure). All of this leads to an increase in accidents, delays, and congestion. Heat waves increase the risk of road rage and mechanical failures, while blinding glare and pavement issues create dangerous driving conditions, worsening overall traffic flow and safety. There is a potential for stranded motorists due to disabled vehicles. Road closures due to buckling will also hinder emergency response efforts and citizens' ability to provide for their essential needs. The high heat can cause power outages by skyrocketing electricity demand, thus straining the electrical grid, making equipment less efficient, causing overhead lines to sag and fail, and overheating underground transformers. This could lead to blackouts or brownouts as the system is overloaded. There will be an increased risk of injuries and fatalities due to excessive heat, loss of electrical power, and accidents related to poor driving conditions. Victims with chronic illnesses may be hindered from attaining their regular care. Educational facilities and businesses will likely temporarily close due to power failure or act as areas of refuge for those without a cool place to stay. Cooling center locations are published by the county Emergency Management Agency.

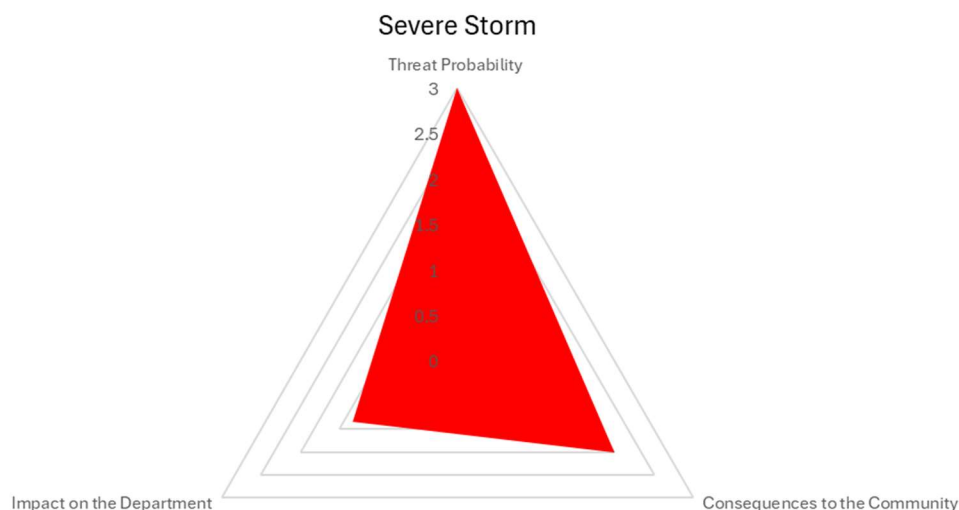




Severe Storm (High Risk)

According to the National Weather Service, the City of Naperville has experienced four significant severe thunderstorm events in 2024. On February 27th, Naperville experienced severe weather, including high winds and hail. Between July 13-16, a series of severe weather outbreaks, including two significant derechos and multiple tornadoes, affected the Midwest, including northern Illinois. Naperville recorded rainfall exceeding 2 inches and winds in excess of 58mph.

Severe thunderstorms can cause significant disruptions and closures of major roadways due to impassable conditions, i.e.; tree limbs, leading to the stranding of motorists and hindering emergency response efforts. 94% of the City of Naperville's electric utility lines are below ground, meaning widespread power outages due to downed power lines are not likely. There is an increased risk of injuries and fatalities due to accidents related to poor driving conditions, extended response times for public safety, and flying debris. There is also a potential risk of damage to roofs, property, and critical infrastructure from high winds and lightning. Plans have been updated to respond to the severe weather threat; however, more training is needed for senior officials within the government.

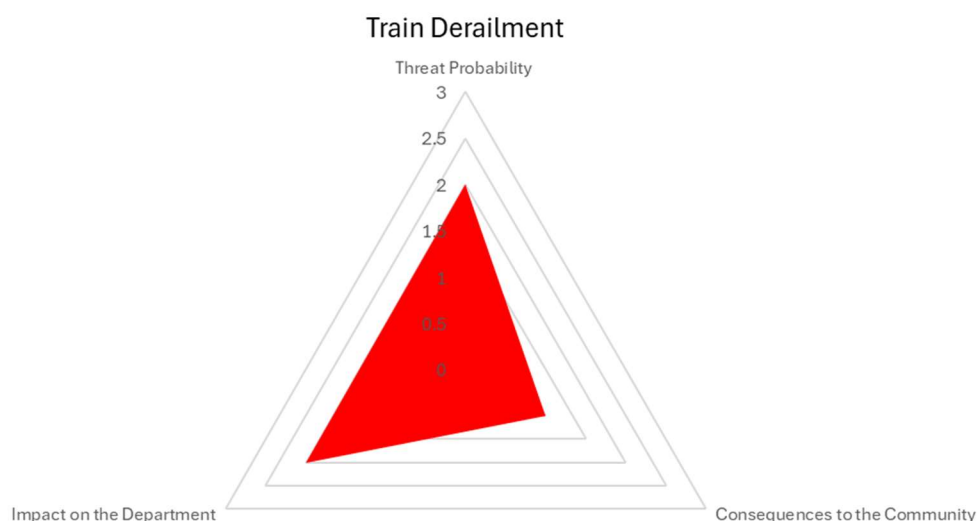




Train Derailment (Moderate Risk)

Aurora and Naperville share two rail lines: the Burlington Northern/Santa Fe (BNSF) and the Canadian National (CN). These rail lines are used to transport freight, local commuters via Metra, and national transportation via Amtrak. There have been multiple small incidents on the rail lines over the past decade. Most notably, on January 16th, 2016, an Amtrak train collided with a BNSF welding truck; there were no reported injuries. Also, on February 6th, 2016, a METRA train car derailed on the BNSF line in Naperville again; there were no reported injuries. Finally, on August 1st, 2025, a freight train derailed near Rte. 59 on the BNSF line. The incident was handled by the Aurora Fire Department.

Beyond the mental toll a train derailment takes on the community, there are widespread threats to everything from transportation to public health. Naperville citizens rely heavily on rail to commute to the city of Chicago for work and recreation. A derailment would cause disruptions, leading to the stranding of commuters. Beyond the obvious risk of injuries and fatalities due to direct involvement with the derailment, public safety responses would be greatly affected. A derailment of the BNSF line would essentially cut the city of Naperville in half. The plans that are in place to mitigate such a disaster are outdated and need to be thoroughly updated. In addition, the city leaders and community partners need to be adequately trained in the new plans.



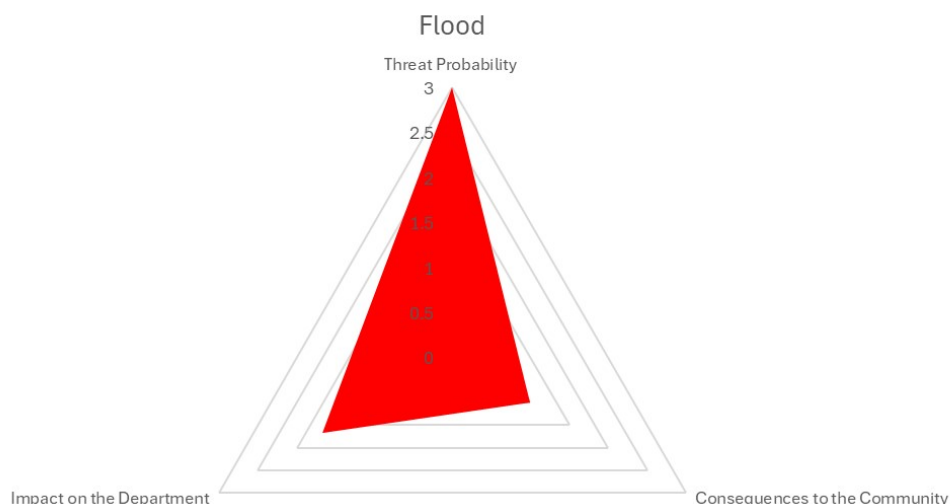


Flood (Moderate Risk)

In 1996, the City of Naperville experienced widespread flooding in the area after receiving 18" of rain in 24 hours. The flooding largely impacted the downtown business district and over 7,500 homes. Less than 10 years later, in 2013, Naperville once again had widespread flooding, halting business, shutting down roadways, and damaging private property. Flash flooding continues to plague the area annually.

The City of Naperville maintains a robust Department of Public Works (DPW), Water Department, and Transportation Engineering and Development (TED) Department. These organizations coordinate with Public Safety to plan, respond, and mitigate the flood emergency. Both widespread and flash flooding will cause significant disruptions and closures of major roadways due to impassable conditions, potentially leading to stranded motorists in need of rescue. The road closures will also hinder emergency response efforts.

There is a potential for widespread power outages due to flooded electrical vaults, as over 94% of Naperville's electrical grid is underground. There will be an increased risk of injuries and fatalities due to hypothermia, accidents related to poor driving conditions, and long-term illness from unsanitary water conditions. Educational facilities and businesses will likely temporarily close, impacting public health, food access, and economic activity. There is a potential for water damage to private residences and commercial occupancies.

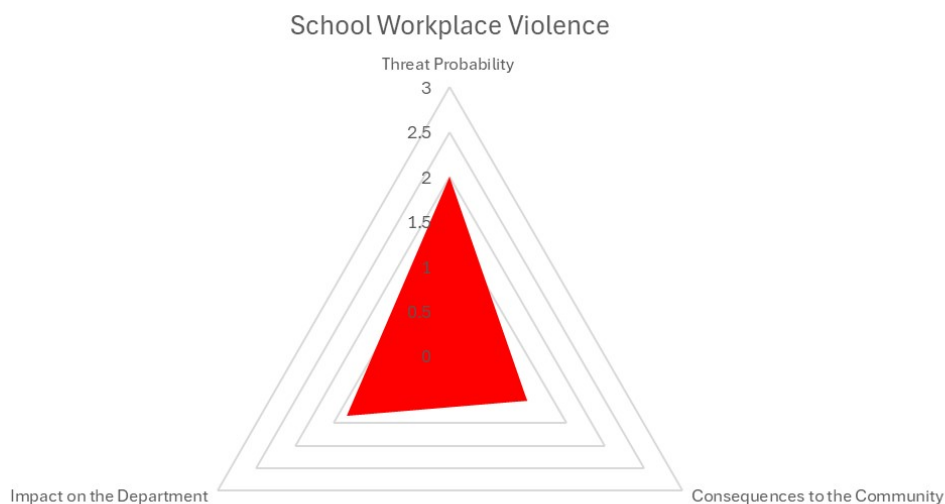




School/Workplace Violence (Moderate Risk)

Naperville, Illinois, is a diverse community with a population of over 150,000 people. Naperville has a crime index of 47, meaning it is safer than 47% of US cities. Naperville had a report of 0.69 violent crimes per 1,000 residents in 2024. The state of Illinois has an average of 3.1 violent crimes per 1,000 residents. Naperville has forty-five public schools spread across two school districts, thirty-two private schools, and robust commercial occupancies throughout the city. To date, workplace and school violence has been limited; however, the department would be remiss to think Naperville is immune.

In 2015, the Naperville Fire Department, in coordination with the Naperville Police Department, established the Tactical Paramedic program. In addition, all line personnel were trained in Rescue Task Force techniques to prepare for a potential incident of mass violence. Given the profile and reputation of Naperville, it has also become a target for civil disturbance and other violent acts. In the event of violent acts being perpetrated at a workplace or school within Naperville, the risk would be limited to the lives around the incident. Long-term care would have to be provided for the mental health of responders, victims, and the citizenry. The city of Naperville and Public Safety have been specifically trained on the plans extensively.





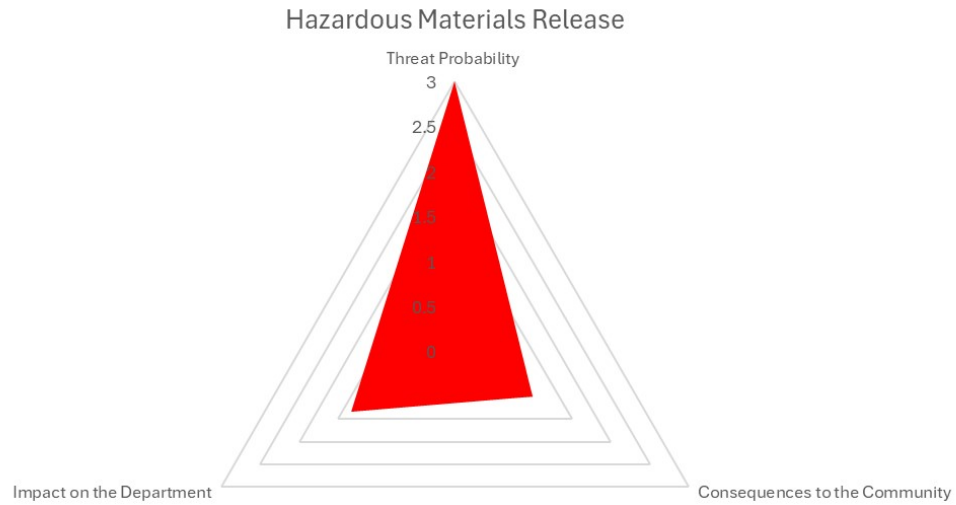
Hazardous Materials Release (Moderate Risk)

The Naperville Fire Department hazardous materials team responds to and mitigates incidents involving chemical transportation accidents, chemical spills in businesses, manufacturing facilities, and residential single and multiple-family dwellings. The Hazmat Team also responds as part of the MABAS Division 16 Team. Many of the incidents the team responds to are odor investigations or small spills and leaks from various sources. The Naperville Fire Department responds to three levels of hazardous materials incidents: Level 1 (6 Technicians), Level 2 (16 Technicians), and Level 3 (More than 16 Technicians needed). To date, the City of Naperville has not needed in excess of 16 technicians for an incident within the city. The City of Naperville has two major freight rail lines that run through the city and is host to major truck routes like Interstate 88. Finally, the city has a large business and industrial sections, which pose a fixed hazardous material risk.

A hazardous materials spill in Naperville has the potential to cause significant disruptions and closures of major roadways due to the movement of the gas plume. There would be additional challenges in communicating and enforcing evacuation or protect in place directives. The road closures will also hinder emergency response efforts outside of the hazardous materials response. Essential city services should remain unaffected, unless directly involved in the spill or leak. There will potentially be an increased risk of injuries and fatalities due to exposure to toxic materials. Educational facilities and businesses in the impacted area will likely temporarily close, affecting economic activity. There is a potential for damage to private residences and commercial occupancies in the path of the plume or leak, in addition to an increased risk of looting in the evacuation area.



Hazardous Materials Release (Moderate Risk)



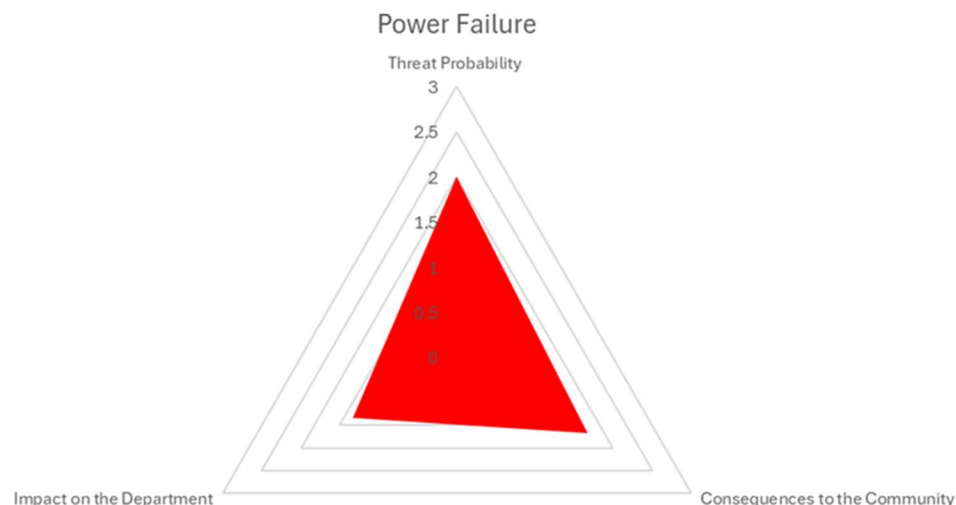


Power Failure (Moderate Risk)

In January 2014, due to events affecting other regions within the Regional Transmission Organization (RTO), Commonwealth Edison (ComEd) activated voltage reduction by 2.5% within its service territory. ComEd provides power to the Naperville Electric Department, which distributes power to businesses and residents. Naperville Electric has over 62,000 residential and commercial customers within the City of Naperville.

Naperville has conducted exercises during extreme weather, including a polar vortex with -20 to -40, at which point switching infrastructure no longer functions with automation and must be manually switched. At the state and regional level, Naperville has participated in exercises involving a cyber attack on the production of electricity or a New Madrid earthquake. A power failure will cause significant disruptions and a potential for widespread panic. Everything from the use of major roadways to public transportation will be greatly impacted. Depending on the duration of the outage, essential needs like food, water, and medication will be affected.

Although over 94% of Naperville's electrical grid is underground, the supply is provided by ComEd and is also susceptible to cyber attack. Depending on the time of year, there could be an increased risk of injuries and fatalities due to hypo/hyperthermia, accidents related to traffic signal outages, and victims with chronic illnesses being unable to attain their regular care. Educational facilities and businesses will likely temporarily close, impacting public health, food access, and economic activity. There is a potential for damage to private residences and commercial occupancies from improper use of generators and looting.



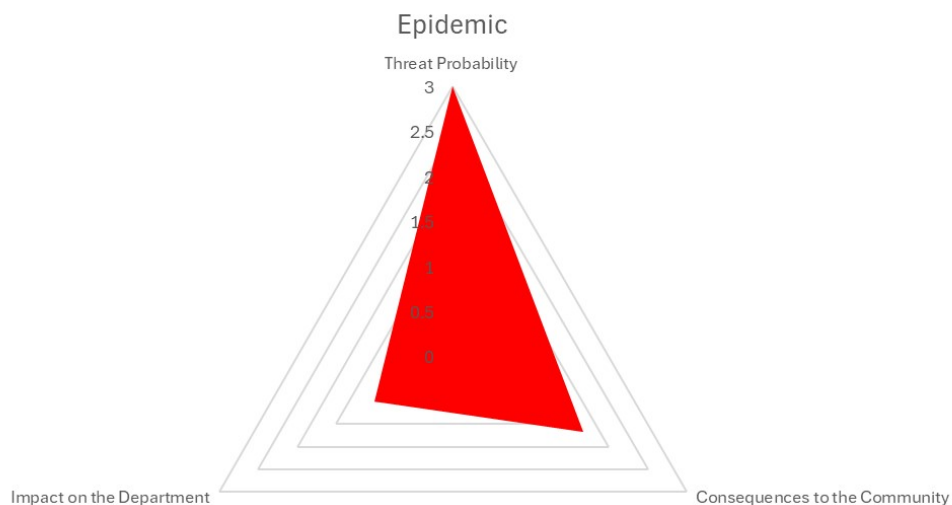


Epidemic (Moderate Risk)

Recent epidemics that affected the Naperville Area include:

- Swine Flu Outbreak Communicable Disease April 2009
- H1N1 Mass Vaccination Clinics Communicable Disease October-November 2009
- Pertussis Outbreak Communicable Disease October 2010-2013
- Pediatric Practice Pertussis Investigation Communicable Disease April-May 2012
- West Nile Virus Human Case Response Communicable Disease August-November 2012

The City of Naperville will rely heavily on messaging and public health measures like social distancing, quarantine, contact tracing, and vaccination campaigns. In addition, the City will focus on public messaging to modify behaviors like smoking or diet in an effort to prevent or mitigate the mortality of the epidemic before it occurs. Recent epidemics have caused more widespread panic in Naperville than dangers to infrastructure or businesses.

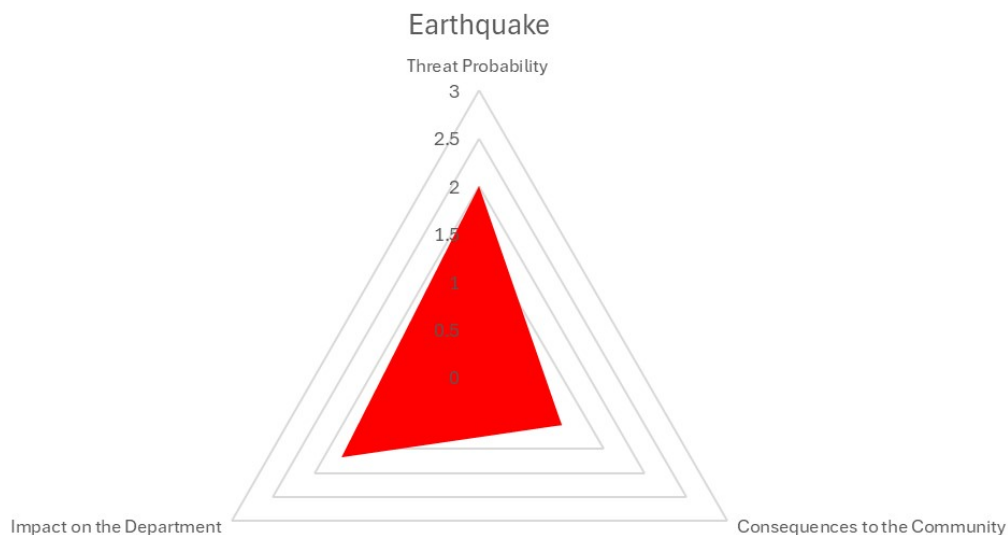




Earthquake (Moderate Risk)

The largest earthquake in the past 10 years within 200 miles of Naperville occurred 143 miles away on May 2nd, 2015, registering a 4.2 magnitude. The closest earthquake to Naperville in the last 10 years occurred 30 miles away on July 15th, 2024.

The closest faults to Naperville are the New Madrid fault and the Wabash Valley Zone. The New Madrid Fault stretches over 150 miles from the central Mississippi Valley, affecting states like Arkansas, Missouri, Tennessee, and Kentucky. Naperville is not directly on these fault lines; however, earthquakes occurring in these zones can be felt in the area. Naperville's infrastructure is not hardened to protect against seismic activity, given the low potential of occurrence. If a 6 or greater magnitude earthquake strikes our area, there is potential for damage to much of Naperville's infrastructure. There is potential damage to roadways, causing difficulty in responding to emergencies. Businesses and private residences also could be damaged as a result. Wide-spread power outages are likely, caused by severed underground wires. Potential injuries from falling debris are exacerbated by a lack of earthquake safety education. Current plans are not focused on earthquakes.

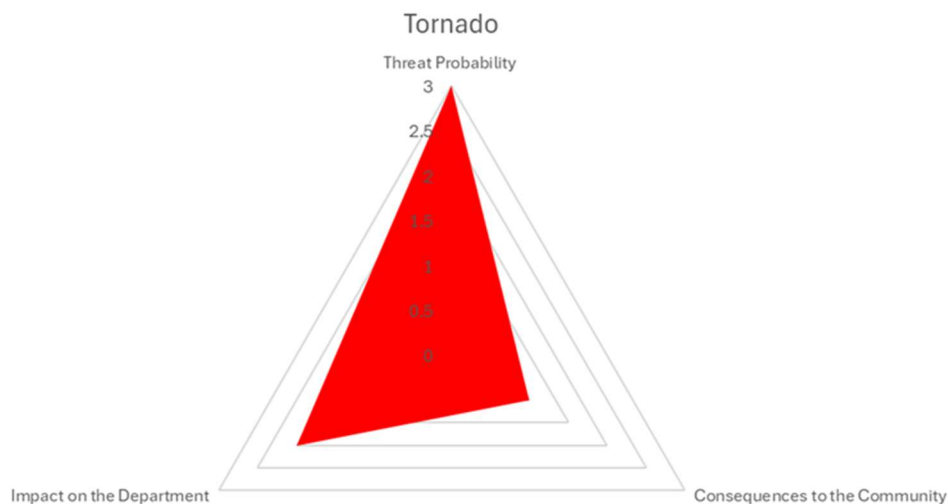




Tornado (Moderate Risk)

Although tornadoes can and have occurred during any month of the year, the months of April, May, and June are the most active months for tornadoes. The occurrence of tornadoes by time of day is most likely between 1:00 PM and 11:00 PM, with the peak time of 5:00 PM. Since 1950, the majority of tornadoes have been EF-0s and EF-1s. On Father's Day 2021, Naperville experienced an EF-3 tornado. Then, on July 23, 2022, Naperville experienced an EF-0 tornado.

A tornado will cause significant disruptions and closures of major roadways due to impassable conditions caused by debris and localized flooding. There is a potential for stranded motorists in need of rescue. The road closures will also hinder emergency response efforts and citizens' ability to provide for their essential needs. There is a potential for widespread power outages due to damage to high-tension lines. Although over 94% of Naperville's electrical grid is underground, the supply and transfer stations remain above ground and susceptible to severe weather. There will be an increased risk of injuries and fatalities due to flying debris, building collapse, accidents related to poor driving conditions, and victims with chronic illnesses being unable to attain their regular care. Educational facilities and businesses will likely temporarily close after the tornado and act as areas of refuge during the initial impact. There is a high potential for damage to private residences and commercial occupancies from high winds and damaging hail. Current plans are in the process of being updated. City leadership requires more training on NIMS/ICS and the implementation of response plans.

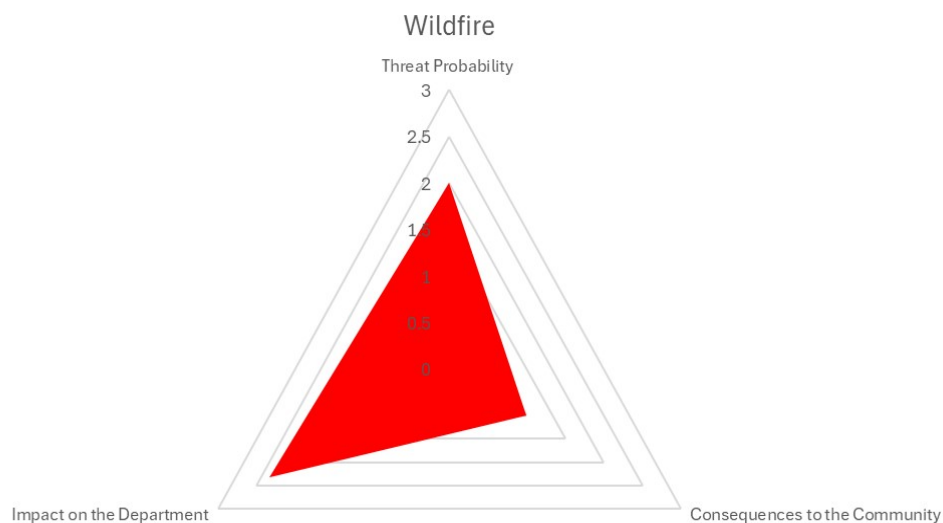




Wildfire (Moderate Risk)

The City of Naperville has not experienced a large wildfire in the past two decades. However, the likelihood of wildfire does exist. This likelihood is derived from fire-behavior models obtained from the USGS. The existence of a wildfire likelihood is not a prediction of events.

The City of Naperville covers several forest preserve areas, including Greene Valley Forest Preserve with 1388 acres, McDowel Grove forest preserve encompassing 465 acres, and Springbrook Prairie covering 1829 acres. When incidents occur in areas without immediate access to hydrants, the Department is fully capable of conducting rural water supply operations, enabling continuous water delivery through tanker shuttles and other established methods. To reduce wildfire risks and maintain ecological balance, prescribed burns are periodically conducted by authorized agencies. These controlled burns help manage excessive vegetation, limit overgrowth, and lower the likelihood of uncontrolled wildfires. Prior to any burn activity, the Naperville Fire Marshal's Office issues the required burn permits and ensures that all relevant departments, agencies, and stakeholders are notified.

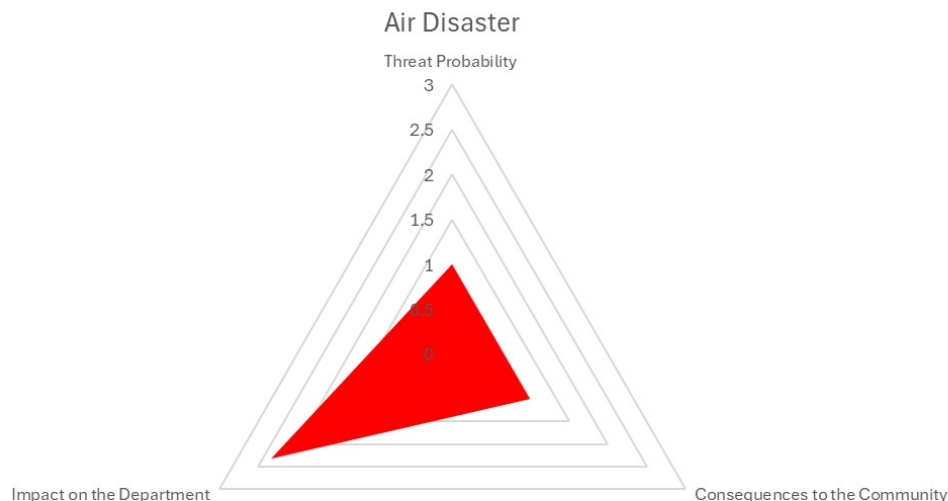




Air Disaster (Moderate Risk)

On October 6, 2010 a single-engine Piper PA-32R-300 crashed into the roof of the XSport Fitness center in Naperville, Illinois. The aircraft was taking off from the Aero Estates subdivision, a residential airport community. The plane struck a decorative cupola on the southwest corner of the XSport Fitness center. Injuries were limited to the pilot and passenger. Both occupants were removed by fire department personnel. There were over three hundred people in the fitness facility at the time of the crash.

The service area for the Naperville Fire Department has a moderate risk for air disasters. The planes flown at Aero Estates are recreational planes generally containing 1 to 2 passengers. While regionally there are airports located in surrounding suburbs, the potential for any impact on Naperville is limited. Naperville is covered by the Chicago Air Route Traffic Control Center (ARTCC) and falls within the Chicago Sectional Chart area. It's located near smaller airports such as Naper Aero Club (LL10) and DuPage Airport (KDPA), so the surrounding airspace is typically Class G-controlled. However, Naperville also sits underneath the broader Chicago Terminal Control Area (Class B airspace). An air disaster can potentially cause significant traffic problems depending on the location of the incident. There is a potential for limited access for first responders to the incident site.

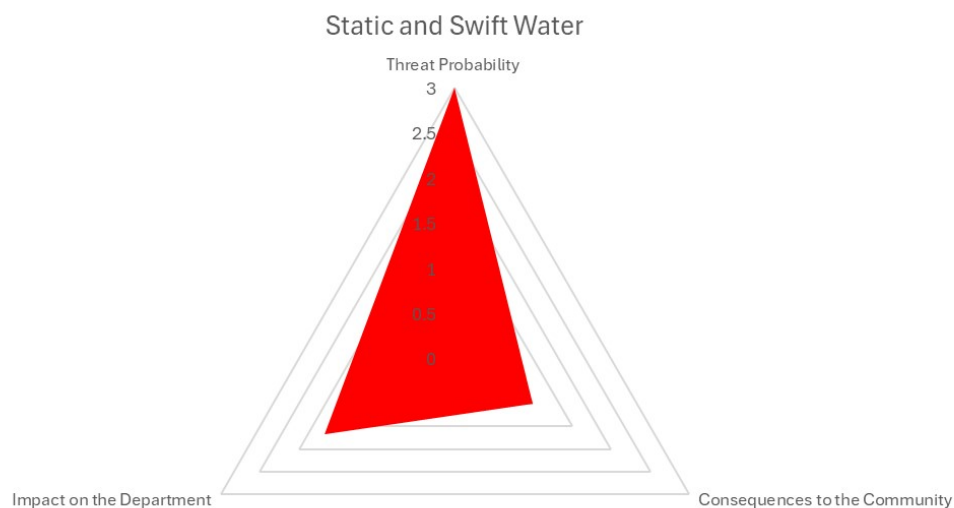




Static and Swift Water (Moderate Risk)

The Naperville Fire Department responds to an average of five static water incidents and three swift water incidents annually. The probability of the Naperville Fire Department responding to a water rescue event is high. In July of 2025, the Naperville Fire Department Water Rescue Team responded to a drowning event that resulted in a fatality.

All department personnel are trained to operate at the water-awareness level for water rescue incidents. Every front-line apparatus carries essential water-rescue equipment, including personal flotation devices, throw-rope bags, and life rings, enabling immediate initiation of rescue operations upon arrival. The Naperville Fire Department's operational readiness is strengthened through established partnerships with MABAS agencies and the integration of water-rescue operations with the Naperville Police Department. These collaborative efforts enhance response capacity, resource availability, and overall efficiency. All large-scale or complex incidents are managed utilizing an incident command structure consistent with the National Incident Management System (NIMS). Impact on the department is low, and consequences to the community are limited to those immediately involved in the incident.



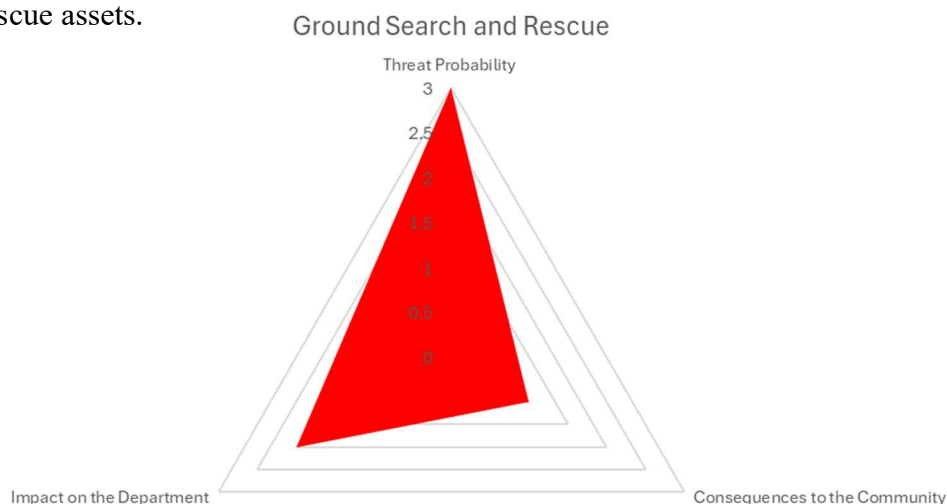


Ground Search and Rescue (Moderate Risk)

In August of 2025, the Naperville Fire Department, the Naperville Police Department, and the Naperville Emergency Management Agency assisted the DuPage County Forest Preserve in the search and rescue of a missing person. After multiple operational periods, the victim was located and recovered from the search area. Search and Rescue requests are a regular occurrence for the Naperville Emergency Management Agency. Events involving other city departments are less likely to happen, occurring once every three to four years.

Search and Rescue operations for missing individuals within the City of Naperville are initially coordinated by the Naperville Police Department, with support from the Naperville Fire Department. Deployment decisions are made by Police and Fire Department incident commanders based on the nature and urgency of the incident. Initial operations focus on the immediate area where the individual was last seen, utilizing nearby fire stations and available field resources to establish a rapid search footprint. Search and Rescue operations have a low consequence to the overall community unless the activities are part of a larger-scale disaster.

As incident complexity or duration increases, the response is expanded to include mutual aid fire agencies, Emergency Management Agency resources, and Community Emergency Response Team personnel to enhance search coverage, logistical support, and specialized capabilities. The Naperville Fire Department also contributes technical expertise through several department members who serve on Illinois Task Force 1 (IL-TF1) Urban Search and Rescue, providing access to advanced search, rescue, and incident support capabilities when needed. The impact on the department is moderate, given the preparedness level and access to internal and external search and rescue assets.

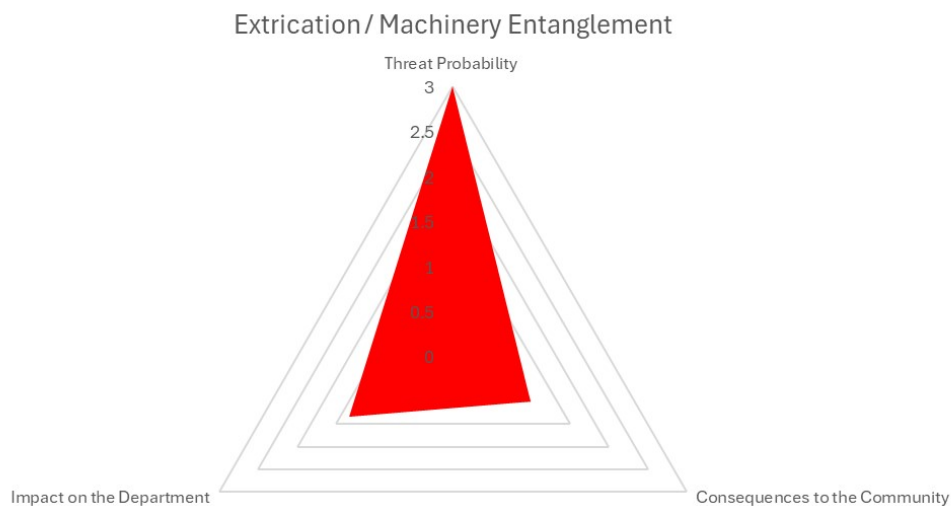




Extrication / Machinery Entanglement (Moderate Risk)

The Naperville Fire Department responds to an average of twenty-five to thirty entrapment and extrication incidents annually. These incidents range from a child stuck between the staircase spindles to victims trapped after a vehicle accident or in an industrial machinery incident. Motor vehicle accidents involving extrication are the high-frequency, high-risk extrication activities the department responds to.

Extrication and entanglement incidents have the likelihood of placing significant operational and logistical demands on the fire department. These calls often require extended on-scene times, high staffing levels, specialized equipment, and rigorous tool maintenance. Increased use of exotic metals in vehicle construction results in more complex, labor-intensive rescues, accelerating equipment wear, and requiring continuous training and upgrades. The fire department is able to fulfill the initial response requirements with resources solely from the Naperville Fire Department. Available external assets are also plentiful and offer quick response times. Motor vehicle crashes requiring extrication represent the highest consequences to the community when compared to other entanglement incidents. Extrication incidents can cause increased morbidity and mortality for trapped victims. These incidents can also cause roadway closures, causing traffic disruption and secondary incidents.

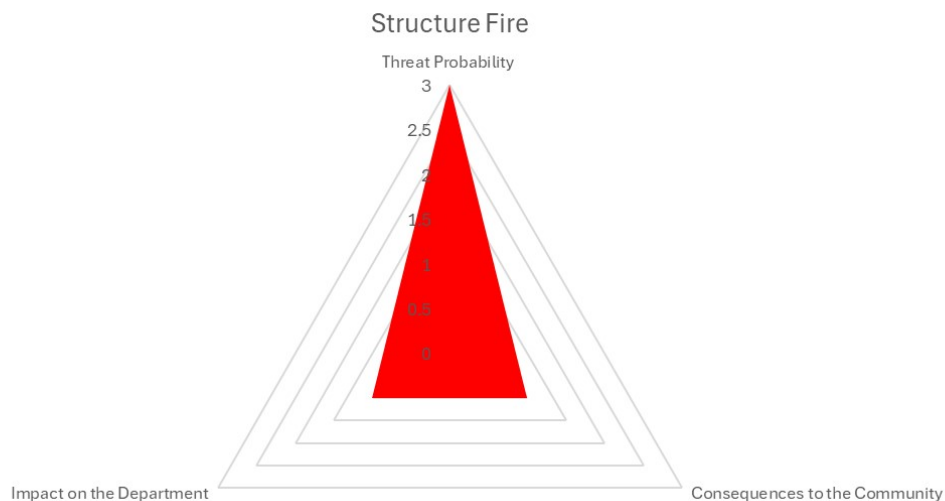




Structure Fire (Moderate Risk)

The Naperville Fire Department responds to an average of forty structure fires annually. The department maintains a comprehensive structural firefighting capability designed to rapidly control and mitigate structure fires in residential, commercial, and industrial occupancies. Front-line apparatus are equipped with advanced suppression equipment, thermal imaging cameras, ground ladders, forcible entry tools, ventilation equipment, and various hose configurations to address fires in both low-rise and multi-story environments.

For confirmed structure fires, the Naperville Fire Department dispatches a general alarm response including three engines, two trucks, two medic units, a squad, Car 47, two Battalion Commanders, and a RIC Chief. Large or complex incidents may necessitate an external response from MABAS, including additional aerial apparatus, specialized air supply units, and canteen or rehabilitation resources. The location and type of structure fire dictate the consequences to the community. A structure fire may cause disruption of critical services, such as utilities, transportation corridors, or essential facilities. They have the potential to impact the economy, including business interruption, displacement, and reconstruction costs. The Naperville Fire Department is remaining proactive in assessing changing fire risk by tracking and documenting the number of solar panels and EV chargers in the city. Timely and effective fire suppression is critical to limiting losses, protecting residents, and sustaining community resilience.



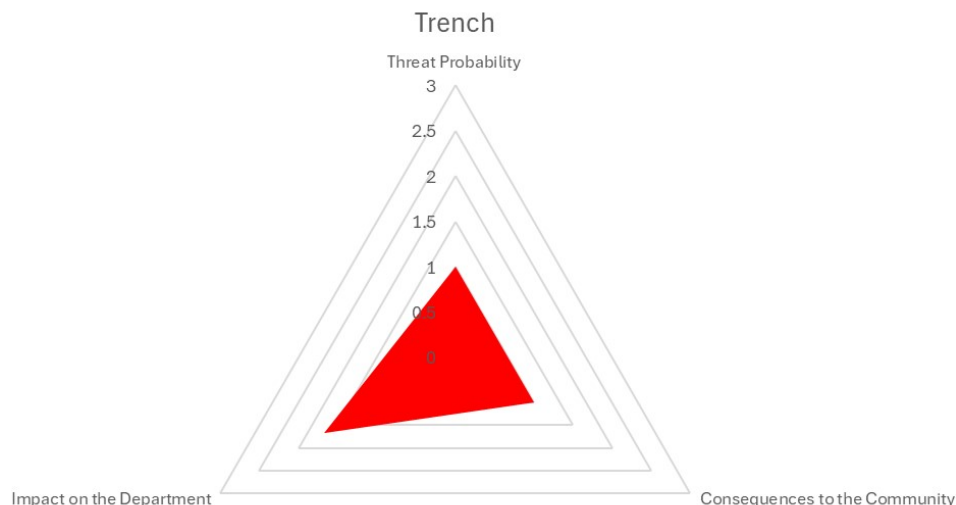


Trench (Moderate Risk)

The Naperville Fire Department maintains an operational trench rescue capability through its Technical Rescue Team, supported by front-line suppression companies and regional mutual-aid partners. Trench rescue operations involve the stabilization and retrieval of individuals trapped within trench collapses, excavations, or confined earthen spaces. These incidents are technically complex and require specialized shoring systems, atmospheric monitoring, ground pads, cutting equipment, rescue panels, and non-entry retrieval systems.

The department's Technical Rescue Team personnel are trained to the Illinois Office of the State Fire Marshal and NFPA standards for trench rescue, including hazard assessment, soil classification, shoring installation, victim access, and non-entry/entry rescue operations. The Technical Rescue Team vehicle contains hydraulic shores, pneumatic struts, ladders, and additional tools needed for safe trench entry and stabilization. If the incident requires an external resource response, the department will utilize the MABAS Division 16 Technical Rescue Team and regional trench rescue specialists for reinforcement and extended operations.

Trench collapse incidents are high-consequence events for those involved in the incident. However, the consequence to the general community is relatively low. A trench rescue incident may cause extended disruption at construction or utility sites, potentially impacting traffic, utilities, and local businesses. This can develop into economic impacts, including delays to development projects, equipment loss, and regulatory investigations.

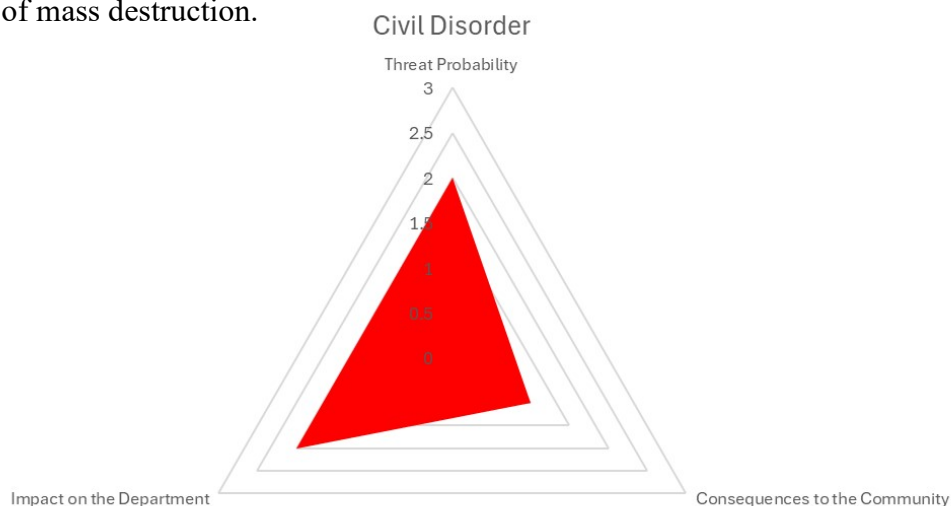




Civil Disorder (Moderate Risk)

In June 2020, the nationwide George Floyd protests made their way to Naperville. What started as peaceful demonstrations escalated into violence, property damage (smashed windows, attempted break-ins at stores like Apple, Barnes & Noble), and traumatic injuries. There were no fatalities or major fires; however, it showed that Naperville is not immune to the threat of civil disorder.

The Naperville Fire Department maintains a coordinated capability to respond to incidents of civil unrest, protests, or riots in partnership with the Naperville Police Department and regional mutual-aid agencies like ILEAS. The Fire Department's Tactical Emergency Medical Support Team takes an active role focusing on life-safety operations, including fire suppression, emergency medical support, evacuation assistance, and hazard mitigation, while working under law enforcement-directed safety parameters. All Naperville Fire Department personnel are trained in civil disorder awareness and emergency scene safety. Civil Disorder carries high-consequence risks to life, property, public order, and community morale. Impacts to the community include injuries from violence, fires, stampedes, or hazardous materials. Property damage and looting of commercial and residential structures can impact the City's economy. Blocked roadways, to secure the perimeter, will limit access for first responders and impact the daily commuters. Civil Disorder incidents that require an external response will be coordinated through the Naperville Police Department and the Illinois Law Enforcement Alarm System (ILEAS). Note: ILEAS is a mutual aid network focused on law enforcement resources from within the state. Specialties include investigations, mobile field force, special response teams, and weapons of mass destruction.

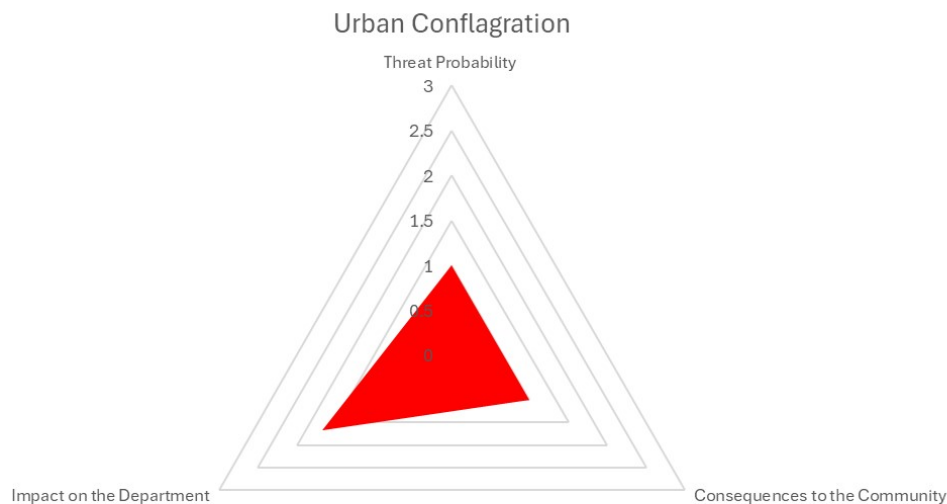




Urban Conflagration (Low Risk)

There is no history of urban conflagration in the city of Naperville. However, over the course of the past ten years, there have been a number of near misses due to perfect weather conditions that have prevented the disaster.

A potential hazard area exists in the downtown area of Naperville. The district has large single-family residences placed within ten to fifteen feet of one another. In addition, the downtown area has blocks of multistory ordinary and wood frame structures that have experienced two hundred years of renovations. A strong wind has the potential to cause a conflagration throughout the urban area. The fire would result in families displaced from their homes, loss of business for those occupancies that were engulfed in fire, and would require long-term recovery efforts. The City of Naperville recently established temporary shelter MOUs with local community groups and has facilitated the training of Naperville Emergency Management Agency volunteers in Shelter Management.

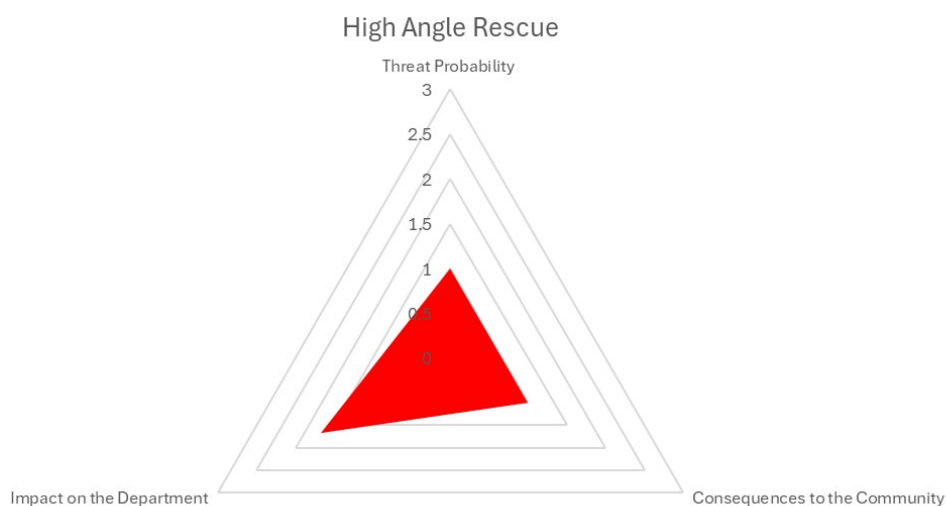




High Angle Rescue (Low)

The city of Naperville has a low probability of a high-angle rescue incident. The Naperville Fire Department maintains an operational high-angle rescue capability through its Technical Rescue Team and strategically equipped front-line companies. High-angle operations include rescues performed on steep terrain, elevated structures, multi-story buildings, towers, bridges, construction sites, and other locations where rope-based access is required. The Naperville Fire Department's Technical Rescue Team members receive specialized training in rope systems, pick-off rescues, ascending/descending operations, mechanical advantage systems, and patient packaging for vertical extrication.

If a high-angle incident exceeds internal response capabilities, the Naperville Fire Department relies on external response from MABAS Division 16 and regional technical rescue assets through established mutual-aid agreements. Severe injury or death due to falls, exposure, trauma, or medical deterioration is limited to those directly involved in the incident. A high-angle rescue will likely cause extended closures of public spaces such as construction sites, roadways, or infrastructure facilities. These closures would impact operational disruption to utilities or businesses if the incident involves elevated work platforms, cranes, or industrial structures.

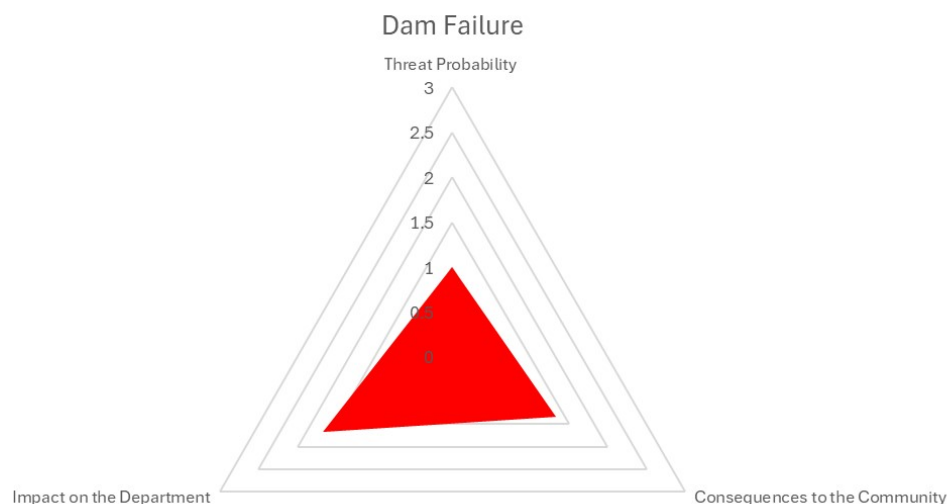




Dam Failure (Low Risk)

The city of Naperville has one class 1 dam in its jurisdiction. The Fawell Dam is classified based on its hazard potential. Class 1 signifies a "high probability of causing loss of life or substantial economic loss if it were to fail". DuPage County maintains ownership and maintenance responsibilities for the Fawell Dam.

A failure of the Fawell Dam would have potentially catastrophic downstream consequences. The City of Naperville's Water Department's North Operations Center and Fire Station 9 would likely be impacted by the water surge. The downtown Naperville district would experience flooding along the DuPage River. Major roadways like Washington Street would be impassible and likely have stranded motorists. Access to Edward Hospital would be limited due to its close proximity to the river, and roadways leading to the facility would potentially be flooded. The road closures will also hinder emergency response efforts and citizens' ability to provide for their essential needs. There is a potential for widespread power outages due to over 94% of Naperville's electrical grid being underground. There will be an increased risk of injuries and fatalities due to hypothermia, accidents related to poor driving conditions, and victims with chronic illnesses being unable to attain their regular care. Educational facilities and businesses in the downtown area will likely temporarily close, impacting public health, food access, and economic activity. There is a potential for damage to private residences and commercial occupancies from localized flooding. Current plans are in the process of being updated.

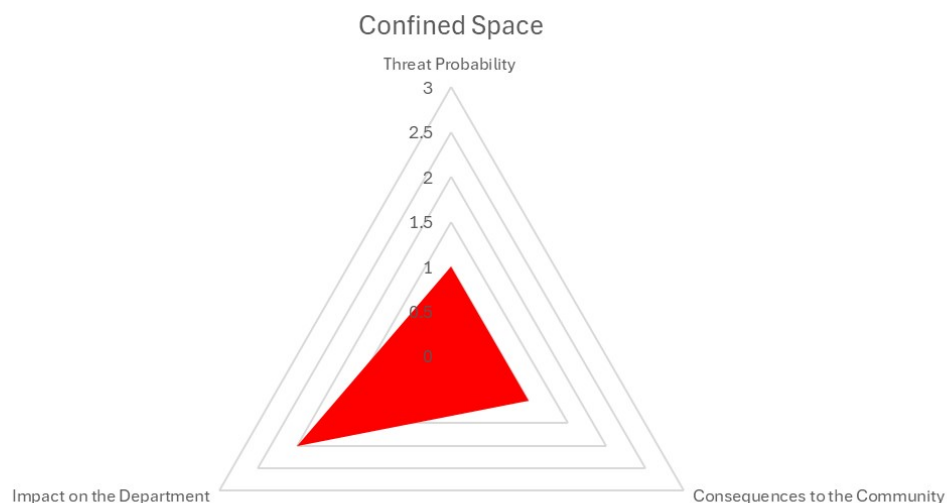




Confined Space (Low Risk)

The Naperville Fire Department is noted as the rescue team for various confined space entries made by both private entities and other city departments. These entries occur several times a month. In 2010, the Naperville Fire Department responded to Dukane Precast for a confined space incident. The Naperville Technical Rescue Team, with the assistance of other area fire departments and city departments, facilitated the rescue of the victim.

A confined space incident has limited consequences to the community. Limited impact to major roadways; they may be impassable due to the amount of resources responding to the incident. The injury potential will be limited to those directly involved in the incident and is generally limited to one to two victims. There is a potential for widespread power outages due to damage to high-tension lines. There will be an increased risk of injuries and fatalities due to the low frequency of these events and the limited access to the incident location, building collapse, accidents related to poor driving conditions, and victims with chronic illnesses being unable to attain their regular care. The only businesses that will likely be impacted are those directly involved in the incident. The City of Naperville currently utilizes a Confined Space Simulator to train entry personnel and rescue personnel.





HISTORICALLY SIGNIFICANT AREAS

The Naperville Fire Department maintains comprehensive records within the records management system documenting event consequence data, including dollar loss, fatalities, and injuries. This information is preserved for organizational analysis and is reviewed annually during the development of the department's Annual Report. The data is further evaluated as part of the review and revision process for Category 2 of the Accreditation Self-Assessment Manual (SAM).

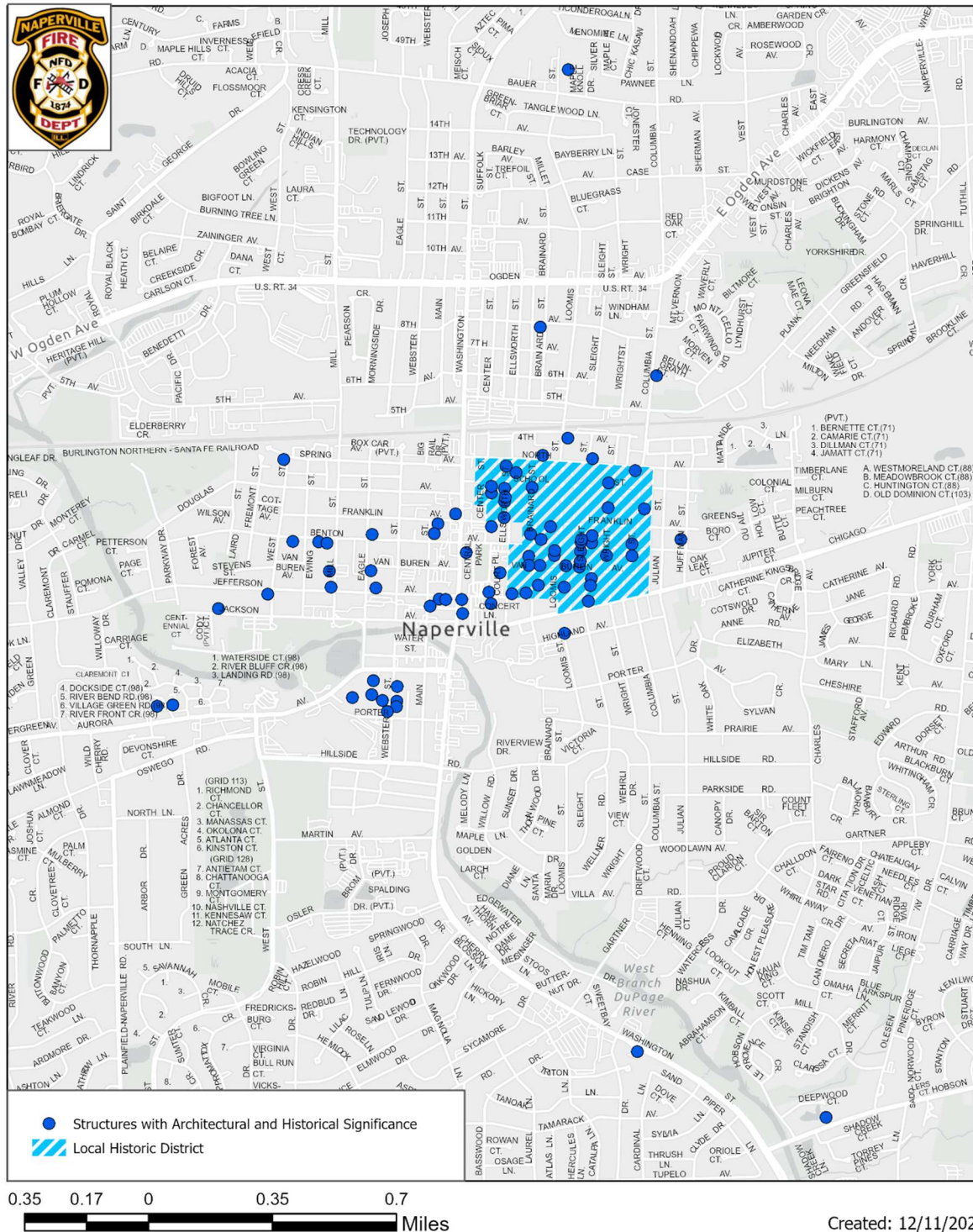


Target hazards within the City of Naperville are formally identified, and building-specific data is maintained in the records management system. This includes inspection histories, noted violations, response records, and associated activity data. The

department evaluates the potential consequences of partial or complete loss of each target hazard, including the anticipated property loss and overall community impact within the corresponding response areas.

The Naperville Fire Department also maintains a strong collaborative relationship with Naper Settlement, administered by the Naperville Heritage Society. Established in 1969, Naper Settlement functions as an educational, historical, and cultural resource for the community. The museum curator regularly assists the department in identifying and documenting historically significant structures throughout the city. These landmarks represent critical community assets and receive appropriate consideration within the department's risk assessment and planning processes.

Structures with Architectural and Historical Significance





RISK HAZARD CLASSIFICATION PROCESS

The Naperville Fire Department employs a structured and repeatable methodology to identify, analyze, and prioritize risks within the community. This methodology integrates building characteristics, life safety considerations, fire behavior indicators, water supply capability, and potential community impact to produce a defensible and data-driven risk profile for each occupancy.

The risk and hazard evaluation process begins with an assessment of the physical characteristics of the occupancy, including total square footage and intended use. Square footage is used as a primary determinant in establishing baseline fire flow requirements necessary to support effective fire suppression operations. Where applicable, the posted occupant load is evaluated to determine the maximum number of individuals reasonably expected to be present at any given time. Occupant load data are obtained from posted signage, architectural plans, or, when required, estimated using International Building Code (IBC) occupant load factors. This approach ensures consistency with nationally recognized building and fire codes while allowing for accurate risk estimation in the absence of posted data.

Length			Width			Area Per Floor		
200	66.67	60.96	60.01	20	18.29	12,000	1,333.33	1,114.84
ft	yd	m	ft	yd	m	sq ft	sq yd	sq m
Ceiling Height			Volume Per Floor			Floors Above Grade		
ft	yd	m	cu ft	cu yd	cu m			
Floors Below Grade			Total Area			Total Volume		
			12,000	1,333.33	1,114.84			
			sq ft	sq yd	sq m	cu ft	cu yd	cu m
Total Billable Area			Number of Common Areas					
sq ft	sq yd	sq m						

Fire flow demand is calculated by incorporating multiple contributing factors recognized by the IBC and fire protection engineering principles. Construction type, as defined by the IBC (Types I through V), is evaluated due to its direct influence on fire spread, structural integrity, and collapse potential. Additional considerations include the total area per floor, the number of floors above grade, and the presence or absence of automatic fire sprinkler systems. Where approved sprinkler systems are installed, appropriate fire flow reductions are applied in accordance with



recognized code trade-offs, reflecting the enhanced fire control capability provided by automatic suppression systems. Fuel load is also considered, encompassing both structural components and contents, as higher combustible loading increases fire intensity, duration, and operational complexity. Finally, the assessment evaluates building exposures within 30 feet, recognizing the increased risk of fire spread to adjacent structures and the corresponding impact on fire flow demand and suppression strategy.

Building-related risk factors are further analyzed to determine the overall hazard profile of the structure. These factors include construction type, total building area, vertical complexity as defined by floors above and below grade, and the degree of exposure separation from nearby structures. Fire department access is evaluated to ensure that apparatus access roads, fire lanes, and points of entry meet applicable code requirements and support effective emergency operations. Limitations in access or increased travel distances are recognized as compounding risk factors that may adversely affect response time and operational effectiveness.

Building

Average Exposure Separation:	Construction Type:	Floors Above Grade:
31-60	Type II - Noncombustible	1
Floors Below Grade:	Fire Department Access:	Total Area:
0	All Sides	12,000 sq ft, 1,333.33 sq yd, 1,114.84 sq m

Life safety risk is assessed by examining occupant characteristics and protective systems within the occupancy. Posted or calculated occupant load is considered alongside occupant mobility factors, recognizing that populations with limited mobility or special needs present increased evacuation challenges. The presence and functionality of fire alarm and occupant notification systems are evaluated, as these systems play a critical role in early warning and life safety outcomes. Existing fire protection systems are also reviewed for compliance with current IBC and International Fire Code standards, ensuring that legacy systems are appropriately accounted for in the overall risk profile.

Life Safety

Posted Occupancy Load:	Occupant Mobility:	Warning Alarm:
120	Awake/Ambulatory, 1-2 stories	Automatic-Central
Exiting System:		
Conforming		



Risk categorization is aligned with the International Building Code Risk Categories defined in Section 1604.5, which classify buildings based on the potential consequences of failure and impact on human life. While these categories are primarily structural in nature, they provide an important contextual framework for understanding the relative importance of occupancies within the community and their influence on emergency response priorities.

The likelihood or frequency of adverse events is evaluated through an analysis of regulatory oversight, human activity, and operational experience. Occupancies subject to frequent inspections and strict regulatory compliance are generally associated with reduced likelihood of uncontrolled fire events, whereas less regulated occupancies may present elevated risk. Human activity levels are assessed by distinguishing between controlled environments with restricted access and unrestricted occupancies with high public interaction.

Additionally, the assessment accounts for special events, infrequent activities, or operational changes that may temporarily increase occupant load or fire risk beyond normal conditions.

Consequence analysis focuses on the potential severity of a fire event and the agency's capacity to control it. This includes evaluating whether a fire is likely to be contained within the building of origin or whether exposures pose a significant threat to adjacent structures. The analysis considers the anticipated level of resource deployment required, ranging from routine suppression operations to major or complex incidents involving extreme fire behavior. Hazards to firefighter safety are explicitly evaluated, including physical, chemical, biological, and psychosocial risks that may increase the likelihood of injury or operational failure. A hazard index is used to document conditions such as hazardous materials, excessive fire load, structural deficiencies, or impaired fire protection systems that contribute to elevated risk.

CONSEQUENCE

Capacity to Control:

Control within building of origin

Hazard Index:

Mixed hazards (business)

Fire Load:

Ordinary Hazard Group 1

Water supply capability is assessed by comparing required fire flow to available fire flow at the site. Available fire flow is verified through hydrant flow testing or municipal water system data to confirm that sufficient water is accessible to support firefighting operations. The presence of automatic sprinkler systems and standpipe systems is documented, as these systems significantly



influence suppression tactics and resource requirements. Compliance with required inspection and testing, including NFPA five-year internal sprinkler pipe inspections, is also evaluated to ensure system reliability during emergency operations.

Water Demand

Fire Flow Required - Fire Flow in GPM	Fire Flow Available:	Fire Sprinklers:
1,275	Yes	Yes
Standpipe Systems:	NFPA Five Year Inspection:	
No	Yes	

The final component of the risk assessment examines the potential impact of a major fire on the broader community. This evaluation considers the value of the occupancy to the community, including potential personal and family displacement or loss, disruption to local businesses, economic consequences such as job loss or reduced tax base, and the destruction of irreplaceable community assets, critical infrastructure, or historically significant structures. These impacts are recognized as key elements of community risk under the CPSE CRA-SOC model.

Impact to Community - Value

Value to the Community:

Business loss, minor casualty exposure

Upon completion of the assessment, an overall risk score is assigned to the occupancy, categorized as low, moderate, or extreme. This score reflects the integrated analysis of hazard, likelihood, and consequence.

Risk Score

Calculate Risk Score	Risk Score	Risk Classification:
	30	Moderate

Executive leadership retains the authority to elevate risk classifications based on strategic considerations, occupancy use, or unique construction features. Occupancies identified as presenting an exceptional or disproportionate risk to life safety, property, or community continuity are designated as target hazards and documented accordingly within the agency's risk profile and planning documents.



FIRE PROTECTION SYSTEMS AND BUILDING INSPECTIONS

Fire protection systems and construction type are documented elements of the Community Risk Reduction (CRR) Division's Building Hazard Analysis Report and are used to inform and support emergency response planning for each inspected structure.

In recent years, the City of Naperville has transitioned from a predominance of older, non-protected buildings to newer construction incorporating modern fire alarm and fire protection features. During new construction, the Fire Department's CRR Division and the City's Transportation, Engineering, and Development (TED) Group coordinate to ensure compliance with all applicable building and fire codes.

Prior to occupancy, all buildings undergo joint inspections by the Fire Department and TED, during which required fire protection systems and devices are tested and approved. Following occupancy, all commercial buildings are subject to ongoing fire safety oversight. Annual fire safety inspections are conducted by companies within each fire protection district to verify system functionality and assess general building condition, maintenance, and upkeep. Inspection findings and building information are maintained within the department's records management system. Buildings with significant deficiencies may be flagged with a Computer-Aided Dispatch (CAD) notification comment until corrective actions are completed.

To enhance inspection efficiency and risk-based resource allocation, the CRR Division has implemented a Commercial Occupancy Self-Inspection Program for select low-risk commercial and multi-family residential occupancies with a history of compliance. Under this program, owners or managers complete an annual self-inspection checklist to identify and correct common fire and life safety hazards. This approach maintains an acceptable level of fire and life safety while minimizing business disruption and allows department inspection resources to be focused on higher-risk occupancies.

The Fire Department's Fire and Life Safety Inspection Program is a critical component of the community's overall risk reduction strategy and supports the goals of the Community Risk



Assessment and Standard of Cover. The program is designed to ensure ongoing compliance with applicable fire and life safety codes across all occupancy types while aligning inspection resources with identified risk levels. By prioritizing occupancies based on hazard classification and potential life safety impact, the department enhances prevention efforts and reduces the likelihood and severity of fire-related incidents.

Annual life safety inspections are conducted throughout the year and distributed among fire companies, part-time inspectors, and full-time inspectors according to occupancy type and complexity. This tiered approach ensures that low-hazard occupancies receive routine inspections from fire companies, while higher-risk and more complex facilities are evaluated by inspectors with specialized training and expertise. Fire companies conduct inspections on a quarterly basis, primarily focusing on low-hazard commercial occupancies such as strip malls and similar properties. These inspections also provide company personnel with increased familiarity with buildings within their first-due areas and account for approximately 1,475 inspections annually.

Part-time inspectors assigned to the Code and Standards Division are responsible for inspections of target hazards and high-hazard occupancies. These inspections are also scheduled every quarter and total approximately 652 inspections per year. Full-time inspectors focus on specialized and complex occupancies, including hospitals and other facilities that require in-depth knowledge of fire protection systems and regulatory requirements. Inspections conducted by full-time inspectors are included within the overall inspection workload managed by the Code and Standards Division.

In 2022, the department transitioned from the FireHouse inspection management system to the First Due platform. This transition allowed for a comprehensive evaluation and modernization of the inspection program, resulting in improved data management, enhanced reporting capabilities, and more efficient allocation of inspection responsibilities. As part of this modernization effort, fire companies were relieved of inspecting townhome subdivisions without common areas. These properties are already subject to third-party inspections of sprinkler and fire alarm control rooms, and any deficiencies identified, including storage violations, are reported directly to the



department. This change allowed departmental resources to be redirected toward occupancies presenting a higher level of community risk.

Additional efficiencies were achieved through the consolidation of multi-tenant building inspections. Multi-tenant occupancies are now inspected using a single “Building Master” inspection format, eliminating the need for separate inspection reports for each individual tenant space. While individual tenant areas continue to be evaluated, all violations are documented on the master inspection report, and follow-up inspections to verify corrective actions are assigned to part-time inspectors. This approach improves consistency, reduces administrative workload, and enhances compliance tracking.

The department has also implemented a self-inspection program for small multi-family occupancies, including three-unit apartment buildings and small condominium complexes. Under this program, homeowners' associations or property management companies are provided with a standardized inspection checklist that must be completed and returned within 30 days. Larger multi-family occupancies continue to receive inspections from part-time or full-time inspection staff. If a completed checklist is not received within the established timeframe, a part-time inspector is assigned to conduct an on-site inspection. The program has achieved an approximately 90 percent compliance rate, demonstrating strong community engagement and effectiveness in maintaining fire and life safety standards.

In addition to routine occupancy inspections, the Community Risk Reduction Division conducts periodic inspections of local drinking establishments during periods of increased risk, such as summer months and high-occupancy events, including Black Friday and St. Patrick’s Day. These inspections are typically conducted during evening hours when patron loads are at their highest.

Inspectors verify compliance with posted occupancy limits, confirm accurate patron counts, and ensure that all fire and life safety systems, as well as applicable operational requirements, are properly maintained.

Through the implementation of risk-based inspection assignments, modernization of inspection management systems, and the development of proactive community partnerships, the Fire



Department's Fire and Life Safety Inspection Program works to reduce community risk while ensuring the efficient use of departmental resources. These efforts support efforts to reduce risk consistent with the principles and performance objectives outlined by the Center for Public Safety Excellence.

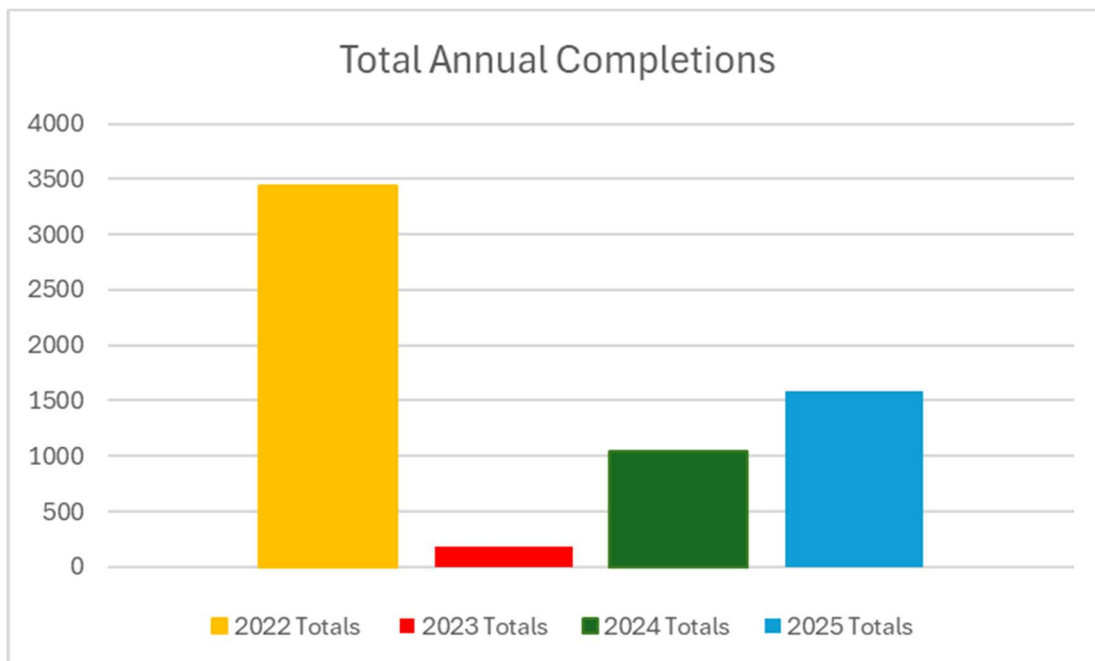
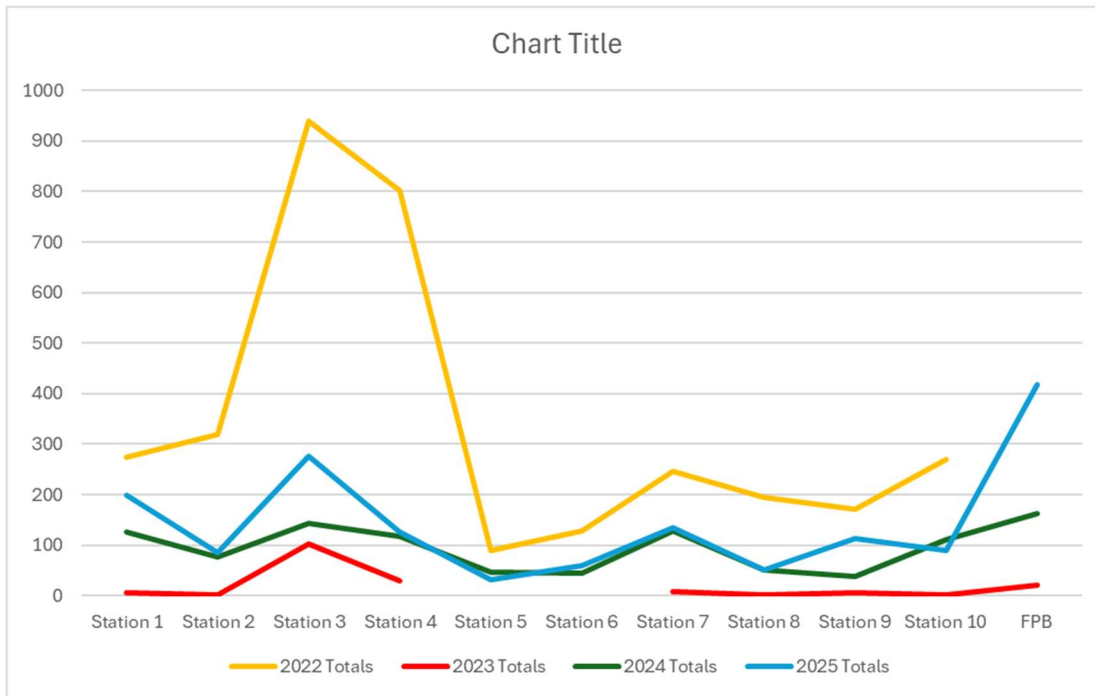
Inspection activity was significantly reduced in 2023. Fire companies conducted minimal inspections, with the majority of completed inspections limited to Target Hazard occupancies. This reduction was largely due to the ongoing data migration from FireHouse to First Due. Inspection totals reported for this year primarily reflect carryover inspections from the previous year, which were completed by part-time 7G inspectors.

Company inspections were formally reinitiated in 2024, with two key procedural changes. First, a self-inspection model was implemented. Second, inspections shifted from individual unit inspections to a building-level inspection approach. While all units within a building continued to be evaluated, a single inspection report was completed per building rather than per unit. This change significantly reduced administrative workload and placed responsibility on building owners to correct identified deficiencies. As this was a transitional year, the department experienced a learning curve and achieved an inspection completion rate of 62 percent.

Inspection performance improved substantially in 2025, with a 93 percent inspection completion rate achieved. To further support operational efficiency and workload distribution, inspections at higher-demand stations were reassigned to part-time Fire Prevention Inspectors assigned to the CRR Division.



FIRE PROTECTION SYSTEMS AND BUILDING INSPECTIONS (DATA VISUALIZATIONS)





RISK HAZARD CLASSIFICATIONS

The risk hazard classification and response assignment are based on the overall risk score attained through the risk classification process. The process and classifications are detailed in the Fire Department Administrative Manual under General Order 2.1.0. This allows line personnel to reference the individual risk hazards and understand how the risks are categorized.

Critical tasking is utilized to attain the response assignments of risk types beyond activated fire alarms. Since 2014, the department has operated under a tiered response model for automatic fire alarms to enhance operational resilience. Under this model, first-due companies respond in emergency mode, while supporting response vehicles respond in a non-emergency mode. All benchmark and baseline performance metrics remain unchanged; however, an increase in Emergency Response Force (ERF) arrival times has been observed for automatic fire alarms. The department continues to prioritize evaluation of ERF arrival times for actual fire and life safety incidents.

Low Risk 0-24 (Single Engine) – Small structures and properties of average size or smaller, generally less than 5,000 SF, or where the potential for life loss is low, has limited potential for fire spread, and the financial impact to the community is minimal. The required fire flow for these structures can be accomplished by a single vehicle at 1,500 GPM or less. Automatic fire alarm responses to these properties without clarifying information would typically receive a single engine response.

Examples: Outbuildings, sheds, recreational equipment, open land, single-family dwellings, free-standing commercial properties including gas stations and single-story restaurants, single-family-attached and multi-family dwellings of five units or less and three stories or less, and Naper Settlement buildings.

Moderate Risk 25-29 (Dual Response) – Structures and properties of substantial size, 5,000 SF to 15,000 SF, or where the potential for life loss is moderate, have a moderate potential for fire spread, and the financial impact to the community is low. The required fire flow for these structures would exceed the capabilities of a single vehicle, ranging from 1,500 GPM to 5,000



GPM. Automatic fire alarm responses at moderate-risk properties without clarifying information will typically result in a dual response.

Examples: Attached business properties or strip malls, multi-family buildings of 6-10 units or of 3 stories or less, boarding facilities/group homes, elementary schools, small churches, preschools/daycare centers, light manufacturing/small mixed-use structures, auto service facilities and public assembly occupancies of less than 500 people.

High Risk 30-34 (Dual Response) – Structures and properties of major size, exceeding 15,000 SF, where the potential for life loss is great, exceeding 500 people, have great potential for fire spread, and would have a major economic impact on the community. The needed fire flow for these structures would require multiple water supplies and in excess of 5,000 GPM. Automatic fire alarms without hazards identified would typically generate a dual response.

Examples: Structures less than four stories, multi-family buildings of more than ten units, hotels/motels, theaters, lumber storage facilities, large churches, shopping malls, large public assembly occupancies, large warehouse/storage facilities, manufacturing/research facilities and automobile dealerships.

High Risk (Full Still- 2 engines, 1 truck, 1 ambulance, 2 Battalions) – Specific incidents which historically pose greater risk to the community and responders but do not require a general alarm response initially. These incidents include possible chimney fires, appliance fires, and inside smoke investigations.

Target Risk 35 and above (General Alarm-3 Engines, 2 Trucks, 1 Squad, 2 Ambulances, 2 Battalions) – Structures, properties, and complexes of significant size or of abnormal risk that present a high risk of life loss or unique firefighting challenges due to their occupancy and construction, or properties located more than 1,000 feet from a fire hydrant. These buildings would require a fire flow greater than 5,000 GPM, may have limited access, have occupants who lack the capability of self-preservation, are considered high-rise by Naperville standards at four or more stories, contain moderate or high amounts of hazardous materials, or are densely populated. Automatic fire alarms without hazards identified would typically generate a general alarm response.



Examples: Hospitals, skilled nursing facilities, assisted living residences, independent living homes, high schools, and buildings 4 or more stories.

Note: Incidents involving confirmed fire involvement with any risk group result in a general alarm response or immediate general alarm upgrade.

The fire department has designated 53 individual properties as target hazards deserving of a general alarm response for an automatic fire alarm. These include hospitals, skilled nursing facilities, elderly assisted living homes, elderly independent living residence type occupancies, and high-rise buildings over four stories. The following table identifies the distribution of special and maximum risk properties throughout the city.

Special Rescue Response (1 Engine, 1 Truck, 1 Squad, 2 Medics, 2 Battalions) –

A Special Rescue Response is utilized for incidents that involve extrication, any incident involving specific special team support beyond the operations level and any incident identified as needing additional support as determined by the incident commander.

Response to Incidents of Mass Violence (General Alarm Assignment, Medic Box Alarm followed by a 2nd Alarm Medic Box) – Incidents of mass violence includes any type of incident in which mass casualties are created as a result of a violent act or acts. Incidents of mass violence are primarily law enforcement events. Initial efforts of the fire department include establishing communications with law enforcement, mobilizing resources and establishing casualty collection areas and beginning triage and treatment of the injured

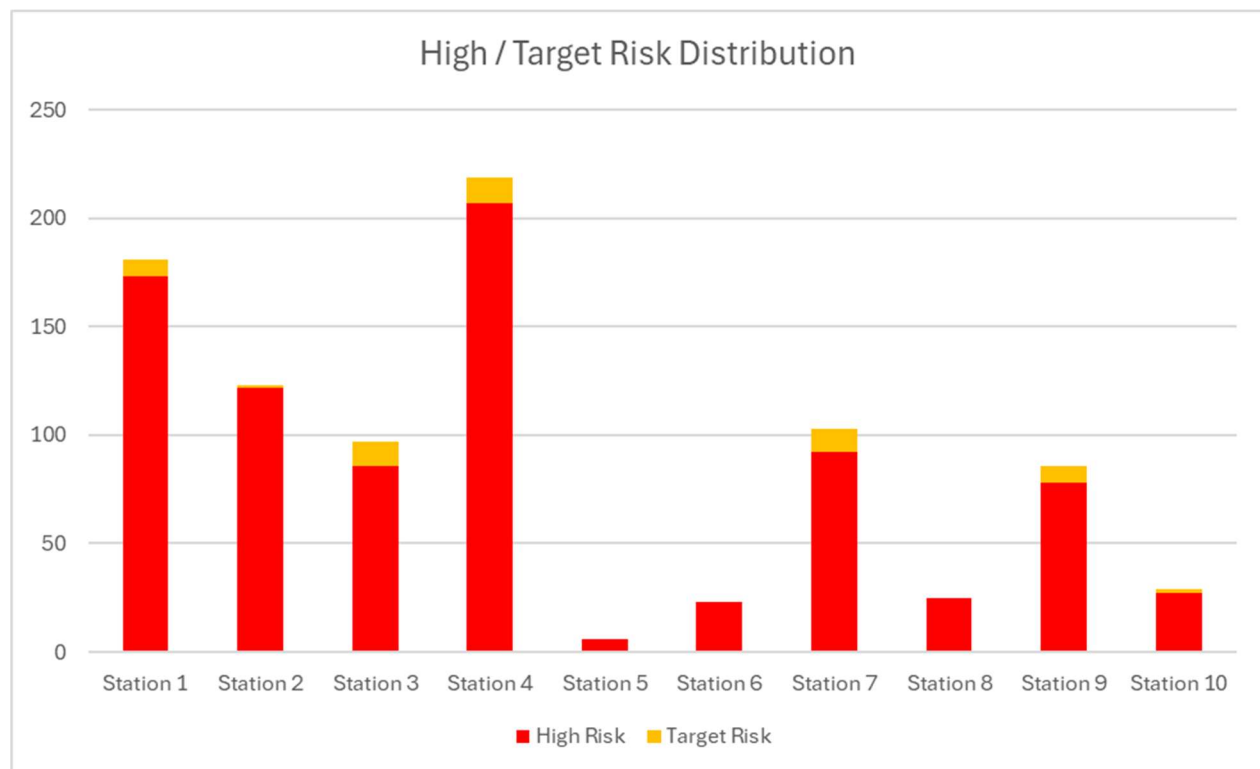


PROPERTY RISK DISTRIBUTION

Still District	High Risk	Target Risk
Station 1	173	8
Station 2	122	1
Station 3	86	11
Station 4	207	12
Station 5	6	0
Station 6	23	0
Station 7	92	11
Station 8	25	0
Station 9	78	8
Station 10	27	2

Southside District

Northside District





CURRENT DEPLOYMENT AND PERFORMANCE

The Fire Department has established standardized alarm assignments for emergency medical services (EMS), fire suppression, and specialty response incidents based on identified community risks. These response configurations are defined in the Fire Department Manual and the Fire Department Dispatching Reference Manual, which specify resource allocation, staffing levels, and procedures required to initiate an appropriate and timely response. Alarm levels are routinely evaluated to ensure alignment with community risk, service demand, and operational capability.



Emergency Medical Services represent the highest demand for services within the community. EMS call volume has demonstrated a consistent upward trend until growth plateaued in 2025. The greatest demand is concentrated within the first-due areas of Stations 4, 7, and 9. Through the CRA-SOC review process, the department establishes call distribution, unit utilization, and response performance. This data is used to adjust vehicle deployment and prioritize maintaining effective service delivery. Additionally, the distribution of fire department assets within the southern portion of the community is currently under review to identify opportunities for improved efficiency and response performance.



Specialty response team capabilities have proven adequate for the community's identified hazards and historical incident frequency. While risks exist that justify the presence of hazardous materials, technical rescue, water rescue, and other specialty disciplines, incidents requiring full specialty team activation occur infrequently. First-due companies successfully mitigate the majority of incidents initially categorized as hazardous materials events. The most common technical rescue incidents involve motor vehicle extrication, which are routinely managed by assigned specialty companies. Surface water rescue incidents are often stabilized or resolved by first-arriving units before the arrival of the Water Rescue Team. The department also maintains specialized response capabilities through its Unmanned Aircraft System (UAS) and Tactical Emergency Medical Services (TEMS) Team.



The department has progressively enhanced specialty team effectiveness through targeted training, equipment acquisition, and collaboration with MABAS Division 16. Participation in regional hazardous materials, water rescue, and technical rescue teams has increased service availability, depth, and redundancy across jurisdictions.

Overall, the department's current deployment model, alarm assignments, and specialty team resources are aligned with community risk profiles and service demand. Ongoing evaluation of incident data, risk exposure, and response outcomes supports continuous improvement and ensures the department's ability to deliver effective, efficient, and reliable emergency services consistent with CPSE Standards of Cover principles.



EFFECTIVE RESPONSE FORCE

The Naperville Fire Department establishes an Effective Response Force (ERF) for each risk classification. The ERF is based on the minimum number of personnel required to complete the tasks needed to stabilize the incident. The essential tasks are determined from historic response data and current deployment standards. The Naperville Fire Department Incident Operations Manual clearly describes the critical tasks for each risk category. The composition of the ERF is determined by the type and complexity of the risk, taking into account factors including incident location, occupancy, and inherent threats. Where applicable, automatic or mutual aid resources are included to ensure the required operational capability is achieved in an optimal manner.

The Naperville Fire Department evaluates response time performance both on a jurisdiction-wide basis and at the individual response area level (station still districts). Response time analysis includes all major types of incidents and is conducted for each still district and for each operational shift to ensure an equitable and effective distribution of resources. Consistent with national best practices and CPSE Standards of Cover methodology, response time to emergency medical incidents is recognized as a critical factor influencing patient outcomes, particularly for life-threatening medical emergencies.

In establishing response time performance objectives for fire department units, the department considers multiple factors, including station location and spacing, access to and configuration of major transportation corridors, traffic congestion, and existing and projected community development. These factors are evaluated to ensure that deployment strategies remain aligned with evolving community risk and service demand.

To support effective resource deployment, the Naperville Fire Department has adopted a first-due emergency unit response time benchmark of six minutes for all emergency incidents the fire department responds to citywide. This benchmark requires the first-arriving emergency unit to arrive on scene within six minutes of initial notification by the Emergency Communications Center (ECC) 90 percent of the time. Upon arrival, first-due units are expected to provide the following baseline capabilities based on incident type:



- **Emergency Medical Services:** The first-due unit shall be capable of providing advanced life support (ALS) care to a patient experiencing a medical emergency.
- **Rescue Incidents (Technical Rescue/Water Rescue):** The first-due unit shall be capable of conducting an initial size-up and initiating actions to free, release, and remove a trapped or entrapped victim to a safer environment.
- **Hazardous Materials Incidents:** The first-due unit shall be capable of identifying the presence of hazardous materials and initiating defensive actions to isolate, confine, or control the release.

In addition to first-due response objectives, the department has established effective response force (ERF) performance standards for incidents requiring a concentration of resources. These ERF benchmarks are based on incident risk, operational complexity, and the tasks required to mitigate the emergency.

- **High-Risk Fire Incidents:** A minimum ERF of 26 personnel shall arrive on scene within 15 minutes of ECC notification 90 percent of the time.
- **Fire Alarms with No Clarifying Information:** An initial investigation response force (IRF) of three personnel shall arrive on scene within six minutes of ECC notification 90 percent of the time.
- **Moderate Risk EMS Incidents:** A minimum ERF of five fire personnel shall arrive on scene within 10 minutes of ECC notification 90 percent of the time and be capable of providing advanced life support care.
- **High Risk EMS Incidents:** A minimum ERF of nine fire personnel shall arrive on scene within 15 minutes of ECC notification 90 percent of the time and be capable of providing advanced life support care and scene security.
- **High Risk Technical Rescue Incidents (including Water Rescue):** A minimum ERF of 25 personnel shall arrive on scene within 20 minutes of ECC notification 90 percent of the time and be capable of performing technician-level rescue or water rescue operations.
- **High Risk Hazardous Materials Incidents:** A minimum ERF of 39 personnel shall arrive on scene within 20 minutes of ECC notification 90 percent of the time and be capable of initiating technician-level mitigation operations.



The Naperville Fire Department maintains the ability to retrieve and analyze detailed performance data for all components of the response time continuum, including call handling, turnout, travel, and total response time. This data may be evaluated at the department level or analyzed by individual station, still district, and shift, with historical data available for a five-year period. The department also evaluates ERF performance for confirmed structure fires, critical EMS incidents, and specialty responses, including technical rescue, hazardous materials, and water rescue, recognizing that these incidents occur less frequently.

Performance data is evaluated for potential outliers by comparing each value to the overall distribution of response times for its corresponding ERF. Any record whose response time exceeds two standard deviations above or below the mean for that specific ERF is classified as an outlier. This statistical threshold helps identify values that deviate substantially from typical performance and are likely to result from anomalies such as units forgetting to update their status on the Mobile Data Terminal (MDT).

All performance data that is identified as an outlier is excluded from subsequent calculations and analyses. Removing these extreme values ensures that summary statistics, including averages and performance metrics, more accurately reflect normal responses and are not disproportionately influenced by atypical observations. This approach improves the reliability and interpretability of the Naperville Fire Department's performance data.

Performance data analysis has led to operational and technological improvements when adverse trends were identified. Recently, incremental increases in travel time have been observed, largely attributed to population growth and increased traffic congestion. To better understand and manage these trends, the department has implemented enhancements within its records management system to track travel time delays for further analysis. In 2019, the department also implemented the Purvis alerting system to automate dispatching, improve turnout time tracking through station turnout clocks, and provide redundant alerting capabilities. The department is analyzing unit utilization times and projected development to be more predictive to changes in travel times.



CURRENT DEPLOYMENT AND PERFORMANCE (FIRE SUPPRESSION)

The Naperville Fire Department has completed a critical task analysis for each response type and risk level, identifying the essential tasks required to safely mitigate incidents. The department also monitors the performance of each response zone for emergency incidents and continually strives to meet established benchmark standards. When performance gaps are identified, necessary adjustments are made to ensure appropriate response coverage.

Critical task analyses for fire risk are based on Naperville Fire Department General Orders 2.1.0 Hazard Classification Response, 2.2.0 Engine Company Duties, 2.3.0 Truck Company Duties, 2.4.0 Squad Company Duties, and 2.6.0 Company Officer Duties. These general orders outline the responsibilities of first-due suppression companies and company officers. These General Orders are reviewed annually to ensure continued relevance and are updated as necessary to reflect departmental changes.

Low Risk (Single Engine) – Small structures and properties of average size or smaller, generally less than 5,000 square feet or where the potential for life loss is low, has limited potential for fire spread, and the financial impact to the community is minimal. The required fire flow for these structures can be accomplished by a single vehicle at 1500 GPM or less. Automatic fire alarm responses to these properties without clarifying information would typically get a single engine response.

Examples: Out buildings, sheds, recreational equipment, open land, single family dwellings, free standing commercial properties including gas stations and single-story.

Low Risk (Single Engine)	
Command/Safety	1
Pump Operator	1
Attack Line	1
Total	3

Response Time < 6:00
1st Arriving Unit





Moderate Risk (Dual Response) – Incidents that may otherwise be considered Low Risk, involving a roadway, increasing the risk to responders. Includes incidents that have the potential to produce a higher risk level; initial reports lack visible fire or other escalating measures. Areas that have a potential for fire spread, and the financial impact to the community is low. The required fire flow for these incidents may exceed the capabilities of a single vehicle, ranging from 1,500 GPM to 5,000 GPM.

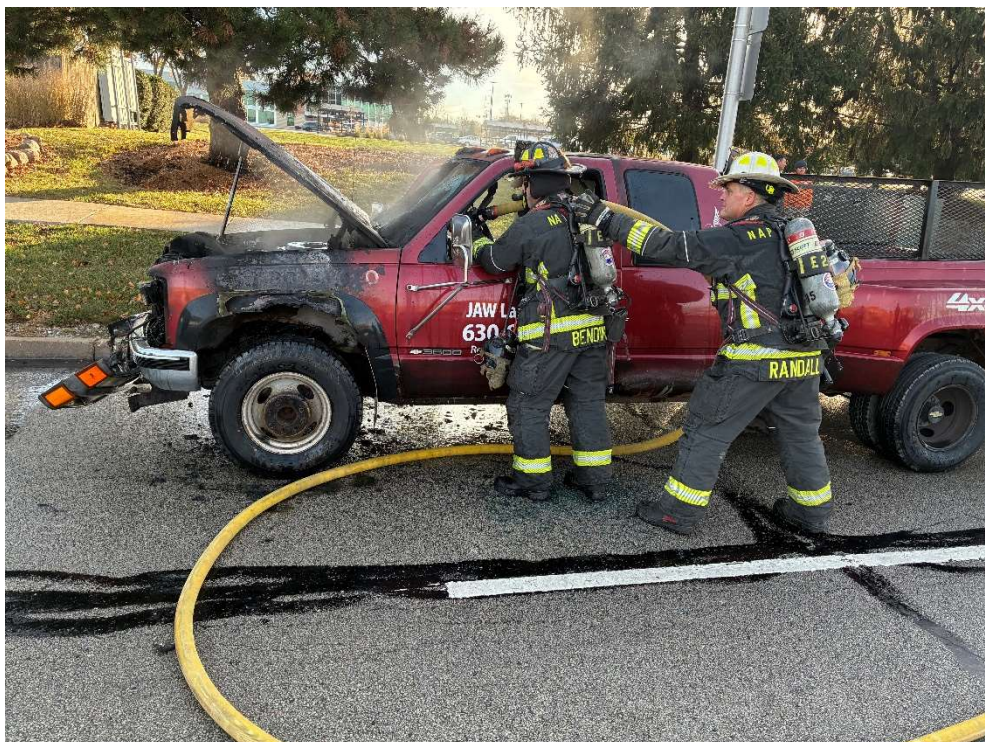
Examples: Vehicle fires greater than ten feet from a structure, natural gas leak inside, and odor investigation inside.

ERF 3 < 6:00
3rd Crew Member



Moderate Risk (Dual Response)

Command/Safety	1
Pump Operator	1
Attack Line	2
Ventilation/Search/Blocking	2
Total	6





High Risk (Dual Response) – Structures and properties of major size, exceeding 15,000 square feet, where the potential for life loss is great, exceeding 500 people, has great potential for fire spread, and would have a major economic impact on the community.

The needed fire flow for these structures would need multiple water supplies and would require in excess of 5,000 GPM. Automatic fire alarms without hazards identified would typically generate a dual response level.

Examples: Structures less than four stories, multi-family buildings of more than ten units, hotels/motels, theaters, lumber storage facilities, large churches, shopping malls, large public assembly occupancies, large warehouse/storage facilities, manufacturing /research facilities, and automobile dealerships.

ERF 3 < 6:00
3rd Crew Member



High Risk (Dual Response)

Command/Safety	1
Pump Operator	1
Attack Line	2
Ventilation/Search/Blocking	2
Total	6





High Risk (Full Still) – Specific incidents which historically pose greater risk to the community and responders but do not require a general alarm response initially.

Examples: Chimney fires, appliance fires, inside natural gas leaks, and inside smoke investigations.

ERF 13 < 15:00
13th Crew Member



High Risk (Full Still)

Command	1
Safety	1
Pump Operator	1
Attack Line	2
EMS Support	2
Search/Rescue	3
Water Supply	1
Ventilation/Utilities	2
Total	13





High Risk (General Alarm) – Incidents that, based on historical data, hazard analysis, and operational experience, present a significant and immediate threat to life safety, property, or the environment. This includes incidents that carry an increased risk of injury or death to fire department personnel. These incidents require early establishment of Incident Command, strict adherence to ICS principles, continuous risk–benefit evaluation, and a readiness to rapidly escalate to additional alarms, specialized resources, and expanded command and safety functions as the incident develops.

Examples: Incidents involving confirmed fire involvement with any risk group

ERF 3 < 6:00
3rd Crew Member



ERF 13 < 15:00
13th Crew Member



ERF 24 < 20:00
24th Crew Member



High Risk Fire Suppression

Command	1
Safety	1
Pump Operator	1
Attack Line	2
Back Up Line	3
EMS Support	2
Search/Rescue	6
Water Supply	1
RIC	5
Ventilation/Utilities	4
Total	26



CURRENT DEPLOYMENT AND PERFORMANCE (EMS)

Low Risk – Low-risk EMS responses generally are non-emergent in need, and typically are classified as citizen or lift assists, which usually do not require transport to a comprehensive hospital. If needs dictate, the call may be upgraded at any time. Calls for basic life support needs will generally receive a still district response from a medic company. This complement meets the needs of the call by delivering 2 trained members to assist with the variety of needs on any BLS call for service. Critical tasking for EMS responses is based on Naperville General Orders 3.2.0, 3.3.0, and Edward Hospital EMS protocol and Region 8 Standing Medical orders.

Response Time < 6:00
1st Arriving Unit

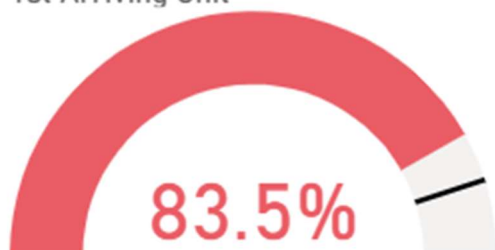


Low Risk

Command/Safety	1
ALS Patient Care	1
Total	2

Moderate Risk – Calls for advanced life support needs will generally receive a still district response of a medic company and suppression vehicle. This complement meets the needs of the call by delivering 5 trained members to assist with the variety of needs on any ALS call for service. If needs dictate, the call may be upgraded at any time. Critical tasking for EMS responses is based on Naperville General Orders 3.2.0, 3.3.0, and Edward Hospital EMS protocol and Region 8 Standing Medical orders.

Response Time < 6:00
1st Arriving Unit



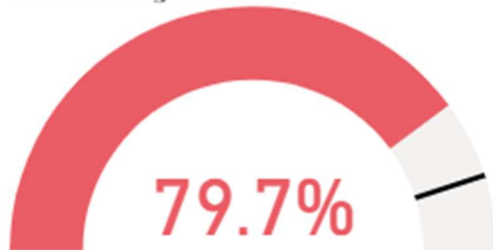
Moderate Risk

Command/Safety	1
Primary Medical Care	1
Cardiac Monitor	1
IV/IO/IM and Medication	1
Airway and Patient movement	1
Total	5



High Risk – Incidents that pose an increased risk to responders and patients receive nine personnel to mitigate the incident. Calls that take place on the roadway are one example of the increased personnel need due to the elevated risk an active roadway poses. If needs dictate, additional resources may be requested at any time. Critical tasking for EMS responses is based on Naperville General Orders 3.2.0, 3.3.0, and Edward Hospital EMS protocol and Region 8 Standing Medical orders.

Response Time < 6:00
1st Arriving Unit



High Risk

Command	1
Safety	1
Primary Medical Care	1
Cardiac Monitor	1
IV/IO/IM and Medication	1
Airway and Patient movement	1
Responder Safety/Blocking	3
Total	9

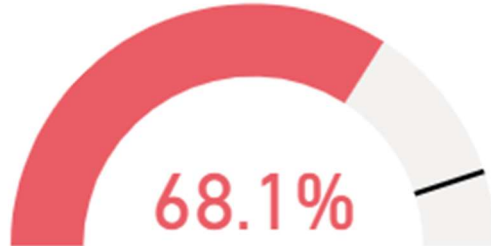




CURRENT DEPLOYMENT AND PERFORMANCE (TECHNICAL RESCUE)

Low Risk – Low-risk Technical rescue events generally involve incidents such as elevator alarms, where operations can be handled by the first arriving suppression unit with limited technical expertise. Critical tasking is based on the technical rescue and water rescue specific Standard operating procedures.

ERF 3 < 6:00
3rd Crew Member



Low Risk

Command/Safety	1
Tools and Equipment	1
Extrication	1
Total	3

Moderate Risk – A Special Rescue Response is utilized for incidents that involve moderate risk categories, which may include Trench rescue, Swift water, surface ice rescue, extrication from a vehicle or machinery, and confined space. Critical tasking is based on the technical rescue and water rescue specific Standard operating procedures.

ERF 13 < 15:00
13th Crew Member



Moderate Risk

Command	1
Safety	1
Tools and Equipment	1
Extrication / Water Operations	4
Technical Support / Shore Support	4
Medical Transport	2
Rehabilitaion	2
Total	15



High Risk – A Special Rescue Response with a Box alarm level is utilized for incidents that involve complex technical events and expertise. These may include Trench rescue, High-angle, collapse, confined space, water, or ice rescues. Critical tasking is based on the technical rescue and water rescue specific Standard operating procedures.

Note: Incident count for 2025 fell below 10, making the data statistically insignificant.

High Risk	
Command	1
Safety	1
Tools and Equipment	2
Extrication / Water Operations	8
Technical Support / Shore Support	8
Rehabilitation	2
Medical Transport	2
Technical Expert	1
Total	25





CURRENT DEPLOYMENT AND PERFORMANCE (HAZARDOUS MATERIALS)

Low Risk – Hazardous Materials incidents that are classified as low-risk can vary from minor fuel spills, propane or natural gas leaks, carbon monoxide incidents, and small Mercury spills. Low-risk responses can be mitigated by on-duty Naperville resources. While it may necessitate the call out of specialized hazardous materials equipment, it does not require a special response or MABAS Team response.

ERF 3 < 6:00
3rd Crew Member



Low Risk

Command/Safety	1
Haz Mat Operations	2
Total	3

Moderate Risk – A Special Rescue Response is utilized for incidents that involve a single hazardous material that is identified, all hazards are known, the cause of the release is identified, and responders have the tools to control the problem. In addition, the Supervisor on scene must be confident that the leak can be resolved with a single entry, and the team has unencumbered and direct access to the leak or building.

Note: Incident count for 2025 fell below 10, making the data statistically insignificant.

Moderate Risk

Command	1
Safety	1
Investigation	3
Haz Mat Operations	6
Medical Transport	2
Rehabilitation	2
Perimeter Control	3
Decontamination	9
Total	27



High Risk – A Special Rescue Response with a 2nd Box alarm level is utilized for incidents that involve multiple hazardous materials that are unidentified and not all hazards are known. In addition, the cause of the release will require reconnaissance, and responders do not have the tools immediately available to control the problem. It can also involve calls where multiple entries will need to be made, involves a dynamic or complex hot zone, or on-duty HazMat technician staffing is below six. Additional support personnel may be requested beyond the critical resources noted.

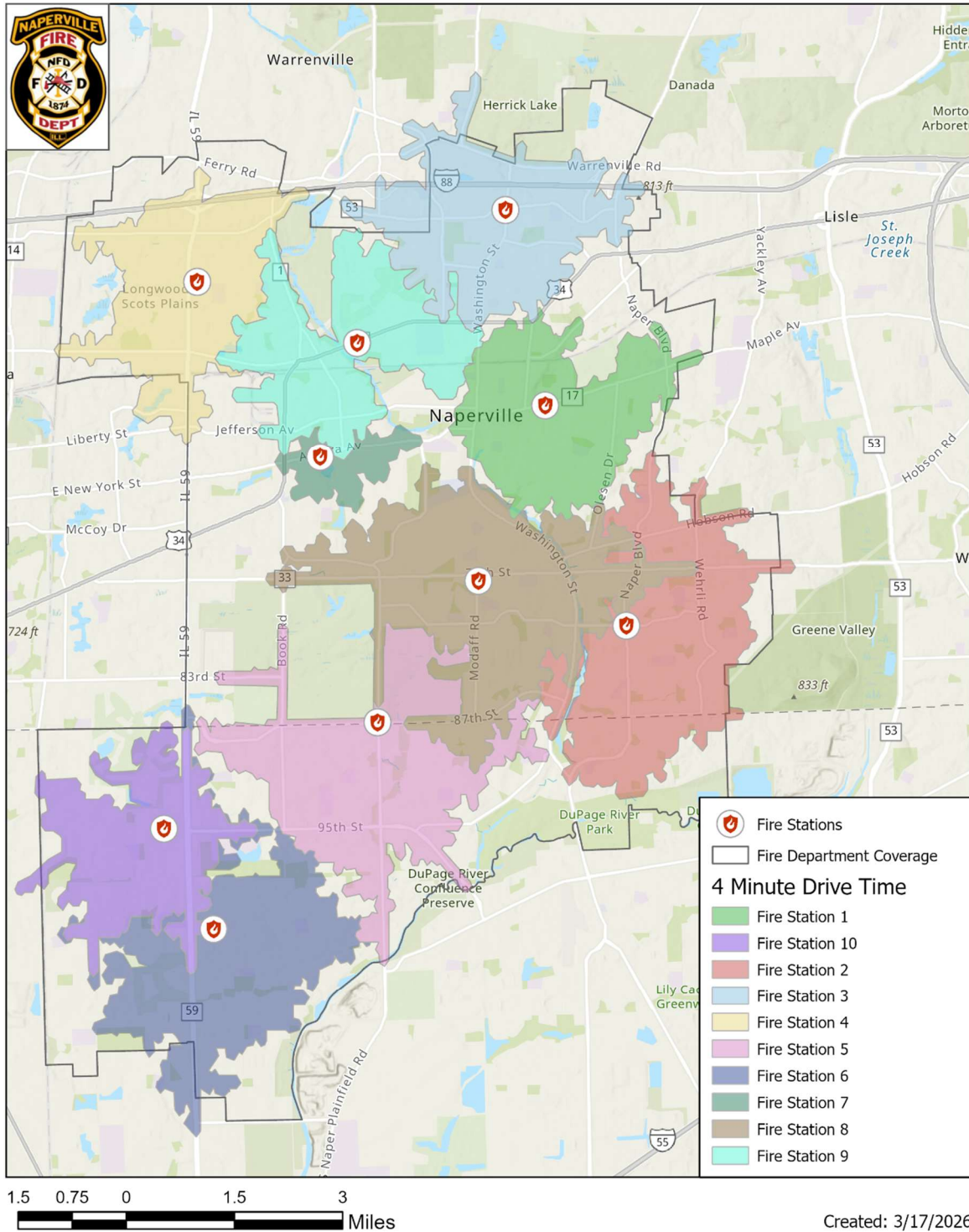
High Risk	
Command	1
Safety	1
Investigation	3
Haz Mat Operations	6
Medical Transport	2
Rehabilitation	2
Perimeter Control	3
Decontamination	9
Support Operations	12
Total	39

Note: Incident count for 2025 fell below 10, making the data statistically insignificant.



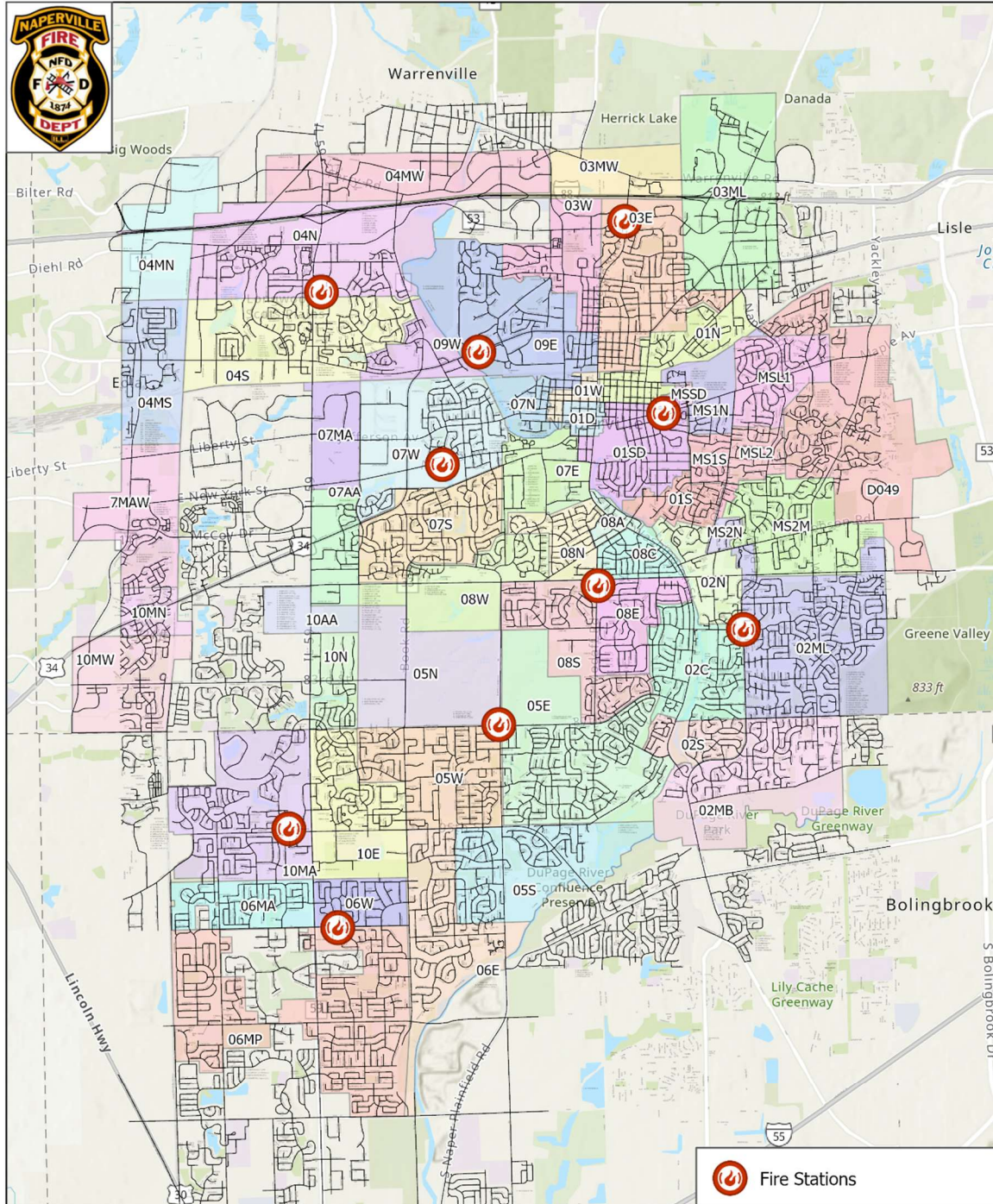


Deployment and Performance





Fire Department Geoproximity



1.5 0.75 0 1.5 3 Miles

Created: 3/17/2026

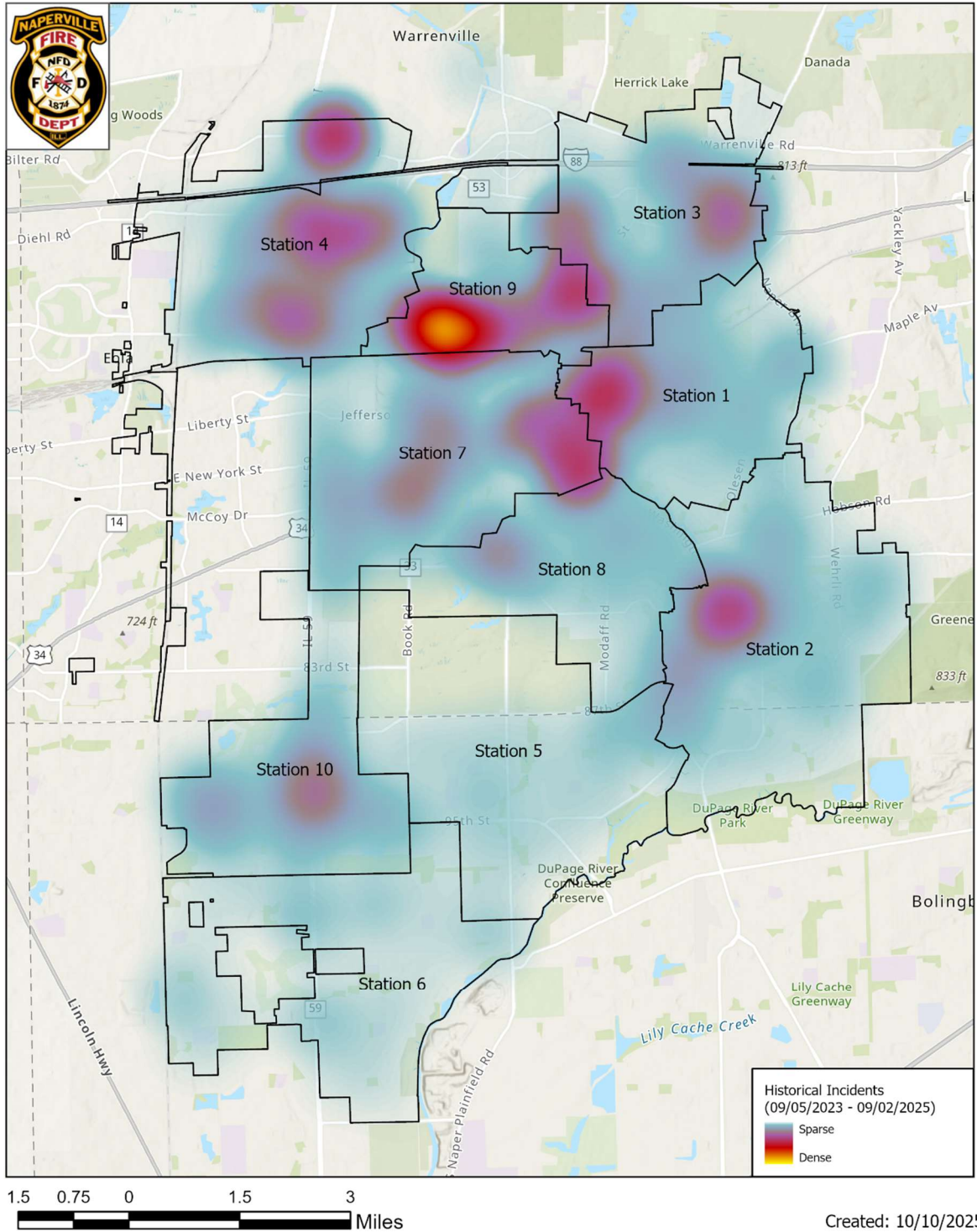
1.5 0.75 0 1.5 3 Miles

Created: 10/10/2025



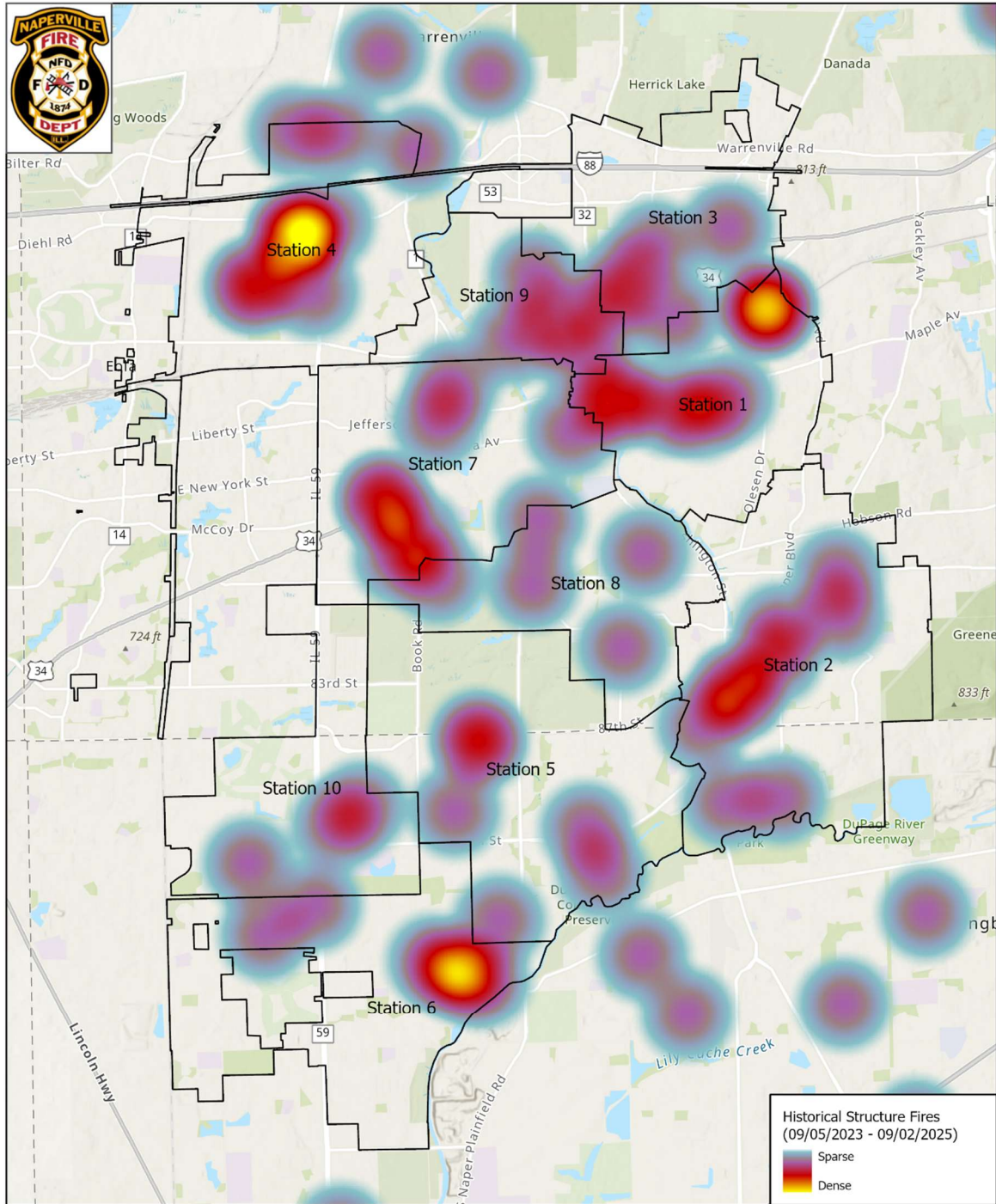
HISTORICAL RISK CONCENTRATION

Historical Incident Map





Historical Structure Fire Map



1.5 0.75 0 1.5 3 Miles

Created: 10/15/2025



RESPONSE TIME ANALYSIS

The Naperville Fire Department has established benchmark performance objectives for fire suppression, emergency medical, technical rescue, and hazardous materials incidents. The performance objectives are based on the analysis of historical response data, community risk, and predictive modeling. Total response time is defined as the cumulative duration of call handling, turnout, and travel times for the first-arriving unit. The department has identified the following time components as its performance objectives for first-due emergency responses: call handling time of 30 seconds, turnout time of 90 seconds, and travel time of 240 seconds, resulting in a total response time benchmark of 360 seconds (six minutes).

This six-minute total response time benchmark is applied to first-arriving emergency units and serves as the department's performance goal for 90 percent of incidents. Over the past two years, the department has consistently achieved a total response time of approximately six minutes for first-due units in approximately 76 percent of emergency incidents. While this performance continues to demonstrate a high level of service reliability, the department will continue to evaluate system performance, deployment strategies, and resource distribution to strive for response outcomes in the 90th percentile.

2024 Overall Response

Response Time < 6:00
1st Arriving Unit



07:07

Response Time - 90th
Percentile

2025 Overall Response

Response Time < 6:00
1st Arriving Unit



07:51

Response Time - 90th
Percentile



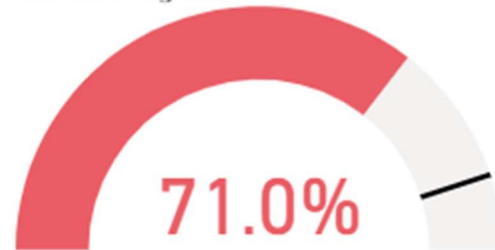
STILL DISTRICT RESPONSE TIME ANALYSIS

The Naperville Fire Department is committed to the ongoing evaluation and prioritization of effective resource distribution. The department ensures that first-due resources for all-risk responses are strategically and geographically positioned to support rapid deployment. The result minimizes response times and mitigates the impact of routine emergencies.

Still District 1:



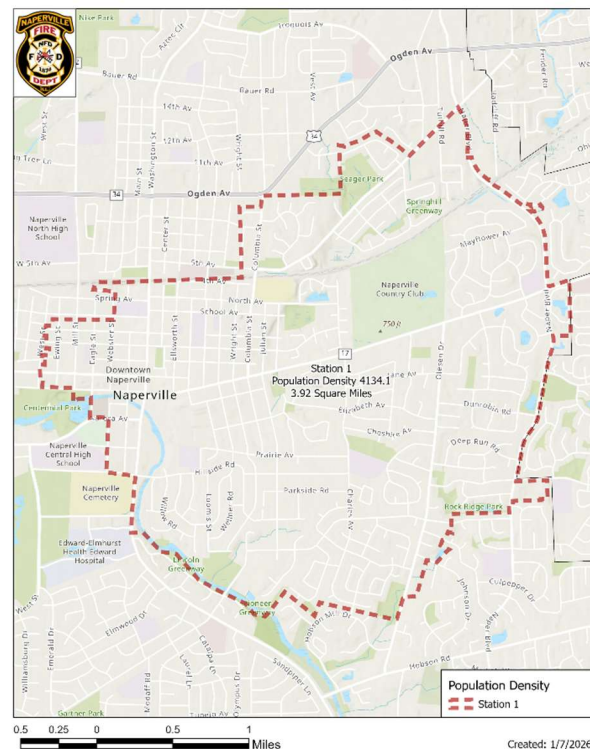
Response Time < 6:00
1st Arriving Unit



Fire Station 1 is located on Chicago Avenue, centrally located in the City of Naperville.

The still district is characterized by dense commercial development and a wide variety of restaurants. The downtown area also supports a vibrant nightlife, while also including nearby residential areas. The district covers six schools and is the initial responding company for the North Central College Campus. Station 1 covers a large portion of the BNSF railway. The station responds to a population of approximately 16,250 people over 3.92 square miles. The still district serves several nursing homes, making it a vital resource for both community living and specialized care facilities.

Population Density





Still District 2:

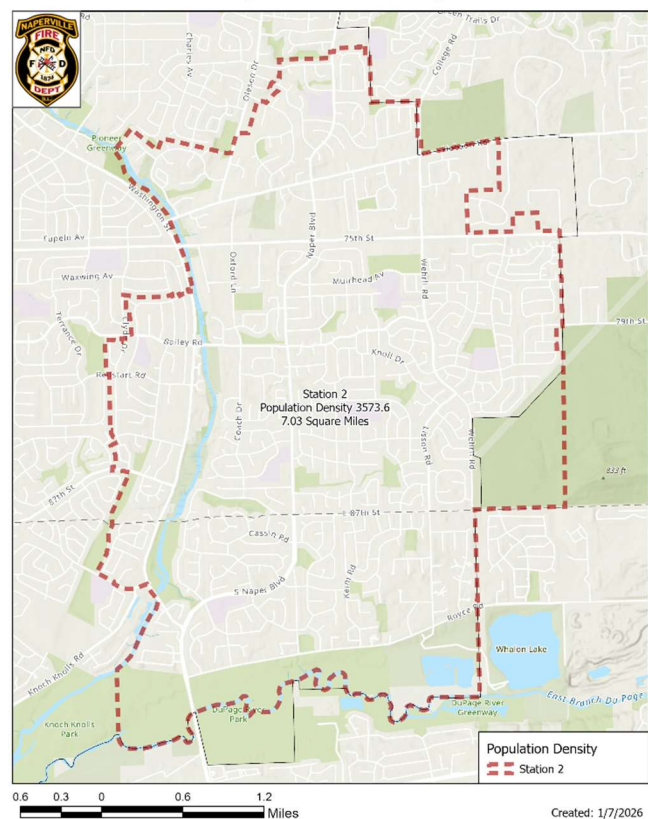


Response Time < 6:00
1st Arriving Unit



Fire Station 2, built in 1977, plays a vital role in protecting a predominantly residential district made up largely of single-family homes. The station serves a population of approximately 25,370 residents across a 7.03 square mile coverage area. In addition to residential response, Fire Station 2 is responsible for the safety of six schools, where rapid response is critical for student and staff well-being, as well as one nursing home that requires specialized emergency care. Still District 2 is home to what firefighters call the “spaghetti bowl.” This references the winding streets of the district, adding difficulty to response.

Population Density

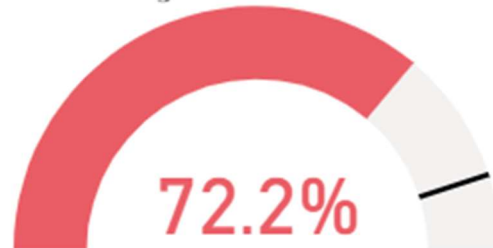




Still District 3:

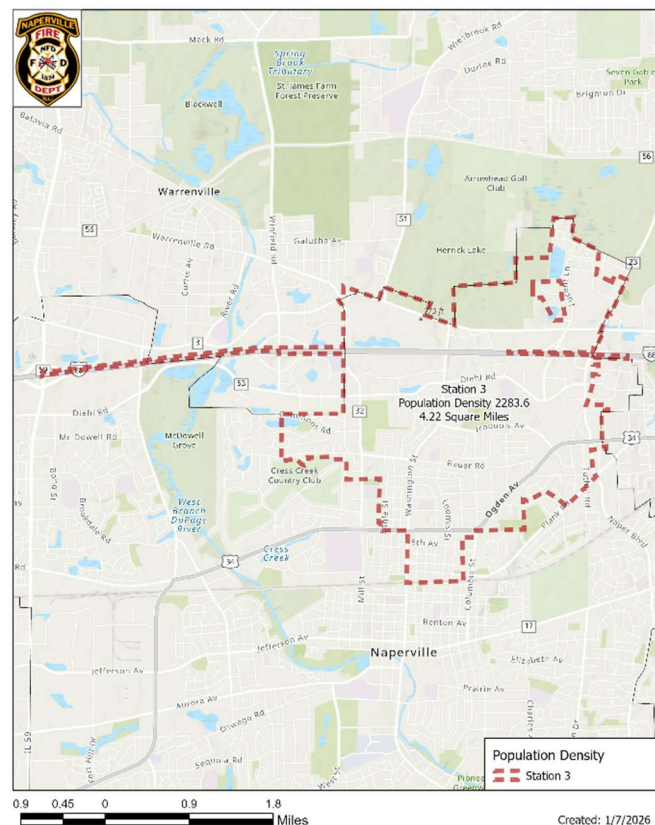


Response Time < 6:00
1st Arriving Unit



Fire Station 3, located on the northeast side of the city, was built in 1983 and serves a portion of the Ronald Reagan tollway. The station covers approximately 4.22 square miles and is the first unit serving a population of 9,129 residents. Its response district includes three schools and three nursing homes, requiring readiness for both educational environments and specialized medical care. In addition to serving its local community, Station 3 plays a critical regional role as the first auto-aid asset responding to the MABAS partner, the Warrenville Fire Protection District. This strengthens interagency cooperation and enhances emergency response capabilities beyond city limits.

Population Density





Still District 4:

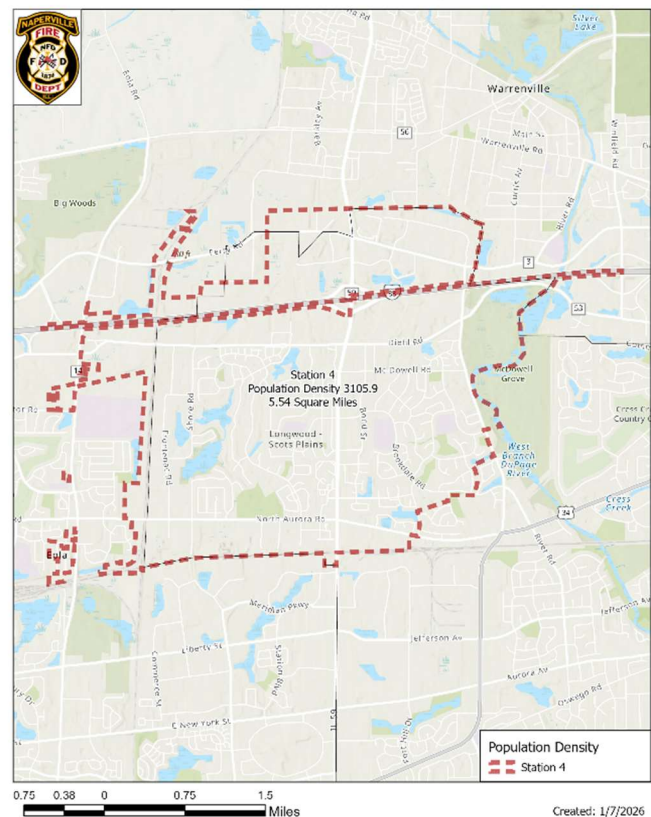


Response Time < 6:00
1st Arriving Unit



Fire Station 4 serves as a key specialized and operational hub within the department, housing the Naperville Hazardous Materials Team and a dedicated hazardous materials response vehicle. The station's grounds also include the department's training tower, providing a critical facility for ongoing firefighter training and preparedness. Station 4 protects a population of approximately 17,136 residents across a 5.54 square mile area. The response area includes a mix of commercial and industrial properties. Station 4 has varied response demands serving three schools and four nursing homes. In addition, Station 4 responds to a broad spectrum of housing types, from low-income apartments to single-family homes. The variety of response areas requires a high level of readiness for both routine emergencies and complex, high-risk incidents.

Population Density

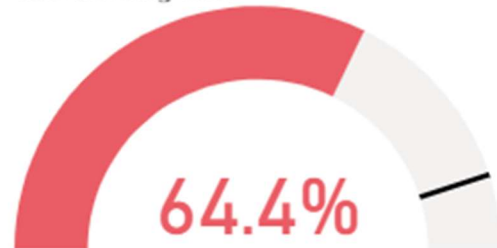




Still District 5:

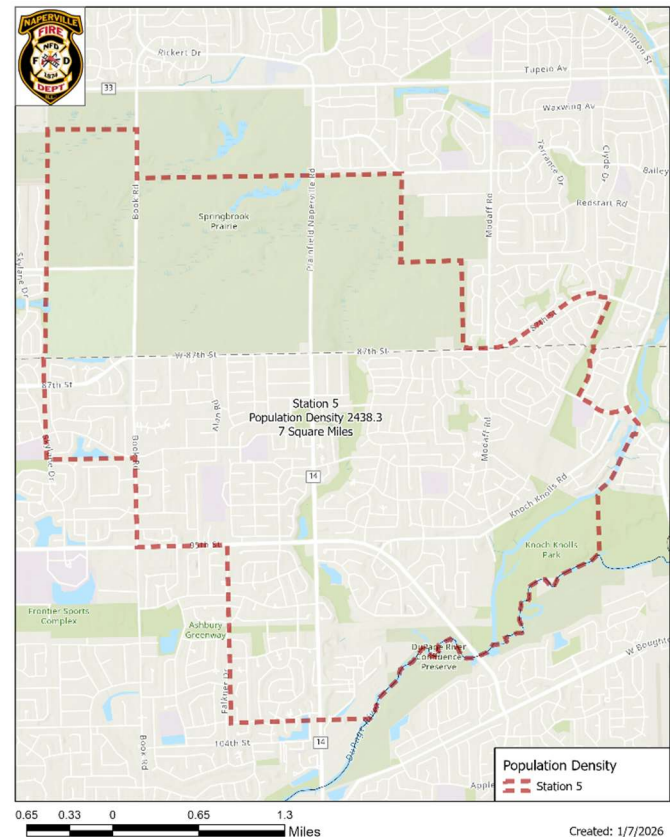


Response Time < 6:00
1st Arriving Unit



Fire Station 5 serves a population of approximately 17,300 residents and supports four schools within its response district. The station's area includes a forest preserve and a prairie path. This creates unique response challenges related to outdoor recreation and wildland environments. Due to the extensive prairie land in the district, Station 5 houses the department's brush vehicle. The specialty nature of the brush vehicle response ensures preparedness for grass and brush fires. The station is also home to Battalion 2, adding an important command and coordination function. In addition, Station 5 covers areas in both DuPage and Will Counties, extending its operational reach across county boundaries.

Population Density

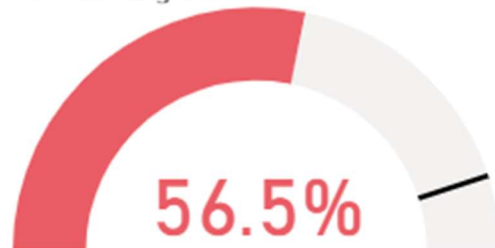




Still District 6:

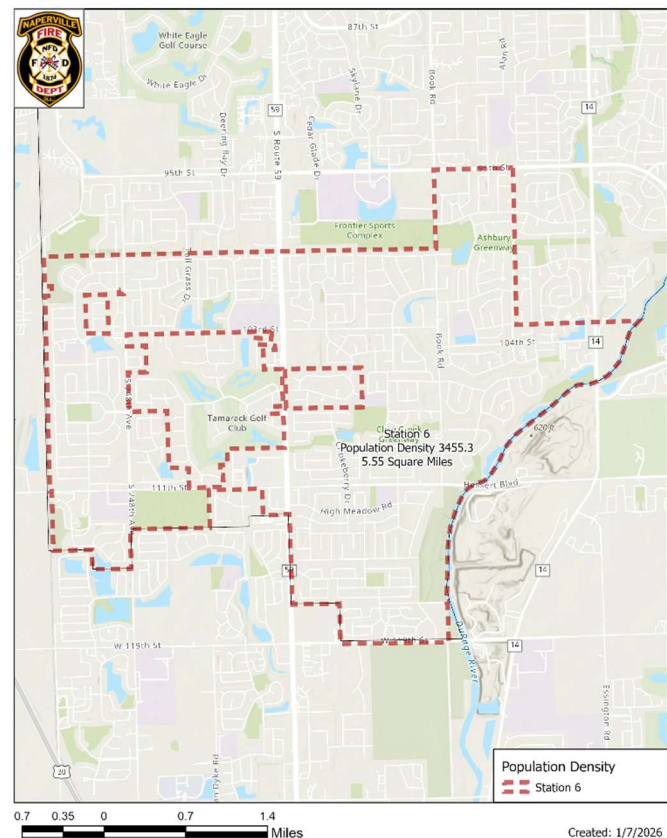


Response Time < 6:00
1st Arriving Unit



Fire Station 6, built in 1993, is the southernmost station in the city and serves the second-largest residential population. The station protects approximately 19,764 residents across a 5.55 square mile response area. Its district includes seven schools, requiring a strong focus on rapid response and life safety planning. Station 6 also serves non-hydranted county areas, presenting additional operational challenges related to water supply. Still District 6 has several affluent residential neighborhoods featuring large homes exceeding 7,000 square feet. These diverse conditions require a high level of preparedness and adaptability from personnel assigned to the station.

Population Density

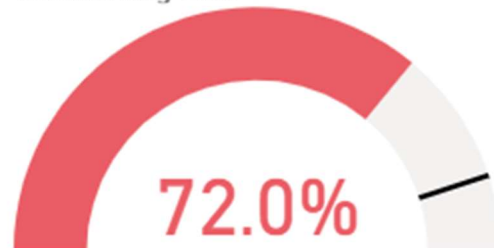




Still District 7:

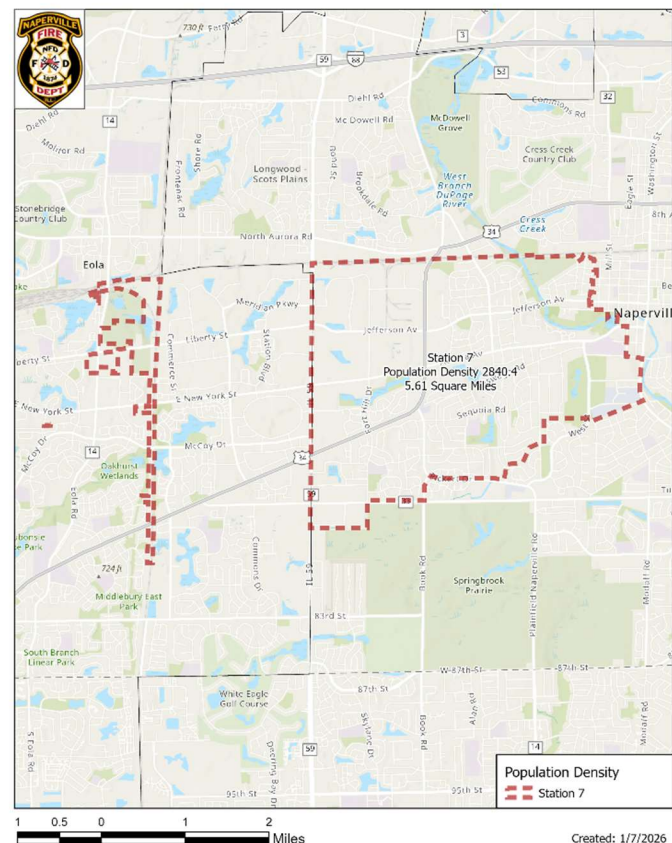


Response Time < 6:00
1st Arriving Unit



Fire Station 7 was built in 1992 and is attached to the Fire Administration building. The station is home to the department's water rescue team and the specialized water rescue response unit. This provides a critical response for water-related emergencies. Station 7 serves a population of approximately 15,996 residents across a 5.61-square-mile area that includes four schools and three nursing homes. In addition to residential and institutional coverage, the station protects major commercial and recreational facilities, including the Mondelez food production plant and the Naperville Park District's Centennial Beach swimming complex, requiring a high level of preparedness for both industrial and public assembly incidents.

Population Density

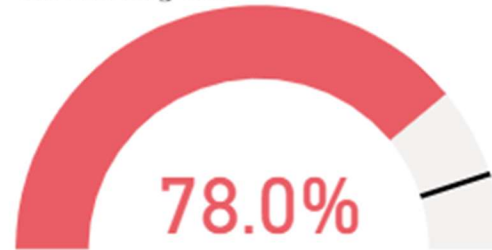




Still District 8:

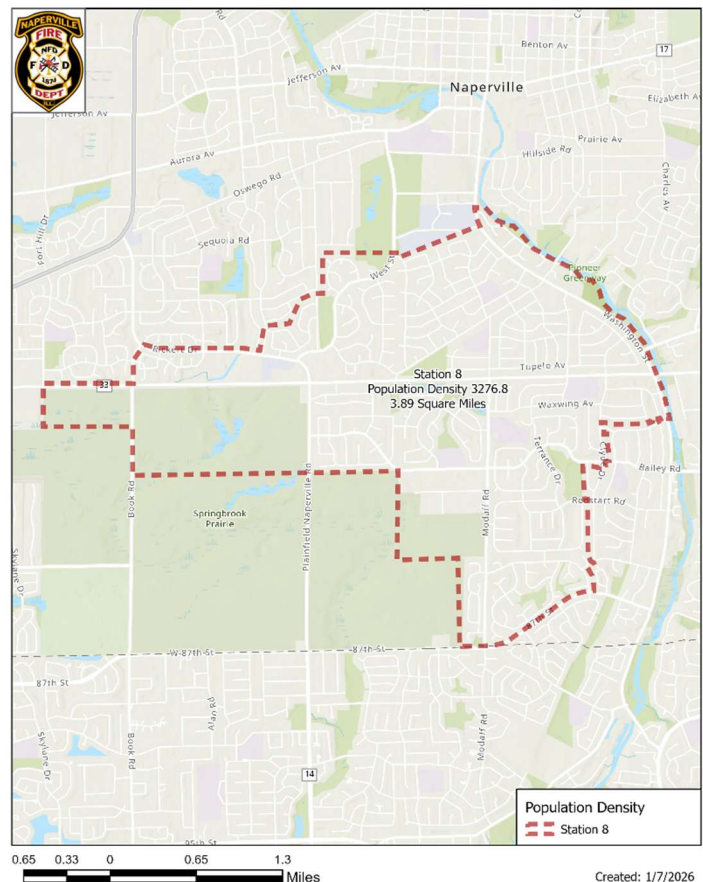


Response Time < 6:00
1st Arriving Unit



Fire Station 8 was built in 2001 and is designed to blend seamlessly into the surrounding neighborhood. The station was built to resemble a single-family dwelling. Station 8 serves a population of approximately 12,805 residents within a 3.89-square-mile response area. The district includes five schools, with the majority of the district being single-family residences. As the most centrally located station in the city, Station 8 plays a key role in citywide response and coverage. It also houses one of the city's two squad units, providing advanced rescue capabilities, responding to all areas of the city as part of the ERF.

Population Density

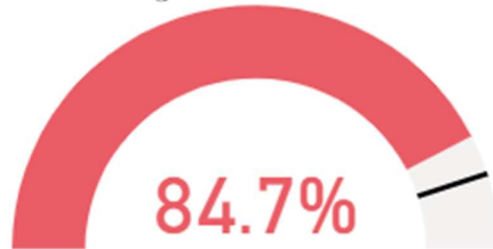




Still District 9:

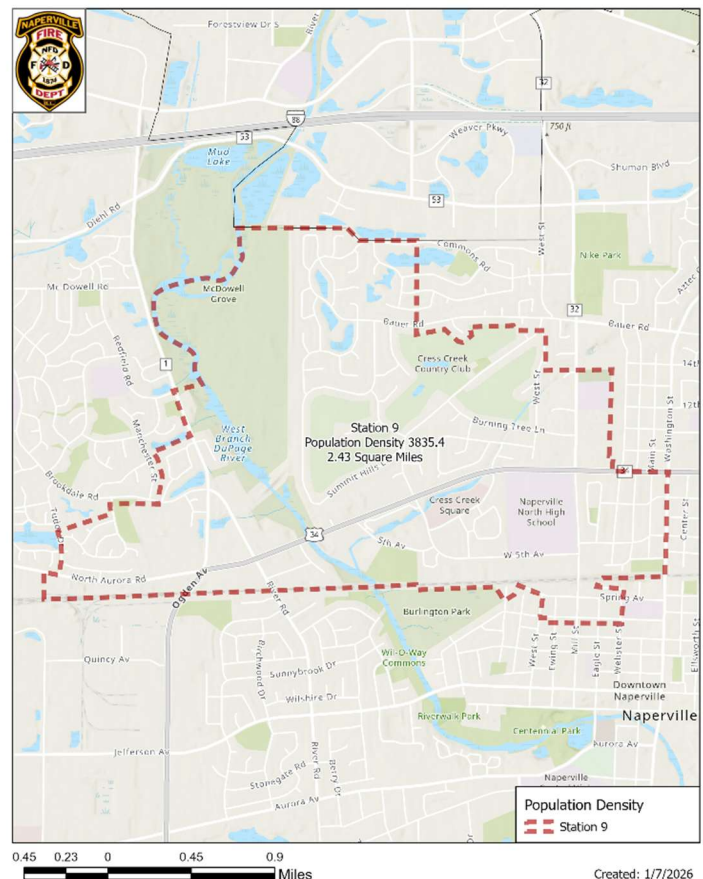


Response Time < 6:00
1st Arriving Unit



Built in 2006, Fire Station 9 serves as a critical specialized response facility within the department. The station houses the technical rescue team and its dedicated technical rescue unit. The primary response vehicle is the north side squad company, providing advanced rescue and support capabilities. Station 9's response district includes two schools and five nursing homes, requiring consistent readiness for both educational and medical care environments. In addition to these responsibilities, the station protects a significant portion of the BNSF railway and responds as part of the ERF for incidents occurring on the Ronald Reagan Tollway, giving it a vital role in the transportation corridors and large-scale incident response.

Population Density

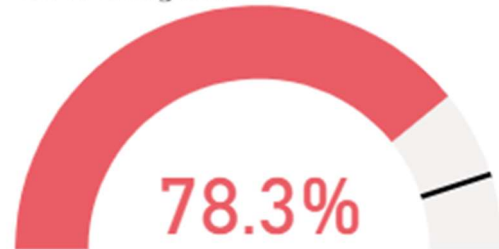




Still District 10:

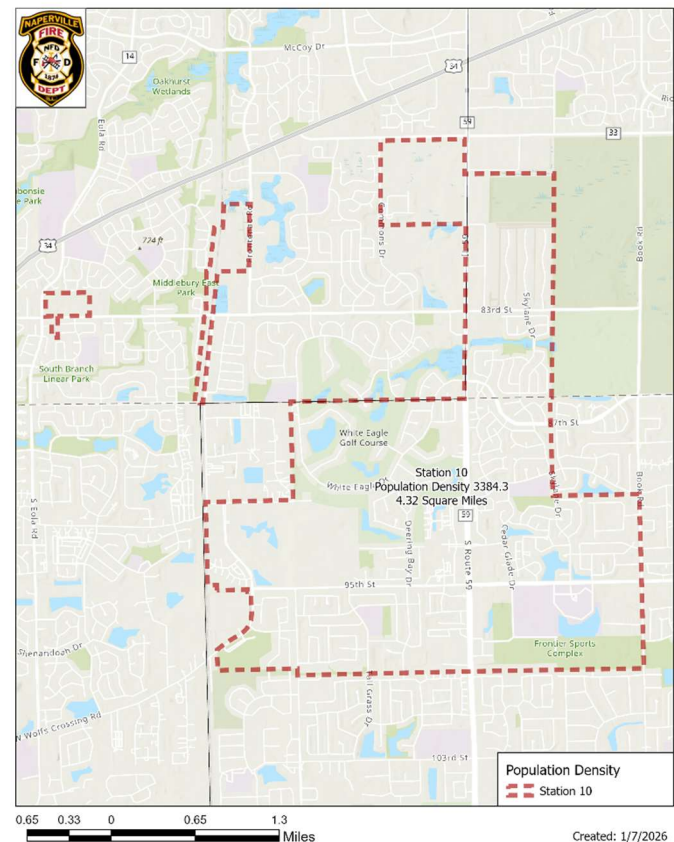


Response Time < 6:00
1st Arriving Unit



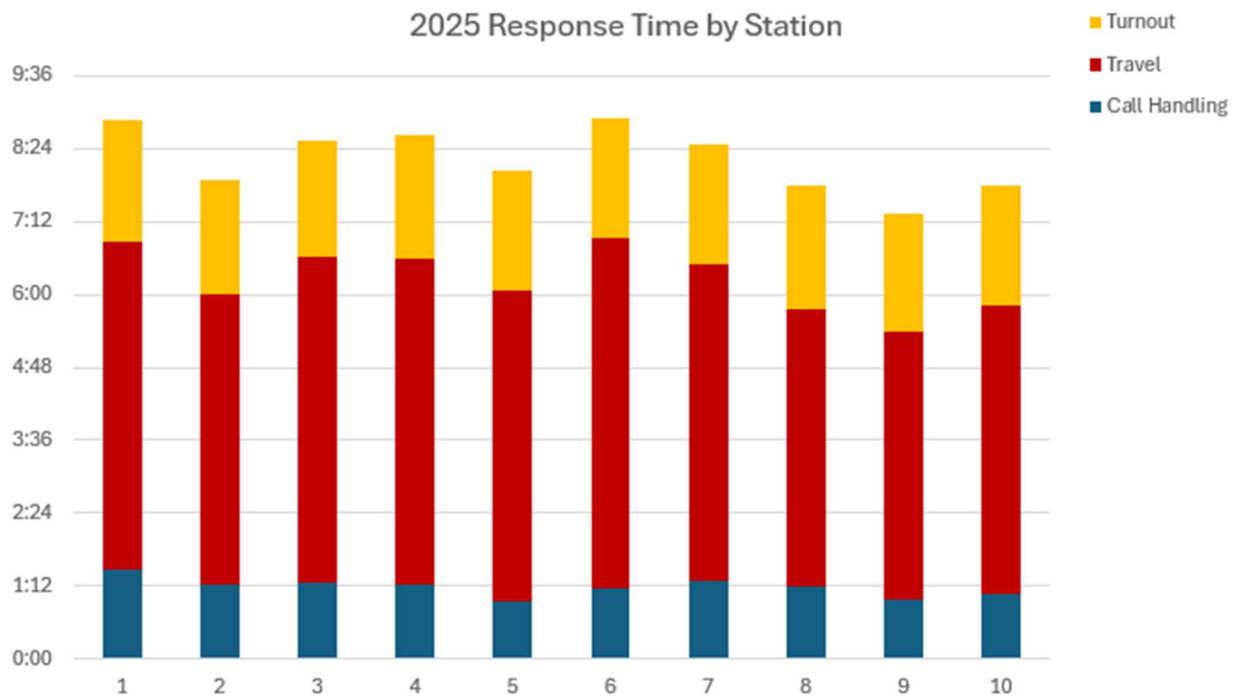
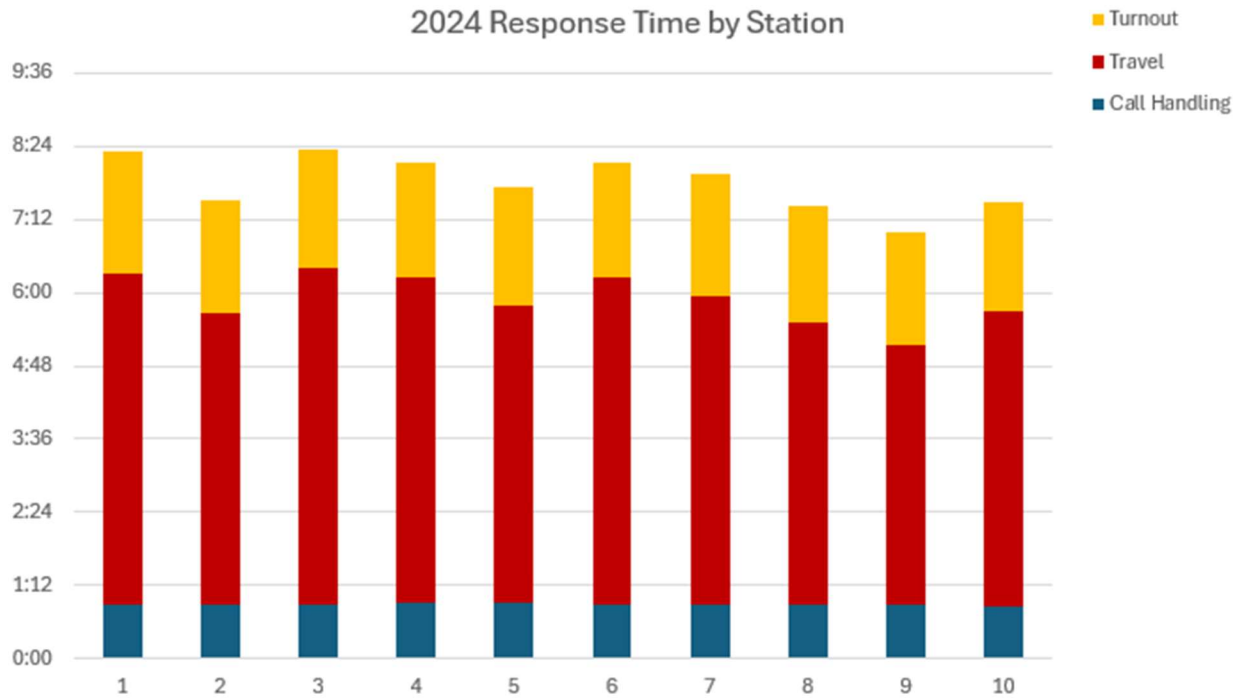
Fire Station 10, built in 2010, is the newest fire station in the city and serves a population of approximately 14,820 residents. The station covers a 4.32-square-mile response area of mixed residential and small commercial. In addition, Station 10 serves three schools and two nursing homes, requiring a strong focus on life safety and community risk reduction. Station 10 houses the south side truck company, providing rescue capabilities citywide. Its strategic location along State Route 59 allows for rapid northbound response, enhancing overall system efficiency and improving response times throughout the district.

Population Density



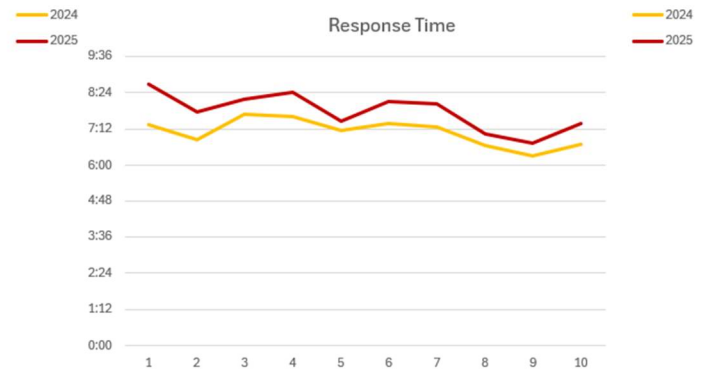
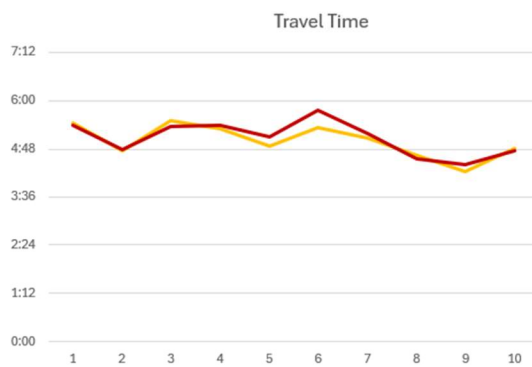
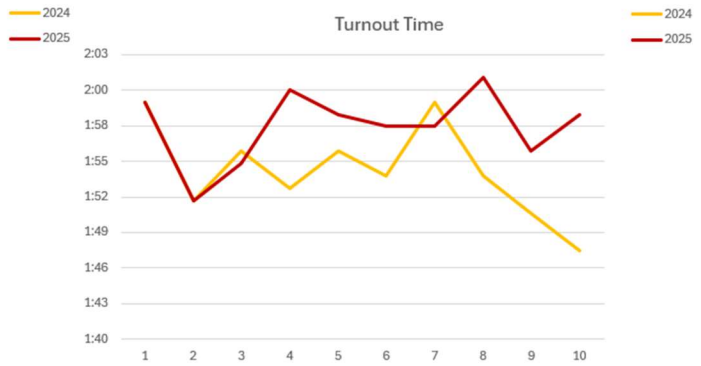
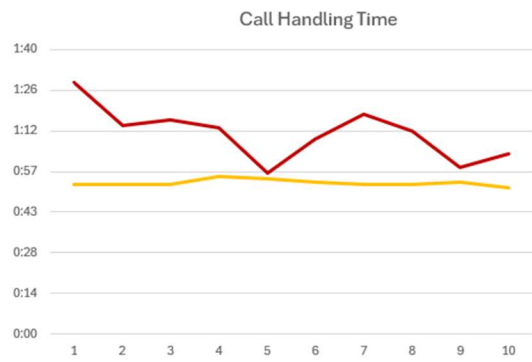


EVALUATION OF DEPLOYMENT AND PERFORMANCE



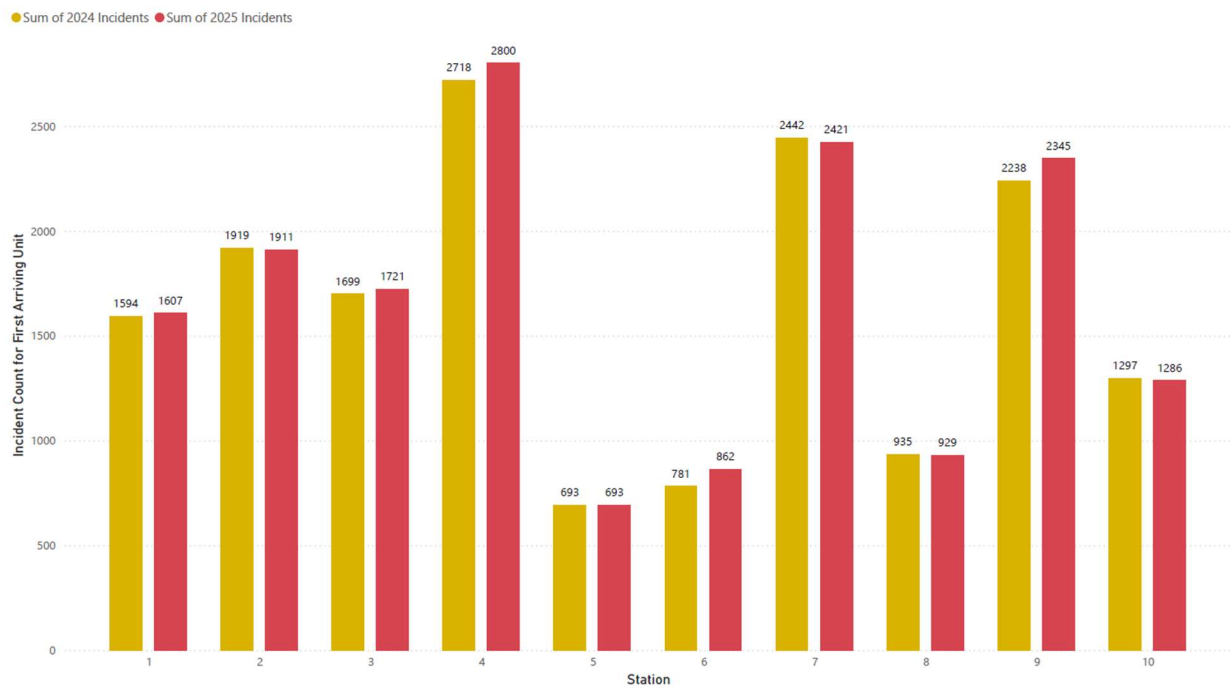


CRA-SOC

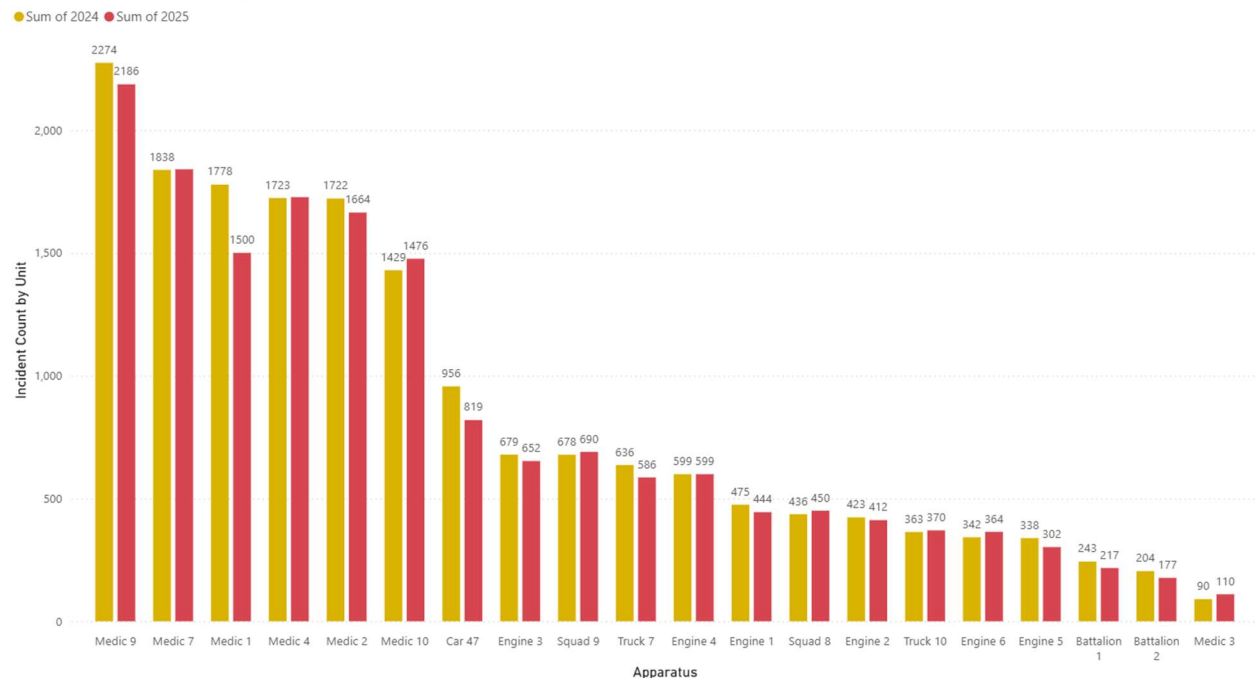




2024-2025 Incident Count Comparison:



The incident count referenced above pertains specifically to calls that necessitated an emergency response in which at least one unit successfully arrived on the scene. This count excludes any calls that were cancelled before units reached the location, ensuring that only incidents with an active, on-scene response are reflected.

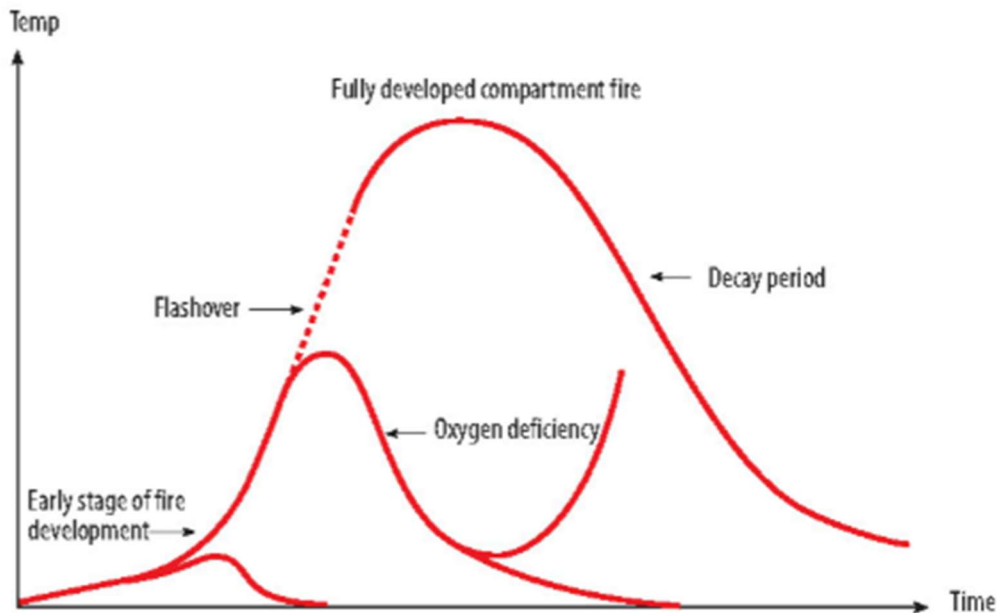




TIME TEMPERATURE CURVE

Fire Department leadership recognizes that timely response to incidents is a critical determinant of successful outcomes in both fire and medical emergencies. In establishing response time objectives for fire and ambulance units, the department carefully considers multiple factors, including the geographic distribution of stations, accessibility and spacing of primary roadways, and both current and projected patterns of property development. These objectives are guided by empirical research on fire dynamics and medical emergencies. For instance, studies of fire progression illustrate the “time-temperature curve,” which shows that ordinary combustibles materials can reach flashover—the stage at which a fire becomes fully developed—within six to ten minutes of entering the free-burning phase, when temperatures may reach approximately 1,100 degrees Fahrenheit. By integrating this data into the department’s standard of cover, the department ensures that response time standards are grounded in science.

Figure 1



Note: The picture was obtained from the CTIF International Association of Fire and Rescue Services. (Bengtsson, 2014)



ADVANCED CARDIAC RESUSCITATION

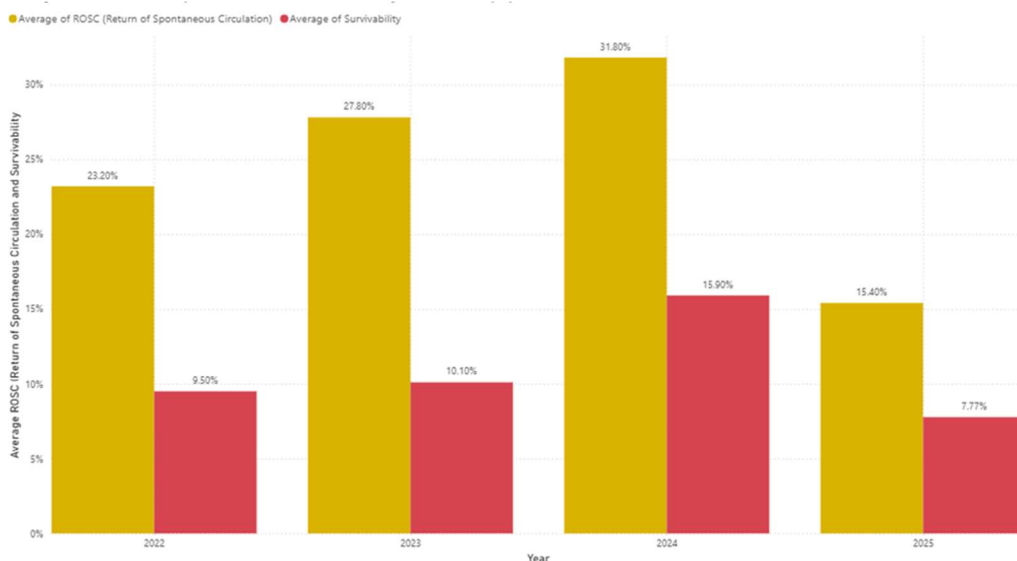
Effective emergency response follows a structured sequence of events: call handling, turnout, and travel. The call-handling process begins when the Emergency Communications Center (ECC) answers the 911 call, gathers critical information, and notifies the appropriate units.

Turnout covers dispatch, crew preparation, and initiation of response. Travel includes the journey from the station to the scene, ending at the curbside. Together, these phases define the Naperville Fire Department's overall response time.

Department performance is evaluated annually using deployment, distribution, and call volume data, ensuring objectives outlined in the standard of cover are met.

In 2018, Naperville Fire implemented the Advanced Cardiac Resuscitation (ACR) protocol, including the deployment of the Zoll AutoPulse after field testing multiple devices. This protocol was designed to optimize task execution and accountability during cardiac arrest responses.

While the department's Emergency Response Factor (ERF) of five personnel for advanced life support calls is sufficient, ACR ensures a more efficient use of resources, aiming to improve the return of spontaneous circulation (ROSC) and survivability beyond national averages. In 2023, to ensure the best opportunity for a positive outcome, the Naperville Fire Department has attached the Community Advocate Response Team (CART) to all suspected and confirmed cardiac resuscitation events. This adds two additional personnel to the ERF for a cardiac arrest incident.





CART PROGRAM

Through community outreach and risk analysis, the Naperville Fire Department recognized a growing demand for a more comprehensive approach to emergency calls involving complex medical, behavioral, and social needs that extend beyond the scope of traditional EMS. To answer this need, the Naperville Fire Department launched the Community Advocate Response Team (CART) in 2022 to better serve residents experiencing quality-of-life, behavioral health, and non-emergent medical challenges.

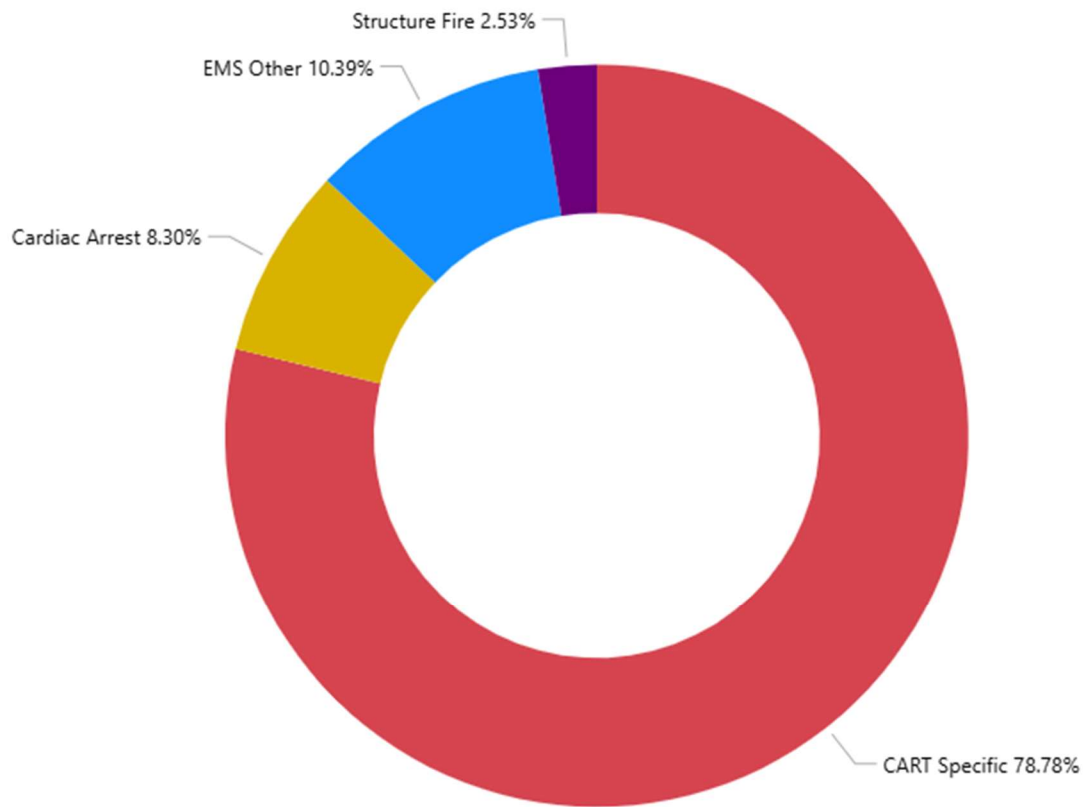
CART is designed to identify underlying factors contributing to repeated or complex service requests and to address those needs through education, advocacy, and collaboration. By leveraging strong partnerships with healthcare providers, social service agencies, and community organizations, the team connects residents with appropriate resources and support services, helping to resolve issues before they escalate into emergencies.

In 2025, CART continued to expand its role by delivering on-scene patient care focused on improved outcomes, reduced reliance on emergency department transports, and enhanced continuity of care. Specially trained paramedics serve as patient advocates, working directly with individuals and families to navigate healthcare systems and access services that promote long-term health, safety, and stability.

Beyond immediate response, CART provides follow-up visits, home safety assessments, lockbox installations, and post-incident family support. This proactive and preventative model not only improves patient outcomes and quality of life but also strengthens community trust, optimizes EMS resource utilization, and enhances the overall level of care delivered by the Naperville Fire Department. In addition, the CAR 47 unit has been added to general alarm assignments for confirmed structure fires and confirmed cardiac arrest incidents, allowing the Fire Department to meet the ERF for these incidents.



CART Incident Response by Percentage:





UNIT UTILIZATION AND IN-DISTRICT RELIABILITY

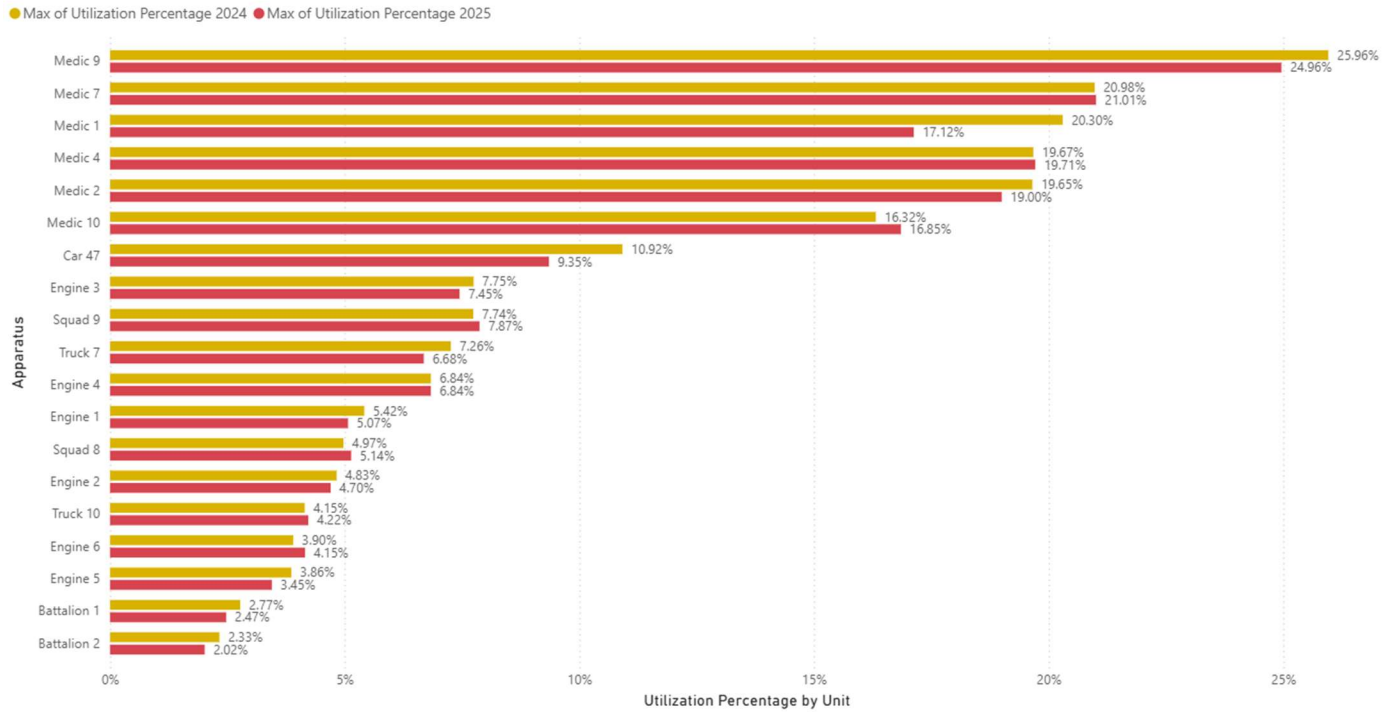
Analysis of unit utilization demonstrates activity levels by overall utilization percentages for each apparatus. Over the past two years, the Naperville Fire Department has seen unit utilization plateau with both fire suppression vehicles and EMS units. This trend can be attributed to reduced residential growth in 2025. Future residential and population growth will be discussed later in this document in the plan for maintaining and improving performance. Tracking utilization enables the Naperville Fire Department to assess how suppression and EMS resources are deployed across the city. This assists in striving to maintain an effective response force for incidents at the 90% performance benchmark.

As unit utilization increases, maintaining a reliable emergency response depends on active resource management and strategic distribution of available units. Senior staff and Battalion Commanders continuously monitor system demand and adjust coverage to minimize response time impacts. During major events that significantly reduce available resources and create potential coverage gaps, the department relies on established box alarm cards assigned to each still district. These cards define dispatch assignments for multiple-alarm responses and identify both Naperville and mutual aid resources for incident response and station coverage. In 2025, the department updated these box alarm cards to align with utilization trends and ensure continuous staffing during major incidents, prioritizing Stations 5, 7, and 9 for change-of-quarters companies due to their centralized locations.

In addition to large-scale incidents, increasing utilization has resulted in more frequent concurrent and back-to-back fire and EMS calls. When a unit is committed within a district, subsequent requests can lead to increased response times. To offset these impacts, the department has implemented station priorities and resource assignment policies that guide the deployment of remaining available units. When paired with ongoing analysis of utilization data and performance metrics, these operational strategies allow the department to balance system demand, maintain unit availability citywide, and sustain effective emergency response despite fluctuating service demands.



Max of Utilization Percentage 2024 and Max of Utilization Percentage 2025 by Apparatus

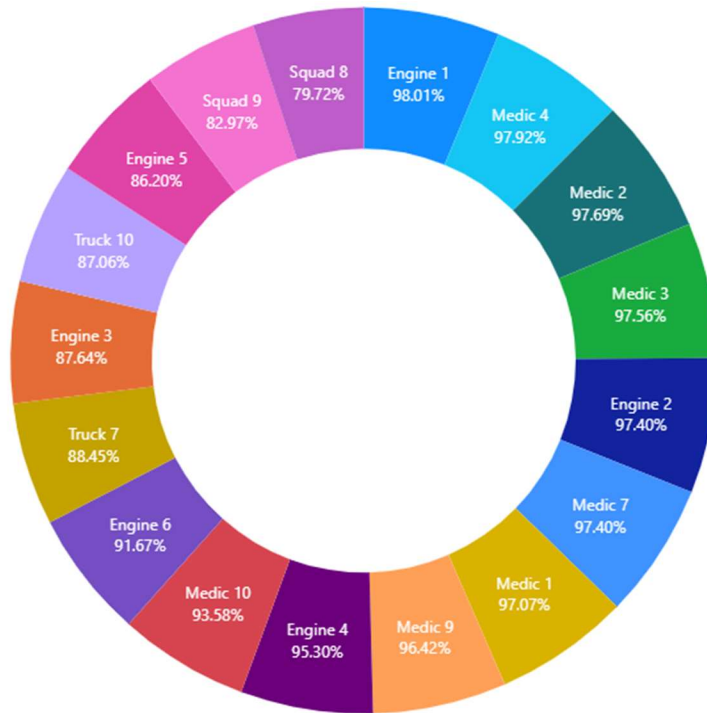


2025 Unit Reliability by Station:

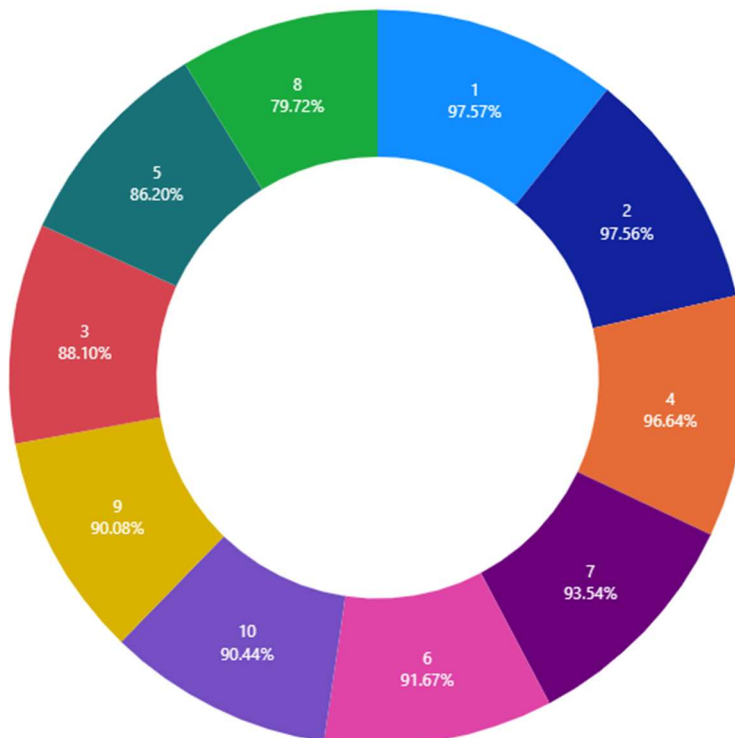
Station Number	Unit Reliability by Station	In Distric Incidents	In District Responses
1	97.57%	1894	1848
2	97.56%	2049	1999
3	88.10%	1773	1562
4	96.64%	2915	2817
5	86.20%	739	637
6	91.67%	936	858
7	93.54%	2431	2274
8	79.72%	996	794
9	90.08%	2751	2478
10	90.44%	1590	1438



2025 Reliability by Unit:



2025 Reliability by Station:





Medic Unit Utilization by hour of the day:

Hour of Day	Medic 1	Medic 2	Medic 4	Medic 7	Medic 9	Medic 10	Car 47
0	12.20%	9.66%	15.04%	8.35%	16.09%	9.77%	6.16%
1	6.87%	10.02%	12.60%	7.63%	16.17%	8.95%	4.58%
2	7.32%	9.66%	9.79%	6.67%	9.65%	7.25%	2.18%
3	6.34%	9.30%	6.77%	4.64%	10.95%	5.44%	2.65%
4	6.14%	9.37%	8.56%	9.14%	16.76%	10.13%	2.90%
5	4.75%	7.87%	10.12%	6.49%	10.67%	6.92%	2.57%
6	6.62%	11.34%	16.45%	10.63%	20.68%	10.55%	3.98%
7	14.35%	17.25%	18.40%	19.20%	25.89%	19.05%	7.36%
8	25.42%	21.13%	21.50%	23.89%	28.92%	20.20%	12.25%
9	21.77%	29.11%	23.45%	30.79%	33.40%	24.62%	14.15%
10	23.89%	27.50%	28.06%	35.76%	35.97%	27.12%	9.76%
11	29.11%	29.20%	31.19%	37.14%	40.12%	24.43%	14.78%
12	29.01%	31.55%	27.57%	34.39%	35.58%	26.82%	15.24%
13	28.28%	27.09%	34.12%	28.76%	35.87%	23.29%	14.11%
14	28.19%	27.91%	26.59%	34.67%	36.38%	20.98%	13.60%
15	22.65%	25.69%	30.26%	32.33%	34.11%	23.96%	12.73%
16	20.09%	21.83%	27.01%	28.20%	32.79%	19.20%	15.94%
17	23.84%	20.91%	21.81%	24.71%	30.67%	18.61%	11.82%
18	17.37%	22.38%	19.94%	27.40%	23.56%	19.09%	12.83%
19	23.60%	20.41%	21.29%	25.08%	27.53%	20.41%	12.17%
20	16.93%	19.22%	18.58%	21.20%	28.59%	17.32%	10.94%
21	12.39%	21.02%	19.58%	22.21%	20.96%	15.43%	10.71%
22	11.98%	14.85%	15.07%	15.28%	16.63%	17.03%	5.82%
23	11.85%	11.73%	10.55%	9.70%	11.33%	7.85%	5.47%

Medic Unit Utilization by day of the week:

Day of the Week	Medic 1	Medic 2	Medic 4	Medic 7	Medic 9	Medic 10	Car 47
Sunday	16.11%	16.39%	17.11%	17.96%	24.18%	14.24%	8.12%
Monday	18.14%	19.11%	21.24%	21.56%	23.76%	18.48%	9.79%
Tuesday	17.31%	19.64%	20.18%	20.70%	26.14%	16.79%	10.83%
Wednesday	17.61%	21.40%	20.36%	21.15%	25.35%	17.92%	8.93%
Thursday	17.19%	19.69%	21.66%	23.06%	25.71%	17.81%	10.73%
Friday	18.97%	19.36%	19.12%	24.47%	24.98%	16.50%	9.37%
Saturday	14.87%	17.76%	19.03%	18.58%	25.15%	16.53%	7.96%



Suppression Unit Utilization by hour of day:

Hour of Day	Battalion 1	Battalion 2	Engine 1	Engine 2	Engine 3	Engine 4	Engine 5	Engine 6	Truck 7	Squad 8	Squad 9	Truck 10
0	1.92%	1.20%	3.98%	1.75%	4.73%	5.52%	1.84%	2.44%	3.39%	2.38%	4.61%	2.62%
1	1.43%	1.60%	1.92%	2.47%	4.15%	4.01%	2.65%	2.96%	2.09%	2.94%	4.08%	3.00%
2	1.42%	0.91%	2.84%	2.13%	4.14%	4.00%	1.09%	2.60%	2.61%	2.70%	2.95%	1.41%
3	1.17%	0.92%	2.24%	1.41%	2.23%	2.76%	2.05%	1.36%	2.49%	2.49%	2.48%	1.21%
4	1.77%	1.51%	2.12%	3.23%	3.11%	3.29%	2.12%	3.57%	2.14%	2.86%	3.85%	2.62%
5	0.90%	0.59%	1.38%	2.43%	3.06%	3.52%	1.91%	2.10%	2.43%	1.93%	3.93%	1.91%
6	1.18%	0.68%	2.18%	1.77%	3.40%	5.86%	2.59%	2.59%	3.32%	1.45%	5.07%	2.39%
7	2.47%	2.14%	4.35%	4.02%	6.43%	6.23%	2.89%	2.96%	4.16%	4.38%	7.14%	5.33%
8	1.87%	1.52%	4.69%	5.40%	8.76%	8.45%	3.36%	4.17%	5.88%	6.61%	8.39%	4.26%
9	3.38%	3.95%	5.78%	6.67%	9.83%	8.58%	4.70%	3.88%	8.85%	8.13%	10.39%	6.56%
10	3.51%	2.77%	7.25%	5.53%	11.71%	9.17%	4.53%	5.28%	11.79%	10.03%	12.13%	7.50%
11	2.10%	1.95%	8.18%	7.44%	11.04%	9.83%	4.33%	6.06%	10.90%	7.40%	13.05%	5.33%
12	2.48%	1.43%	7.16%	7.37%	11.41%	8.44%	5.25%	5.82%	10.86%	7.10%	9.58%	5.52%
13	2.69%	1.91%	7.00%	7.77%	10.29%	10.90%	3.64%	4.31%	9.44%	6.55%	11.22%	4.02%
14	3.75%	3.63%	9.33%	7.24%	11.75%	8.26%	4.66%	7.10%	10.43%	8.69%	12.48%	5.15%
15	4.74%	4.03%	7.53%	6.74%	11.24%	10.82%	6.46%	6.41%	10.93%	7.45%	11.14%	7.27%
16	2.72%	2.34%	6.49%	6.35%	9.88%	9.22%	3.71%	4.59%	7.62%	5.99%	9.39%	4.57%
17	3.47%	2.39%	6.58%	6.87%	9.06%	7.37%	4.22%	4.28%	10.49%	5.35%	9.88%	4.52%
18	4.01%	2.65%	5.93%	5.53%	7.67%	7.78%	3.38%	5.60%	8.53%	6.72%	9.91%	6.09%
19	2.38%	2.29%	6.15%	4.94%	9.81%	6.37%	4.12%	6.23%	7.16%	4.49%	10.97%	4.27%
20	3.11%	2.57%	6.18%	4.75%	8.56%	7.73%	3.22%	4.52%	8.35%	5.15%	10.03%	4.82%
21	2.68%	2.70%	4.94%	4.42%	6.64%	5.83%	3.47%	4.75%	6.65%	5.42%	7.20%	5.67%
22	2.54%	1.91%	4.07%	3.08%	4.99%	5.63%	3.74%	3.40%	5.58%	4.52%	4.85%	3.99%
23	1.70%	0.82%	3.42%	3.52%	5.76%	4.62%	2.82%	2.73%	4.36%	2.60%	4.23%	1.34%

Suppression Unit utilization by day of the week:

Day of the Week	Battalion 1	Battalion 2	Engine 1	Engine 2	Engine 3	Engine 4	Engine 5	Engine 6	Squad 8	Squad 9	Truck 7	Truck 10
Sunday	1.78%	1.24%	3.86%	4.25%	6.77%	5.32%	2.15%	3.22%	4.09%	7.12%	5.52%	3.36%
Monday	2.68%	2.56%	5.50%	4.23%	8.03%	7.82%	3.34%	4.61%	4.95%	7.46%	7.27%	4.43%
Tuesday	2.62%	2.38%	5.20%	5.12%	7.48%	6.94%	4.04%	4.64%	5.19%	7.79%	6.77%	4.09%
Wednesday	2.09%	1.83%	5.67%	5.04%	7.53%	7.61%	3.39%	3.94%	5.77%	8.01%	6.92%	5.34%
Thursday	2.51%	1.43%	4.72%	4.86%	7.65%	7.04%	3.72%	4.13%	6.37%	8.98%	7.08%	3.84%
Friday	2.93%	2.13%	5.54%	4.53%	7.37%	6.97%	3.95%	3.90%	5.96%	8.26%	7.40%	4.45%
Saturday	2.75%	2.58%	5.11%	4.97%	7.70%	6.32%	3.61%	4.73%	3.74%	7.63%	5.97%	4.14%



COMMUNITY RISK REDUCTION

The Naperville Fire Department compiles and evaluates a wide range of data to monitor and improve public safety, including fire loss, civilian injury and loss of life, firefighter injury, property loss, and non-structure fire loss. Prior to the transition to NERIS, fire suppression and EMS incident data were entered into an NFIRS-compliant records management system. In September of 2023, the Naperville Fire Department transitioned to the First Due RMS. The Department currently participates in the NERIS and the National Emergency Medical Services Information System (NEMSIS). The department submits the required data reports electronically. Due to the transition to NERIS and the Department's recent change in RMS, access to legacy data has been limited.

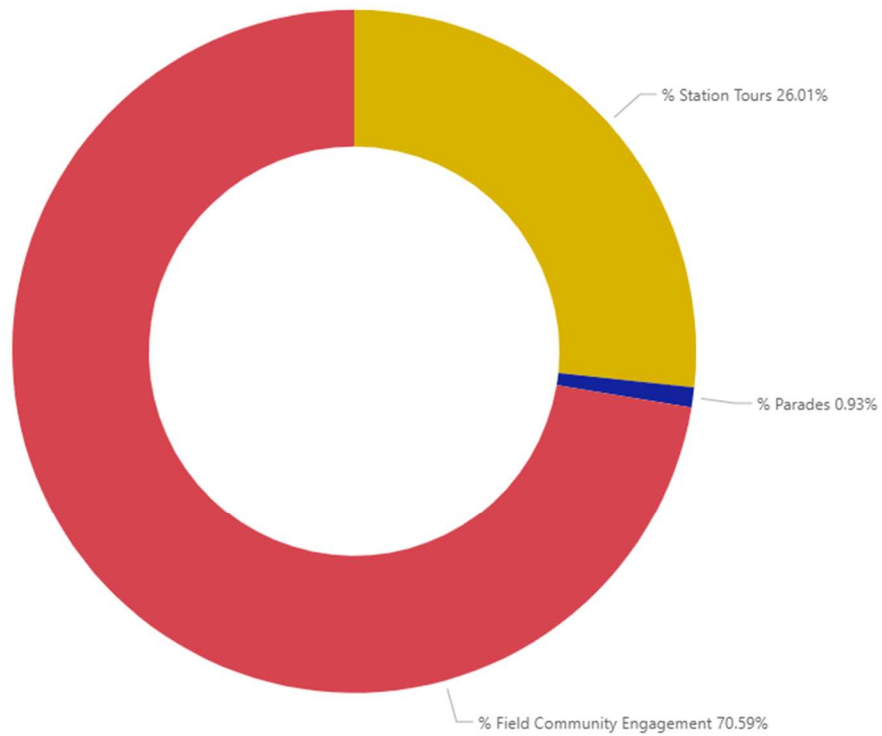
In addition to data collection and analysis, the Department has increased its focus on community risk reduction. Annual fire and life safety inspections are conducted for all multifamily, health care, educational, and industrial facilities within the response area. These inspections allow the Department to correct immediate life hazards and identify opportunities for occupant safety education or remediation.

The Office of the Naperville Fire Marshal and the Community Risk Reduction Manager evaluate emergency response risk levels and identify public education needs. This enables the Department's Public Education Specialist to develop programs tailored to the community. Current initiatives include Learn Not to Burn, Safety Town presentations, fire extinguisher training, senior fire safety, dormitory fire safety, fire watch programs, first aid for seventh graders, babysitting safety, workplace fire safety, youth fire setter intervention, and CPR/AED and Stop the Bleed instruction.

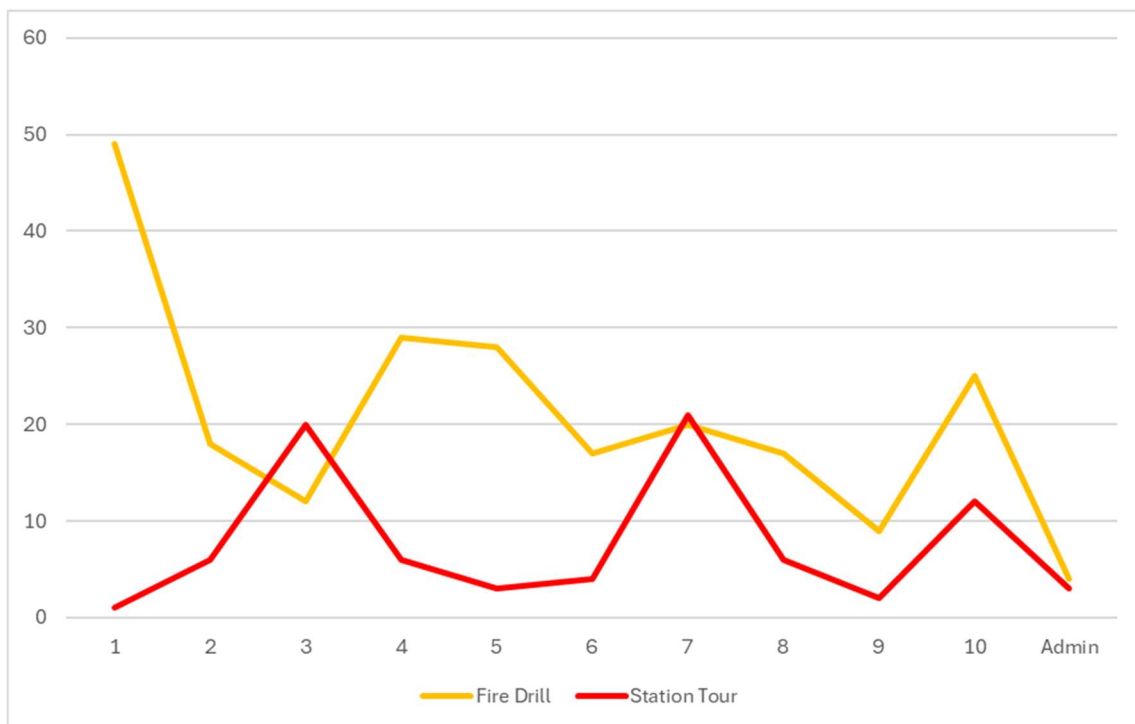
The Department also regularly disseminates Community Risk Reduction (CRR) messages to address seasonal risks, emerging hazards, and current events. CRR efforts prioritize mental health concerns, frequent 911 users, common EMS call types, and care coordination challenges. Additionally, the Department leverages the PulsePoint app to enhance transparency and empower residents to respond to sudden cardiac arrest events.



Percentage of Public Education Hours by Category:



Public Education Hours by Station:





MEASURING AND REPORTING DATA

The Naperville Fire Department uses Power BI, First Due, and Image Trend software systems to evaluate department performance. Established benchmarks for in-district emergency responses are 30 seconds for call handling, 90 seconds for turnout, 240 seconds (4 minutes) for travel, and 360 seconds (6 minutes) total response time for the first arriving unit. Performance is reviewed annually by senior staff and documented in the department's annual compliance report.

Performance metrics are also reviewed with external stakeholders. During the strategic planning process, Senior Staff presents benchmark and baseline data to external stakeholders to facilitate discussion on response expectations. Stakeholder feedback from the 2026 strategic plan meetings reinforced the department's current response strategy. Program managers annually submit evaluations to assist with generating the department's annual report. The evaluations are used to analyze performance, assess progress toward goals, identify needs, and establish future objectives.

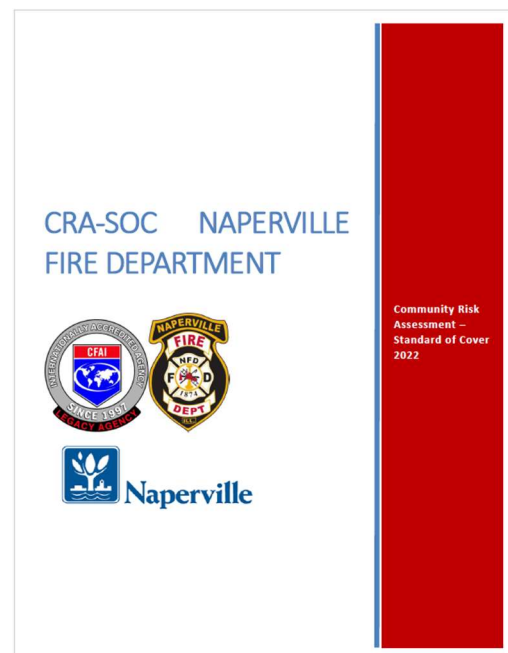
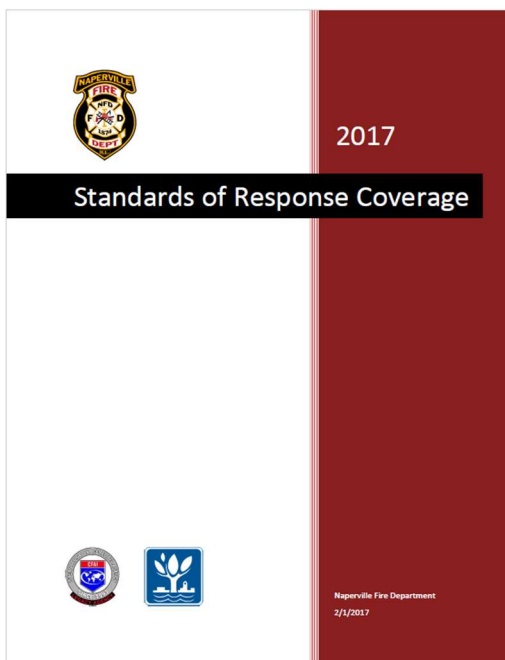
Operational performance is monitored daily through shift captains' response reports using Power BI visualizations. Response trends are discussed at operations and senior staff meetings. The discussion helps guide continuous operational improvement. These discussions supported recent upgrades to CAD and radio communications. The upgrade to CAD may allow automatic collection of on-scene times using geofencing, reducing inaccurate or missed time entries. The department continued to strengthen data accuracy by upgrading the Department's RMS to the First Due software. The change in RMS allowed for a more granular look at response data.

Each department program submits an annual assessment and narrative for inclusion in the annual report. Program managers identify future goals and align them with budget requests. Community concerns identified include being proactive in our station and response planning, empowering citizen heroes through innovative presentation methods for CPR and Stop the Bleed, and continuing our work with the Community Advocate Response Team. Previous community trends, such as prescription drug disposal needs, senior calls for service, and concerns related to mass violence, are not ignored and will continue to be actively monitored and addressed.



Monthly staff meetings provide additional insight into community trends, including fire causes, new construction, dangerous buildings, and public education needs. For example, a fatal fire involving a religious altar in a home resulted in a campaign to educate the citizens in proper residential candle use and alternative light source candles.

The department reports performance annually through the departmental annual report and the CRA-SOC document. Data analysis is actively being used to forecast fluctuations in incidents at a departmental and district level. The department applies correlation matrices, linear, and lasso regression analyses to incident response and census data to evaluate the relationship between incidents, socioeconomic conditions, and population density. In coordination with the Naperville Transportation Engineering and Development (TED) business group, the Naperville Fire Department collects future development data and applies the coefficients of the statistically significant socioeconomic category. This process is utilized to attain the projected fluctuation in incident numbers. Detailed results of the data analysis are described earlier in CRA-SOC.





IMPROVEMENT THROUGH PROACTIVE MEASURES

During the 2024 CFAI annual compliance report, the Naperville Fire Department evaluated and adjusted baseline performance for all emergency responses. The department identified several opportunities for improvement when compared to established benchmarks. Emergency Communications Center (ECC) pick-up to dispatch time averaged 77 seconds versus a benchmark of 30 seconds or less. This has been attributed to turnover in the ECC and inexperienced communications technicians. Although the average was increased, the pick-up to dispatch time met the 30-second benchmark 54% of the time. This represents an opportunity for education and improvement. Turnout time averaged 1 minute 58 seconds compared to the benchmark of 1 minute 30 seconds, indicating an improvement opportunity of 17 seconds. Travel time averaged 5 minutes 11 seconds versus the benchmark of 4 minutes, however the department met the benchmark time 76% of the time. Total response time for the first-arriving unit averaged 8 minutes 15 seconds compared to the benchmark of 6 minutes. The increase to response time can be attributed to road construction on major roadways, like the Washington Street bridge and River Road.

For incidents involving multiple units where the Effective Response Force (ERF) was initially dispatched, baseline performance was markedly lower than benchmark targets for average ERF travel time. The average ERF was 11 minutes and 13 seconds, lower than both the 15-minute benchmark for EMS incidents and the 20-minute benchmark for fire suppression incidents. In the spirit of the CFAI model of continuous improvement, the Naperville Fire Department adjusted the benchmark for ERF travel time to moderate and high-risk EMS incidents to 10 minutes. Further, the department adjusted the benchmark for ERF travel time to moderate, high-risk, and target risk fire suppression incidents to 15 minutes.

To maintain and improve current response capabilities, the department will utilize the data analytics previously mentioned to anticipate fluctuations in call volume. Each response district will be evaluated individually, along with the City as a whole. The Naperville Fire Department will evaluate the predictive model at least annually to ensure the accuracy of the data.



Ongoing efforts in training focus on enhancing officer development through evidence-based firefighting tactics informed by current research. The Professional Development Division provides consistent instruction and messaging on fireground strategy and tactics. In addition, the officer development series has incorporated external subject matter experts to strengthen the knowledge of the department's officer corps. The Professional Development Division has also generated pathways for a firefighter to progress through their career regardless of their chosen path.

In addition, the department has observed increased ECC pick-up to dispatch times over the past two years. While these increases are largely attributable to turnover in telecommunicators, this trend represents an area requiring ongoing monitoring and evaluation to ensure call handling performance returns to benchmark levels.

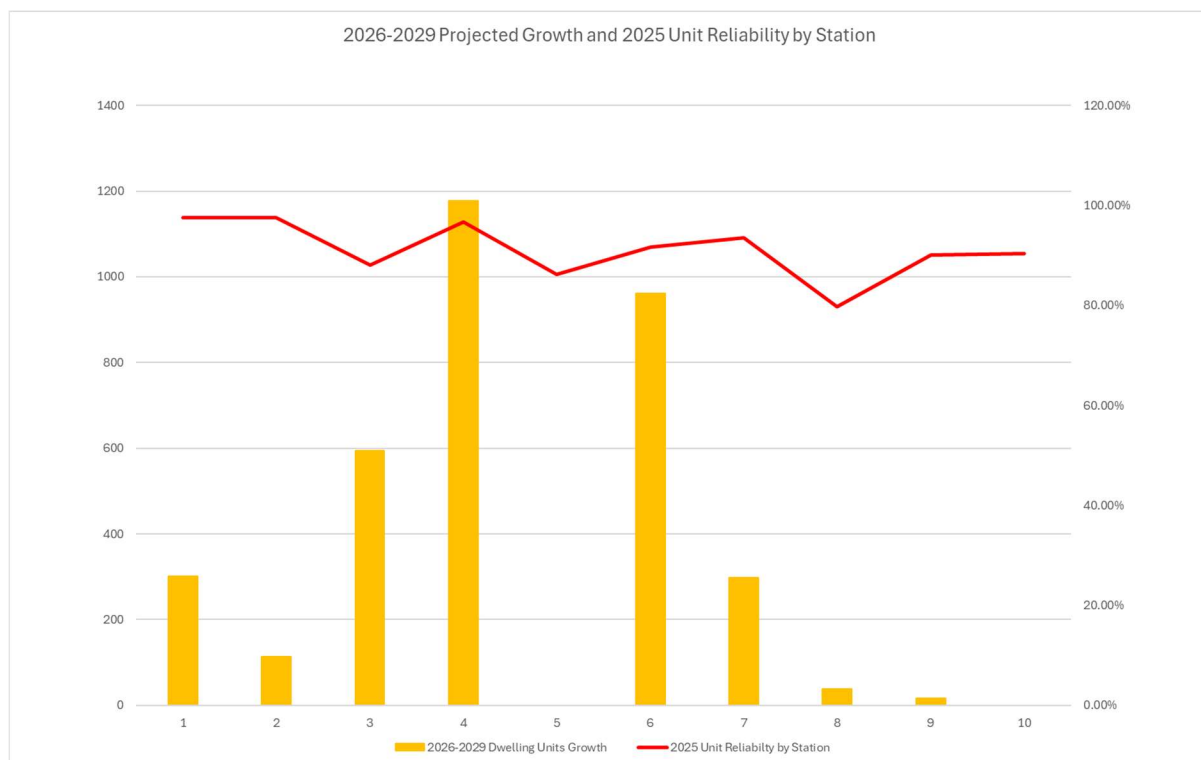
The department has a continued need to respond to non-traditional and non-emergency calls for service. Early results from the 24-hour ambulance assigned to the Community Advocate Response Team (CART) indicate positive outcomes in managing these calls. In addition, the CART unit works to preserve emergency response resources. The program will continue to be evaluated, with performance outcomes reported to both internal leadership and external stakeholders.



PREDICTIVE RESPONSE ANALYSIS

By applying the correlation identified through linear regression analysis and re-enforced by the LASSO regression, the Naperville Fire Department has projected an increase in call volume between 164 and 327 incidents as a result of increased population density only. This projection was developed by applying the population density coefficient to the anticipated growth in single-family dwellings, applying an average of three residents per unit. The increase in population was added to the station's overall population, and the population density was updated. The difference in the population density from 2025 and the projected density was attained and multiplied by the coefficient to attain the projected increase in call volume for each still district upon completion of the projects. The probability is within 95% that the increase will occur.

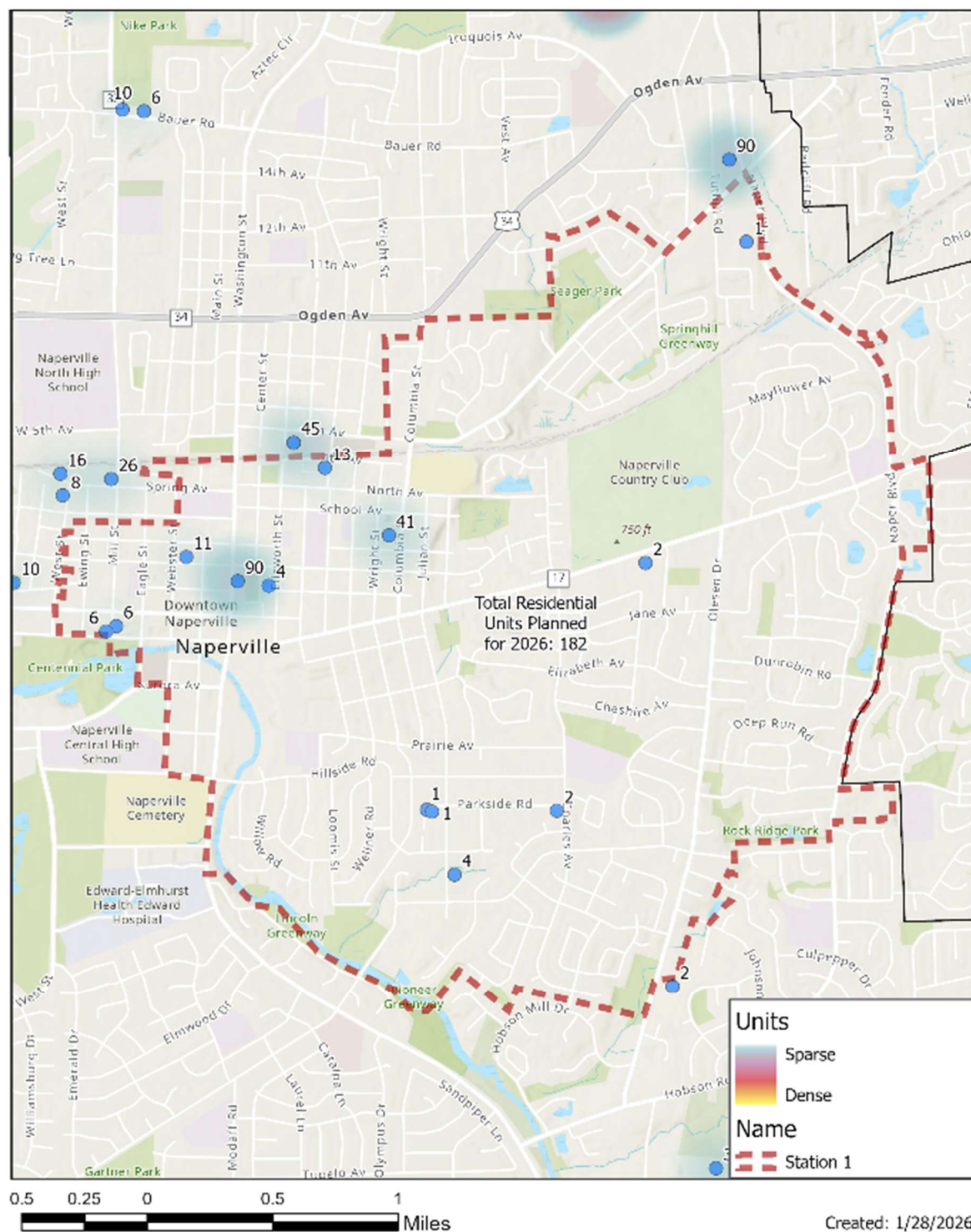
This analytical approach allows the department to more accurately estimate future service demand by accounting for both residential development trends and demographic changes that have historically influenced emergency response activity for the Naperville Fire Department. The resulting projection will be subject to continuous evaluation to ensure the model provides an accurate projection. As developments are completed, the department will assess the impact and accuracy of the model.





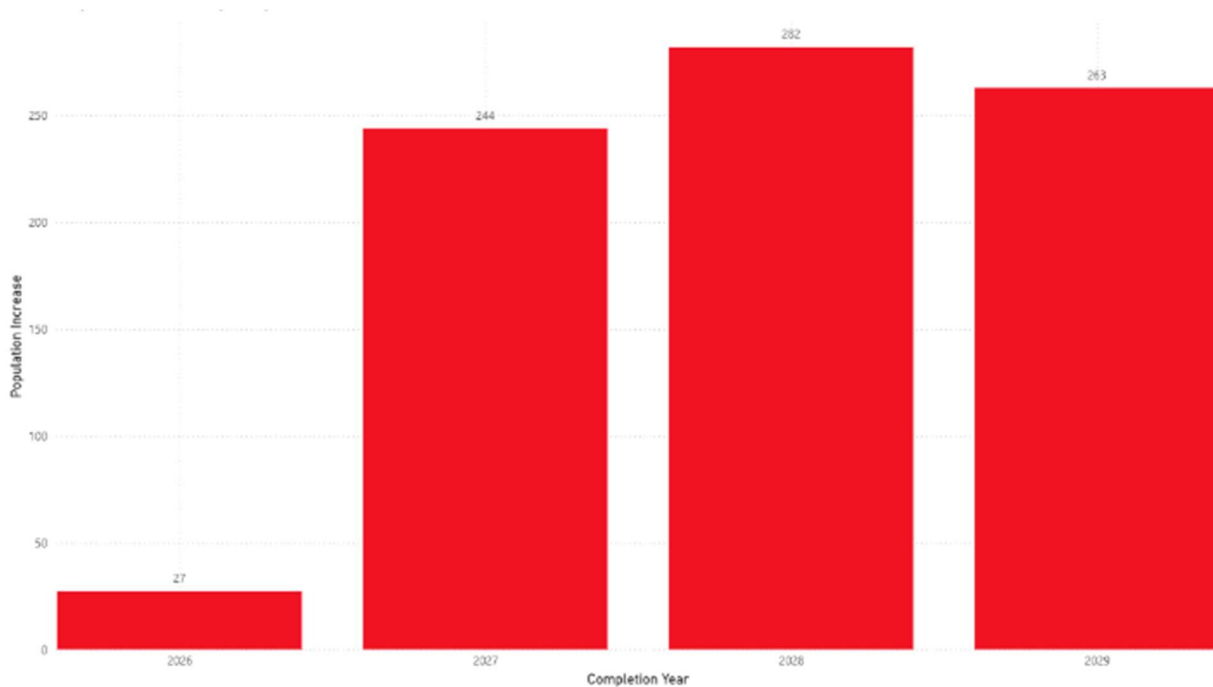
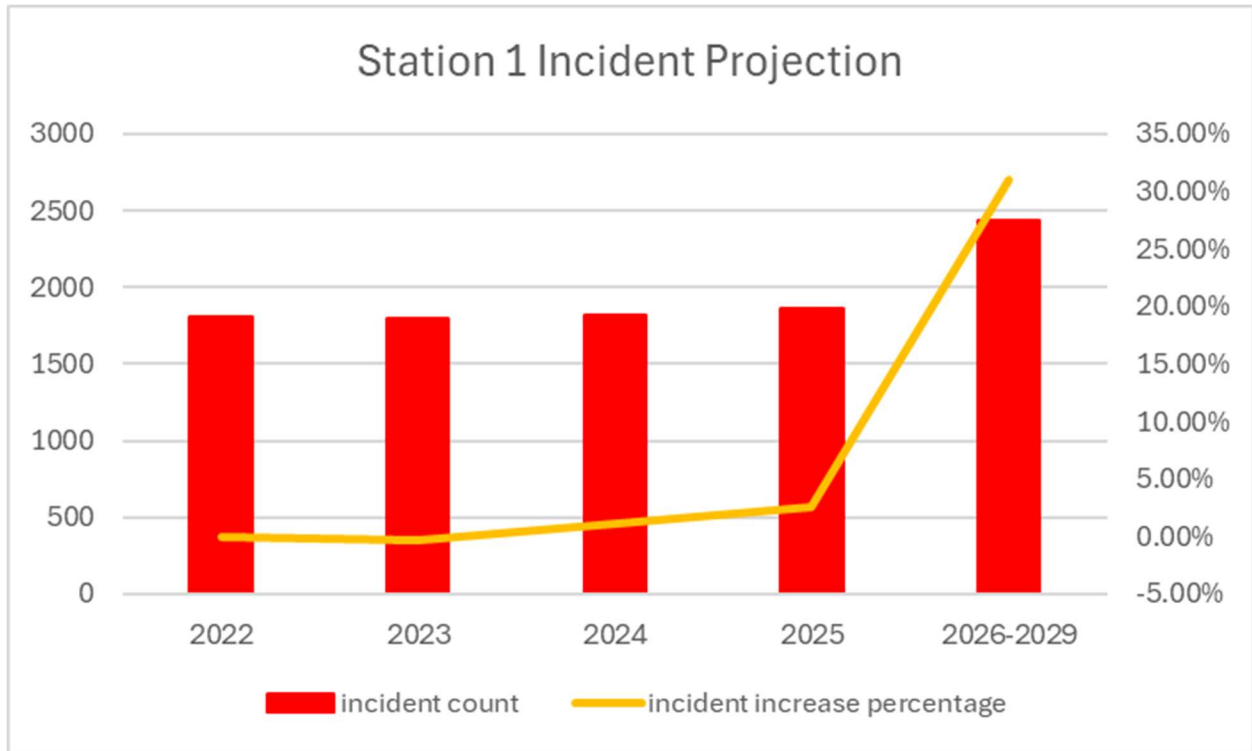
Station 1 Projected Development:

Residential Development





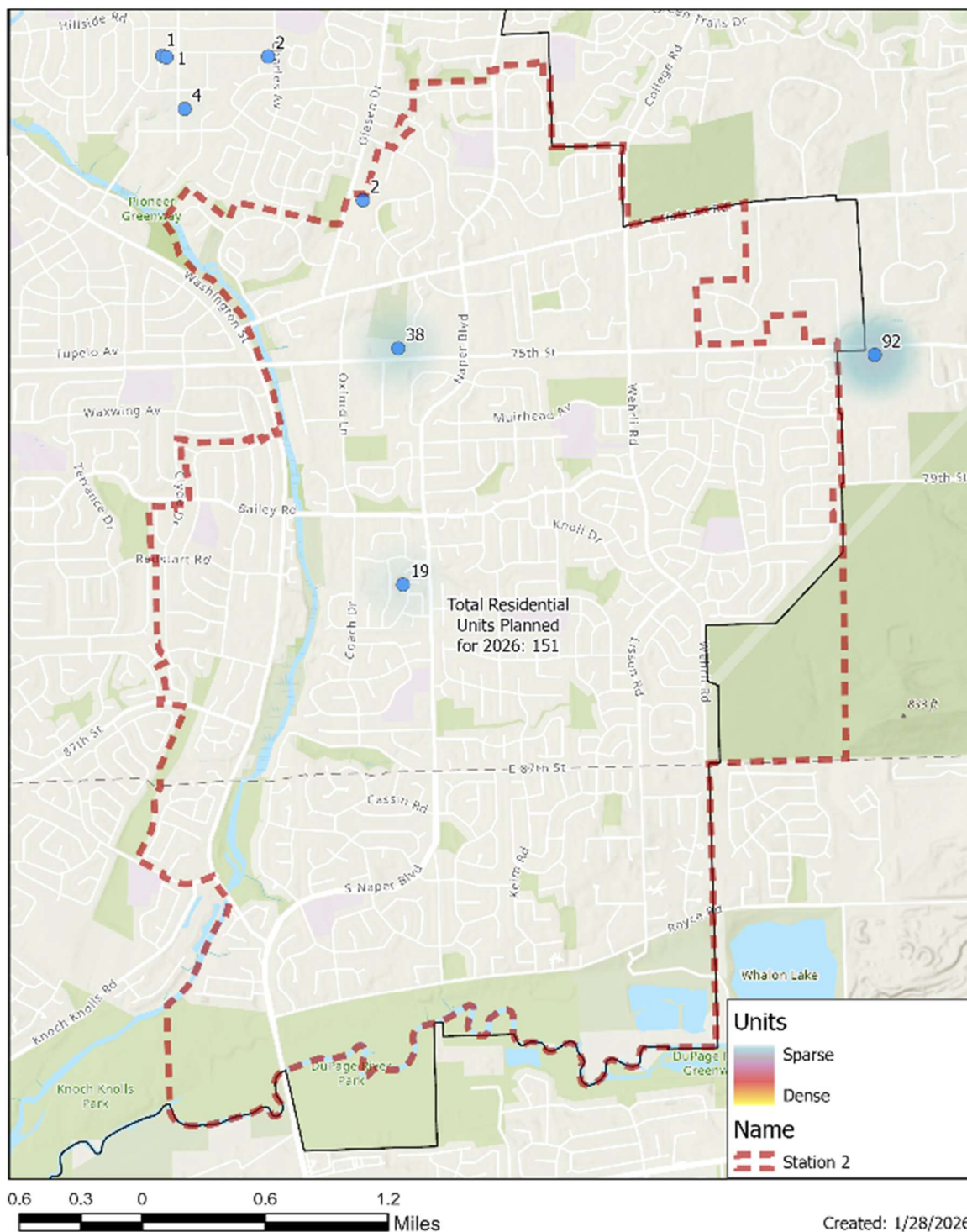
Station 1 Projected Increase:





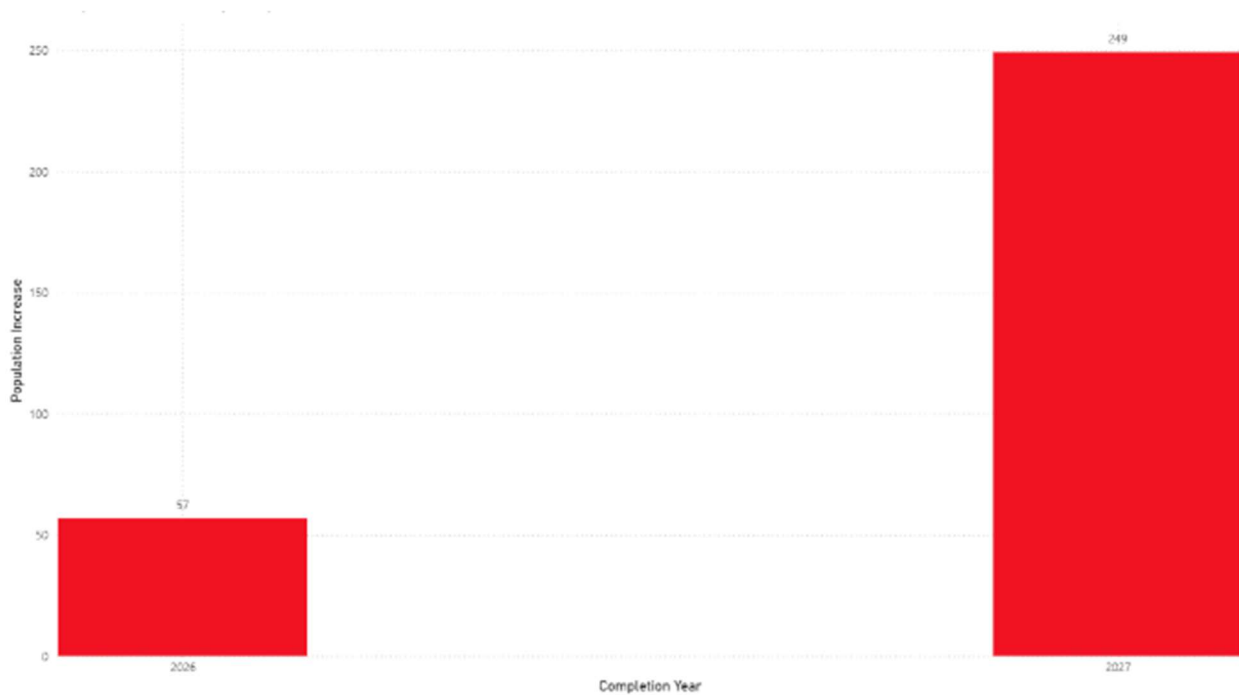
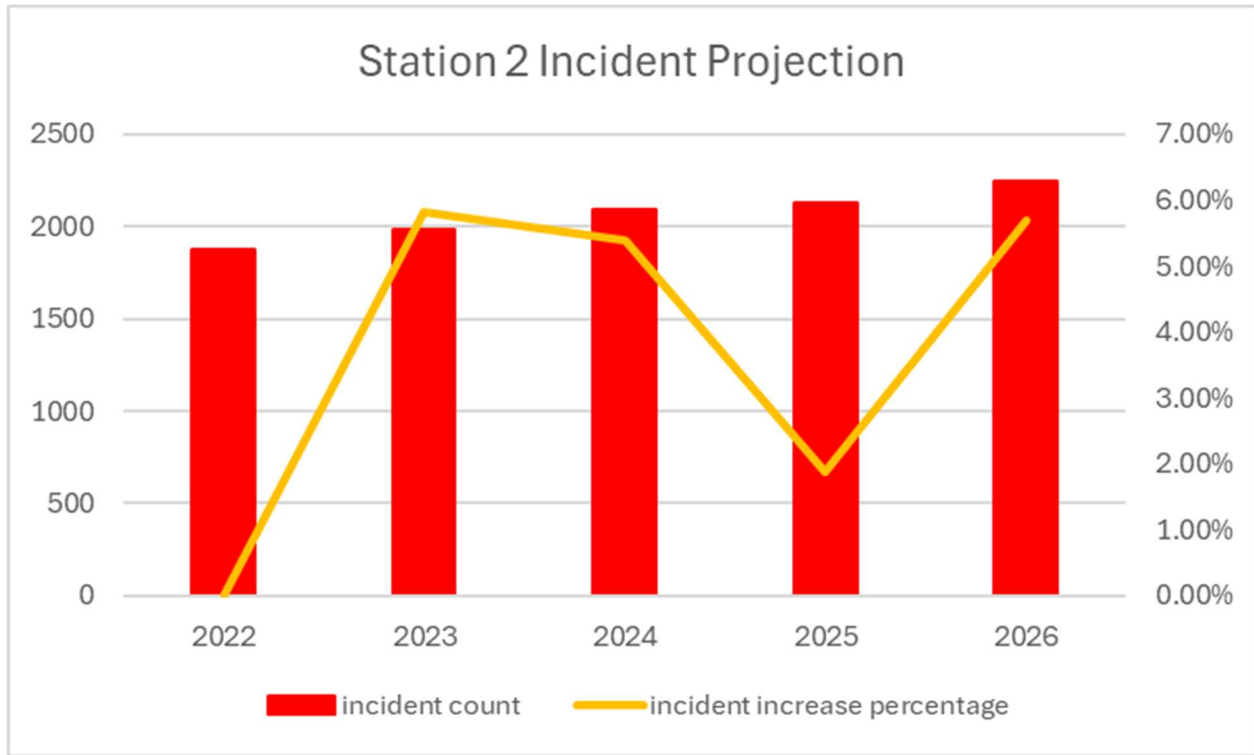
Station 2 Projected Development:

Residential Development





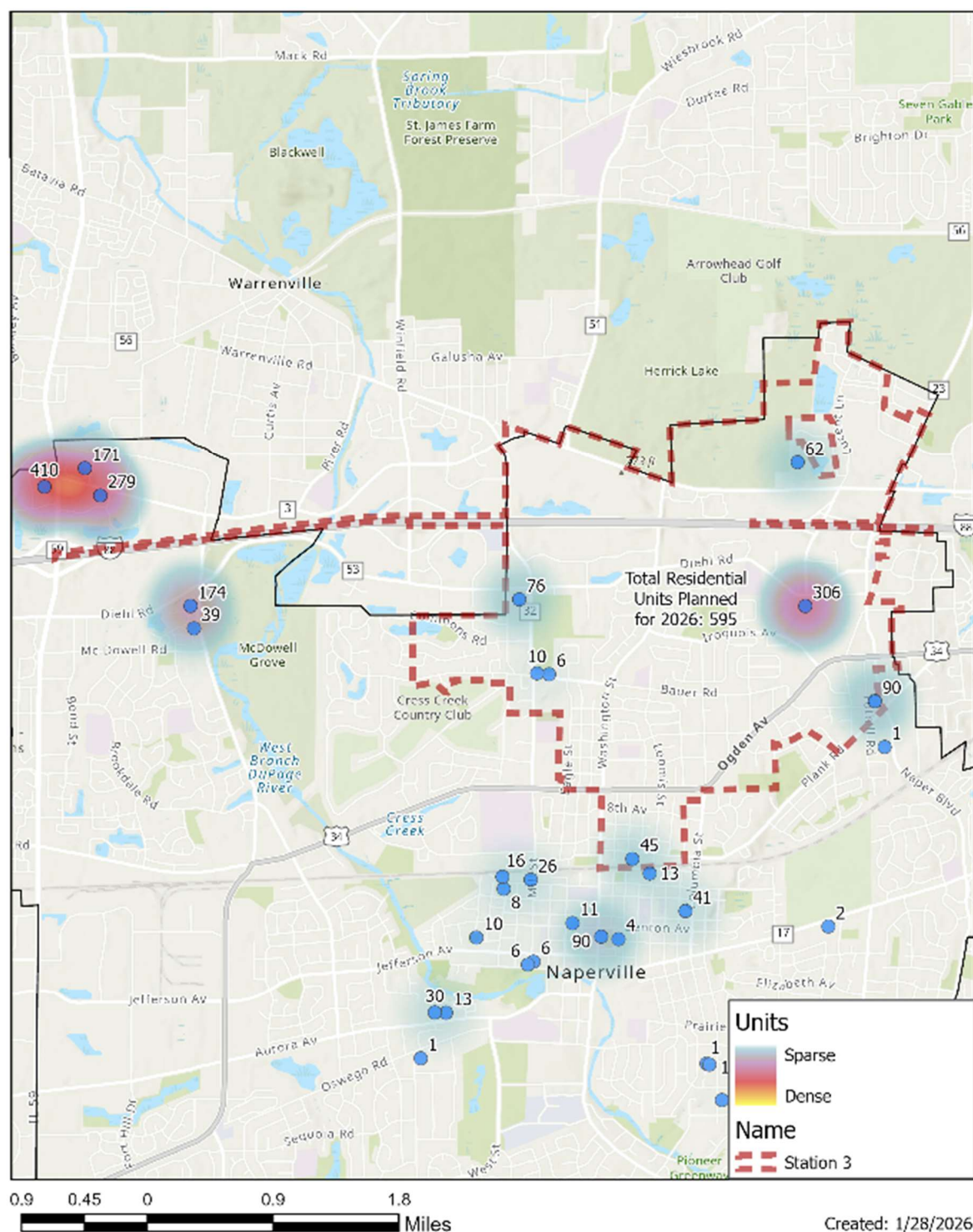
Station 2 Projected Increase:





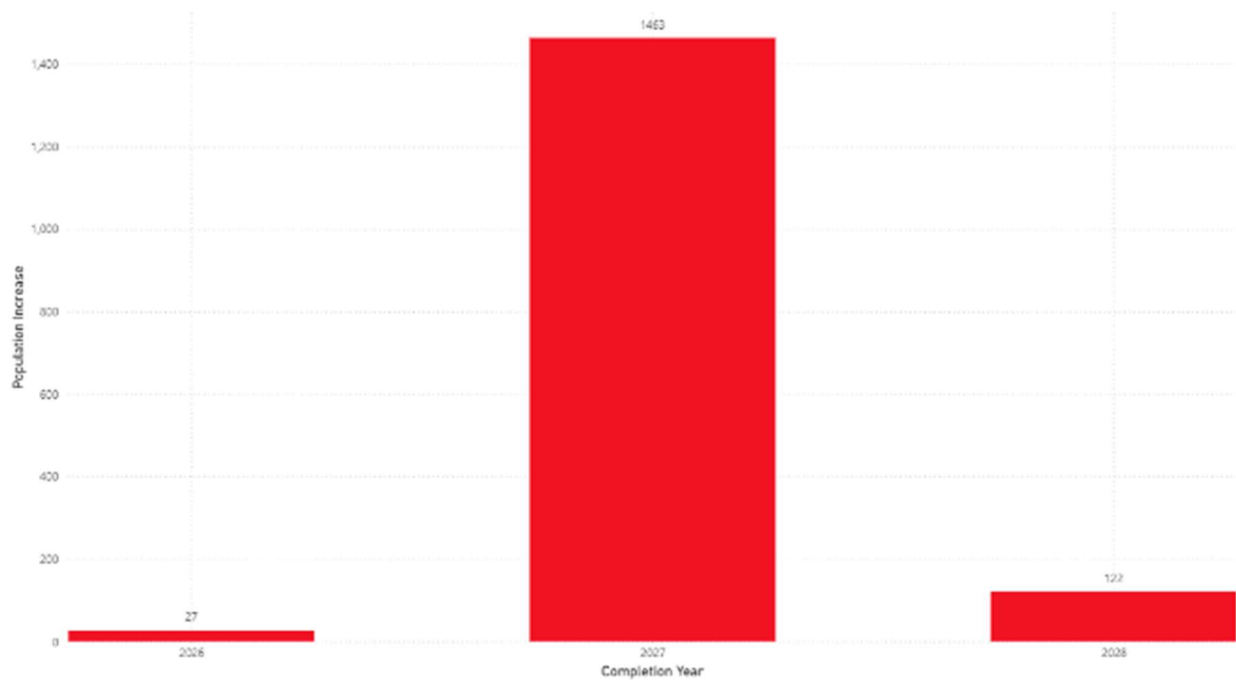
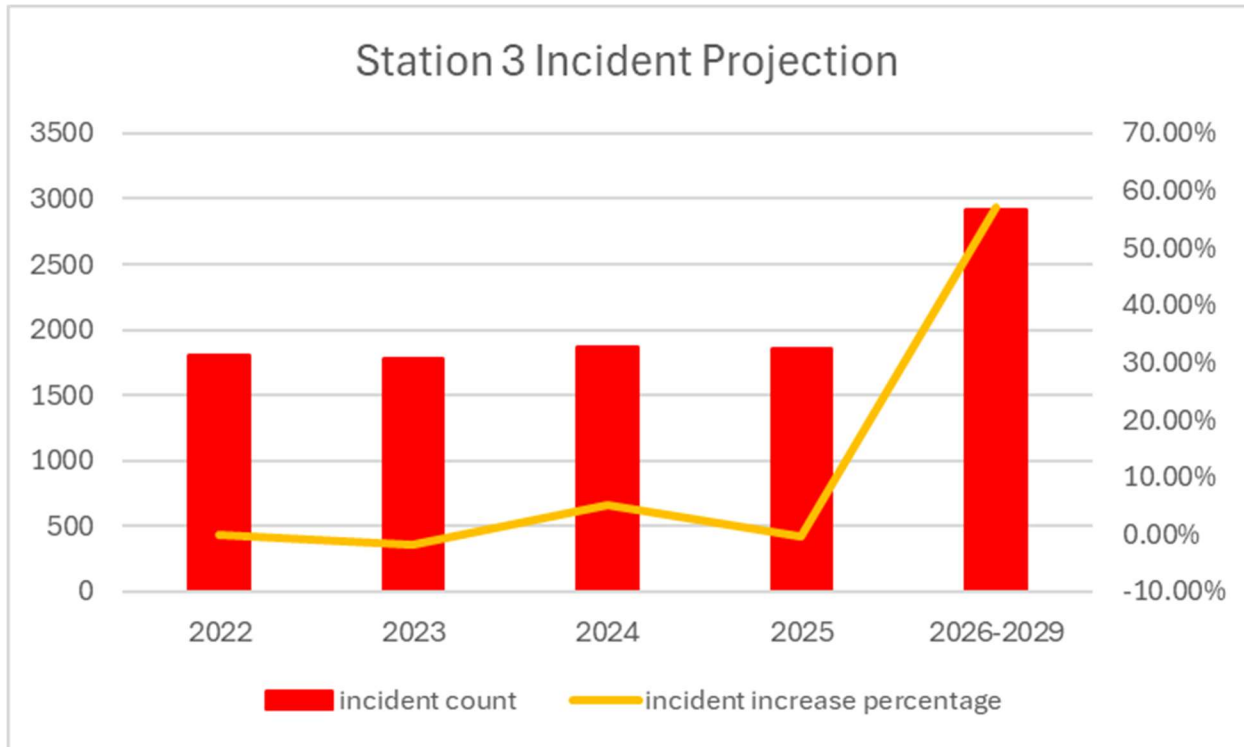
Station 3 Projected Development:

Residential Development





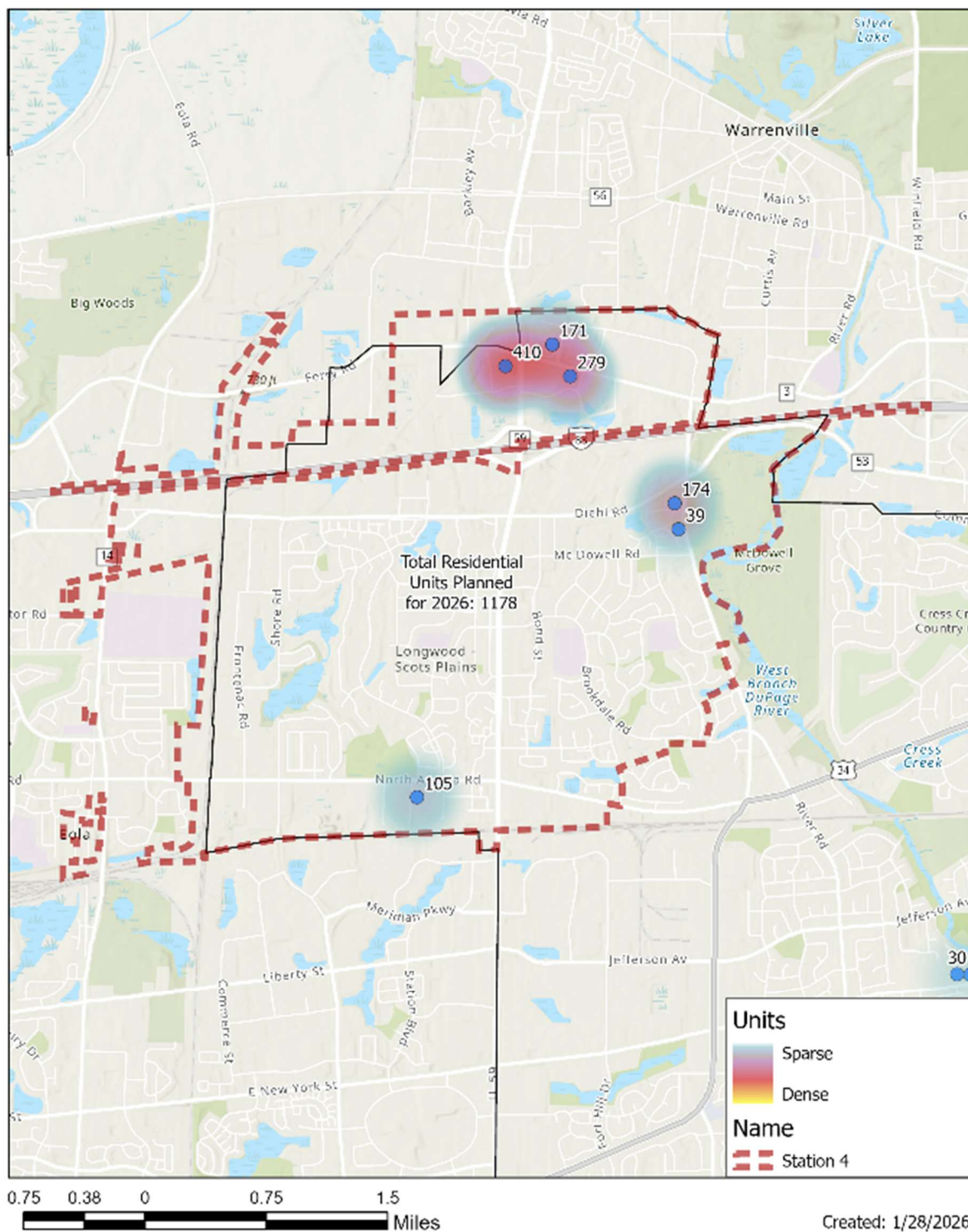
Station 3 Projected Increase:





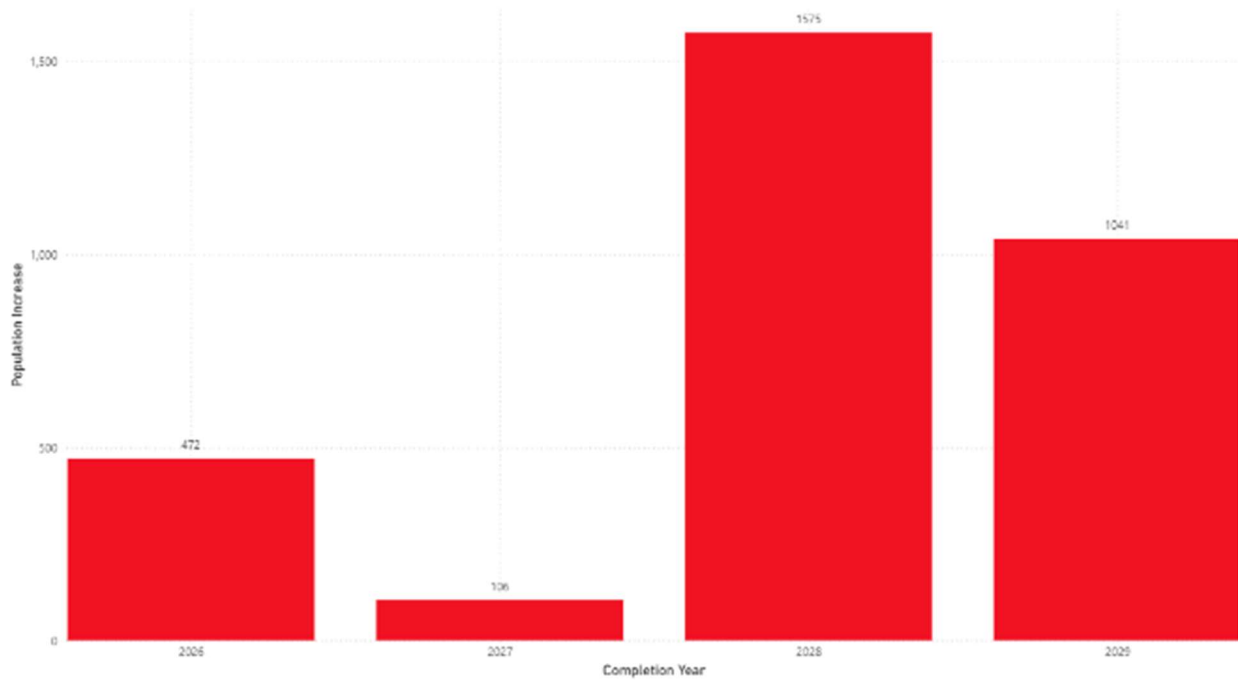
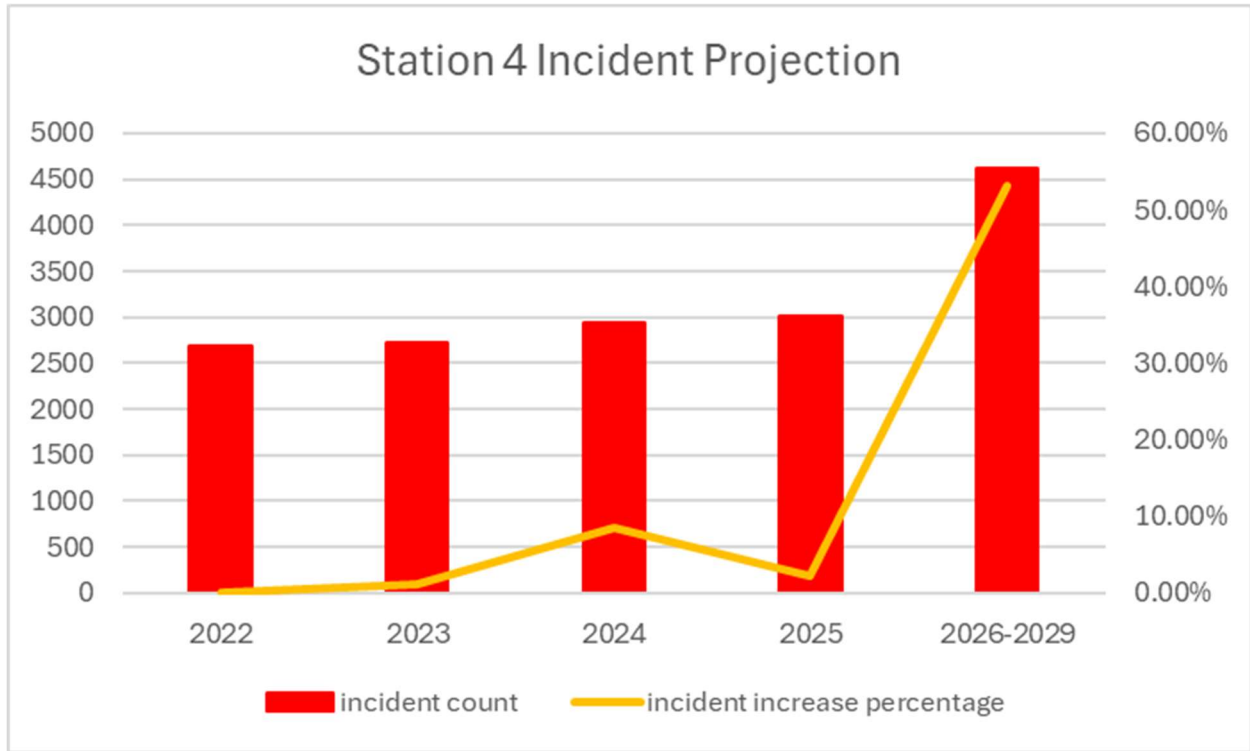
Station 4 Projected Development:

Residential Development





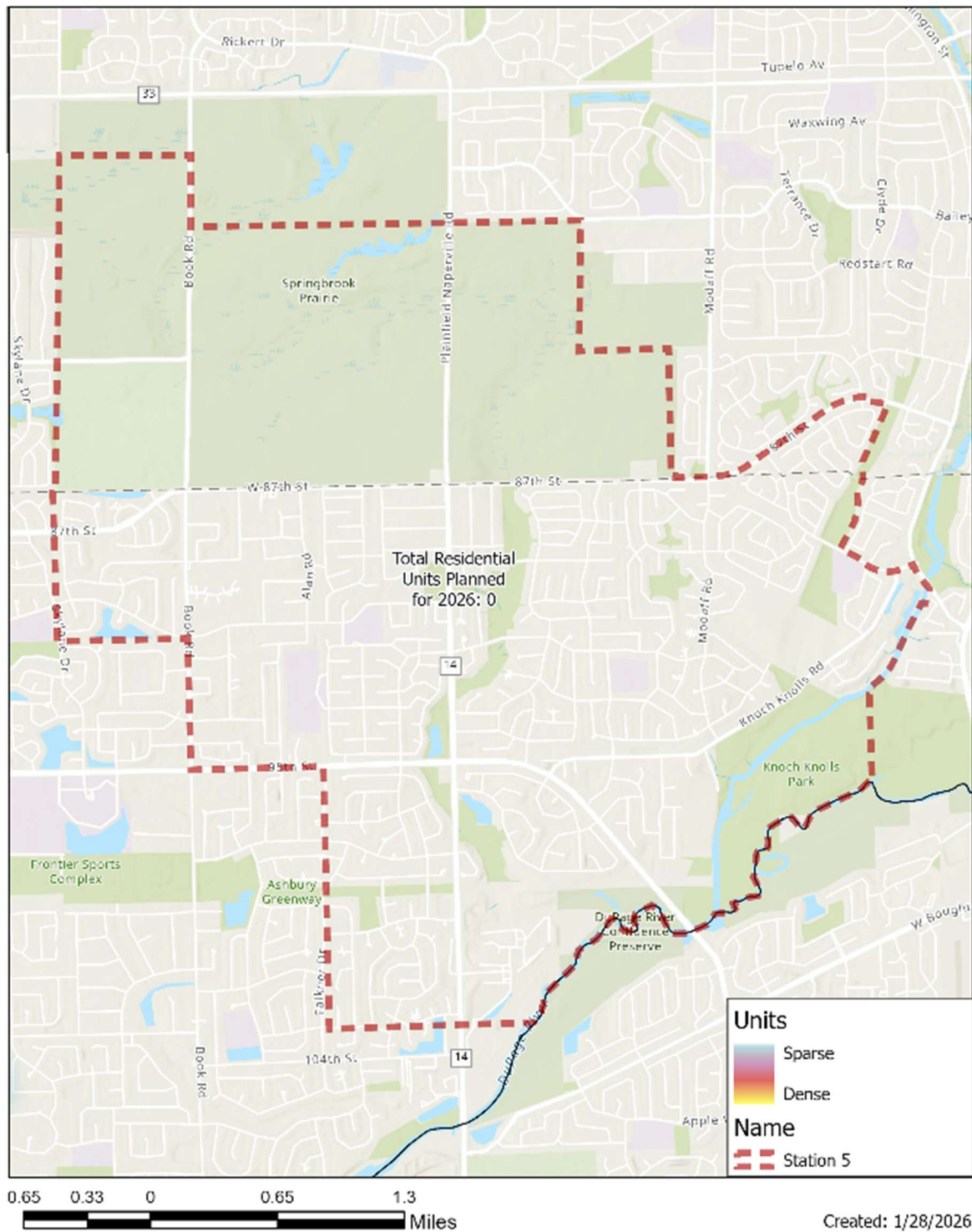
Station 4 Projected Increase:





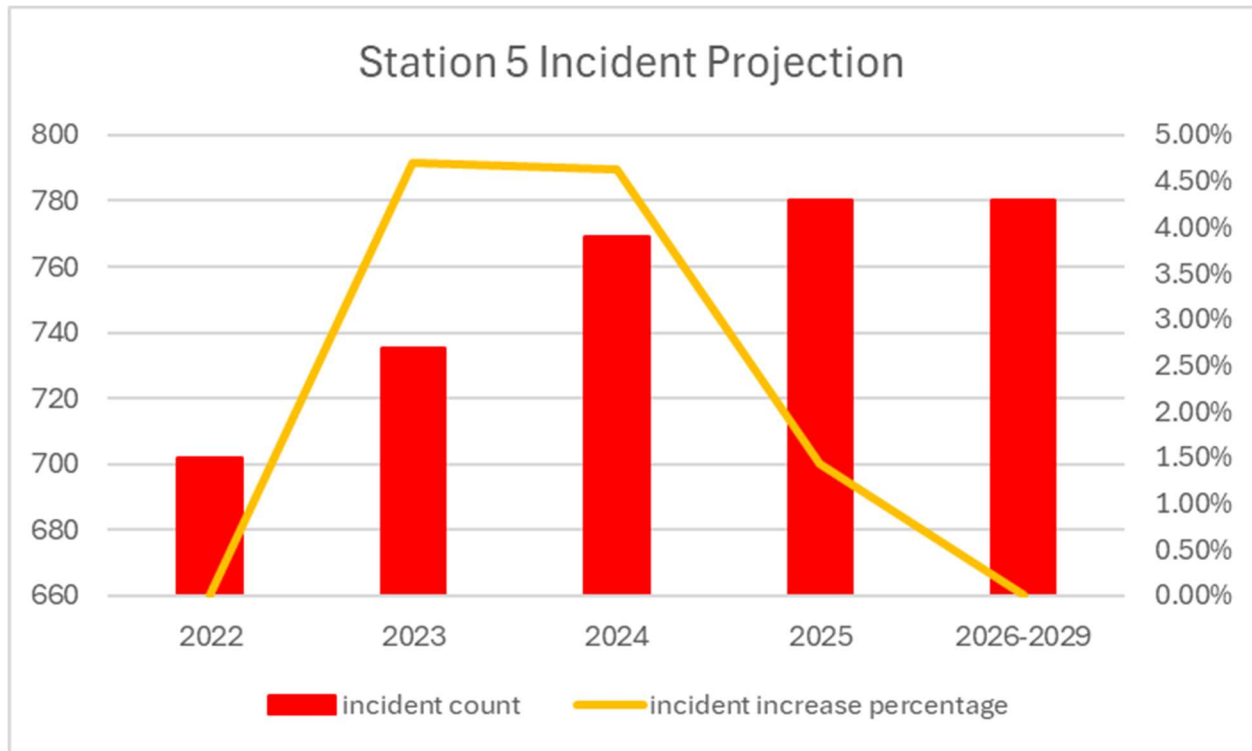
Station 5 Projected Development:

Residential Development





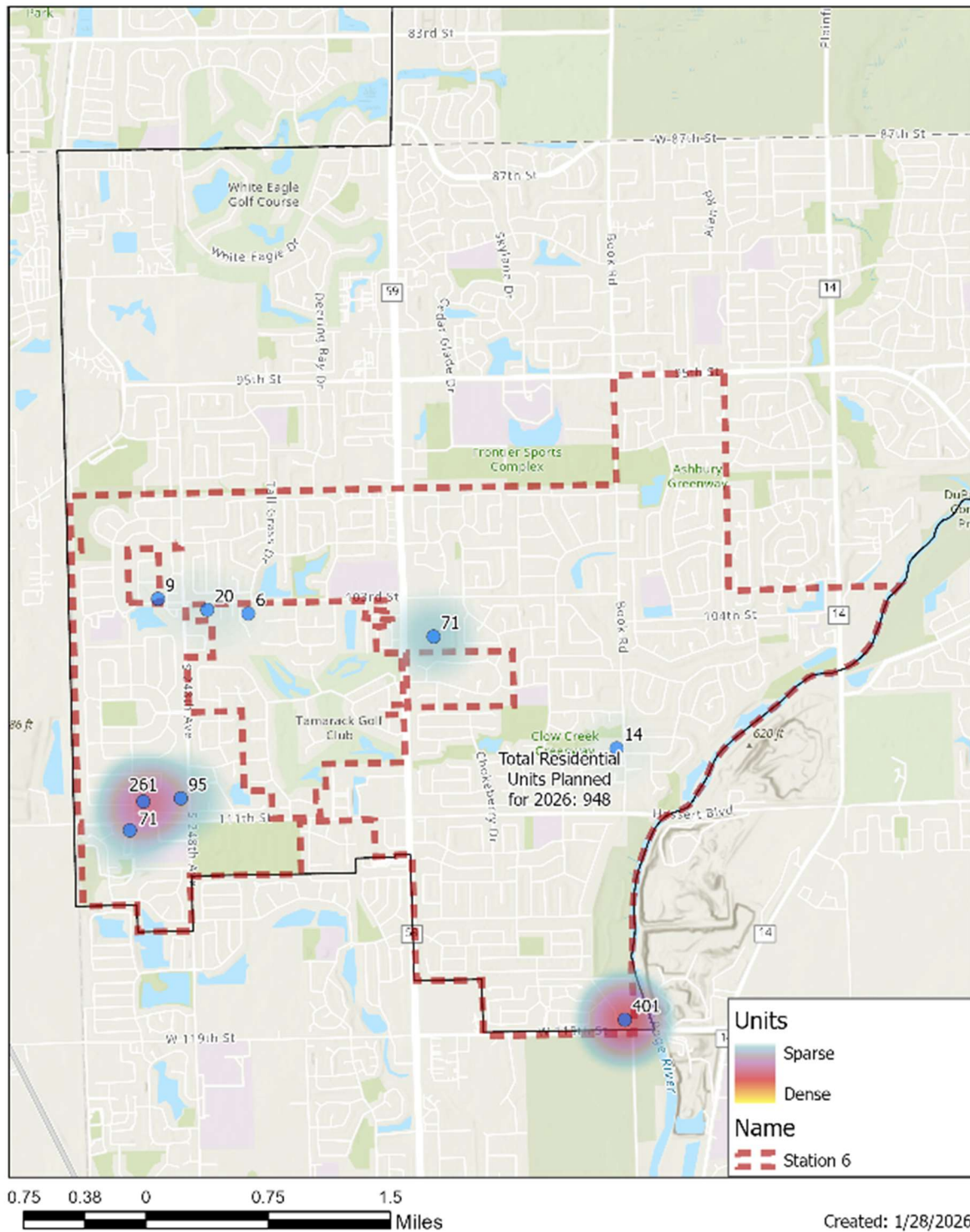
Station 5 Projected Increase:





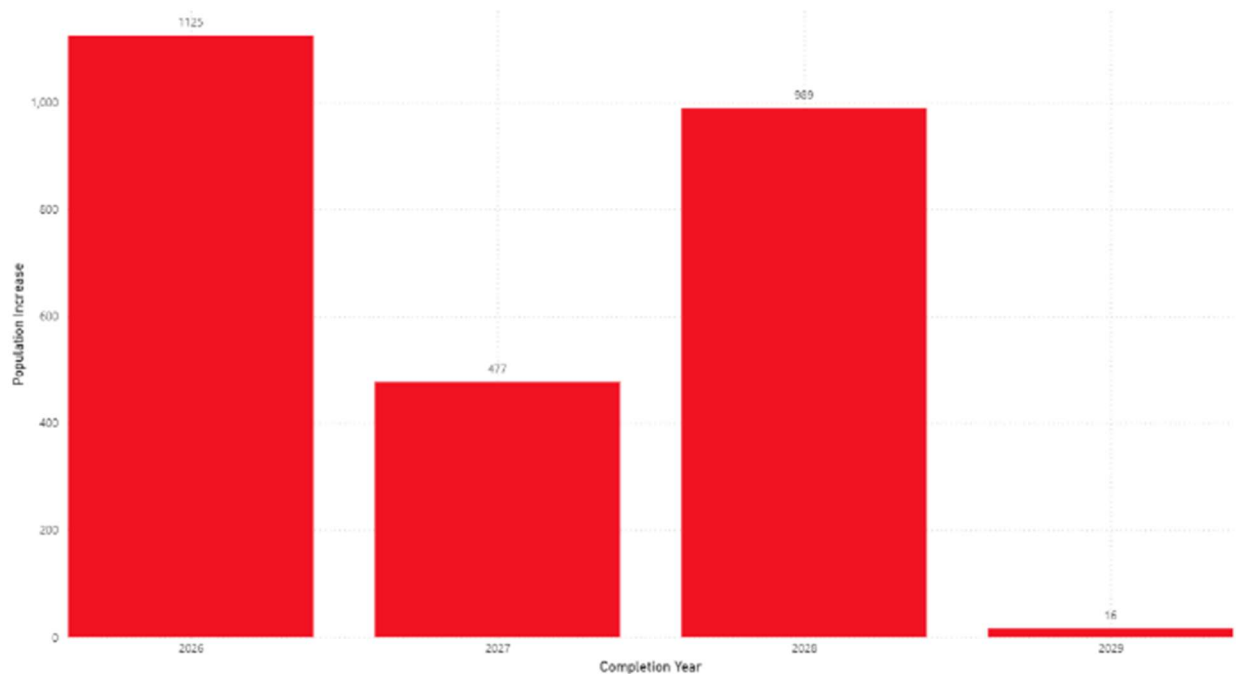
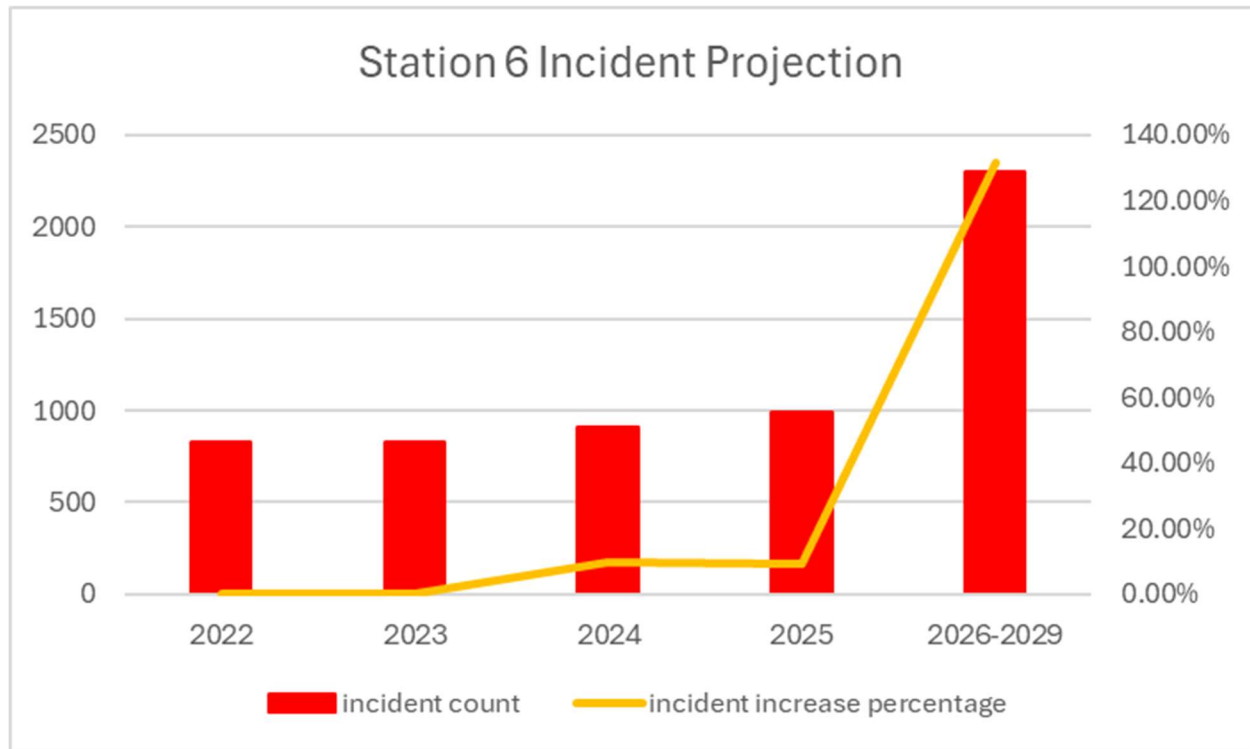
Station 6 Projected Development:

Residential Development





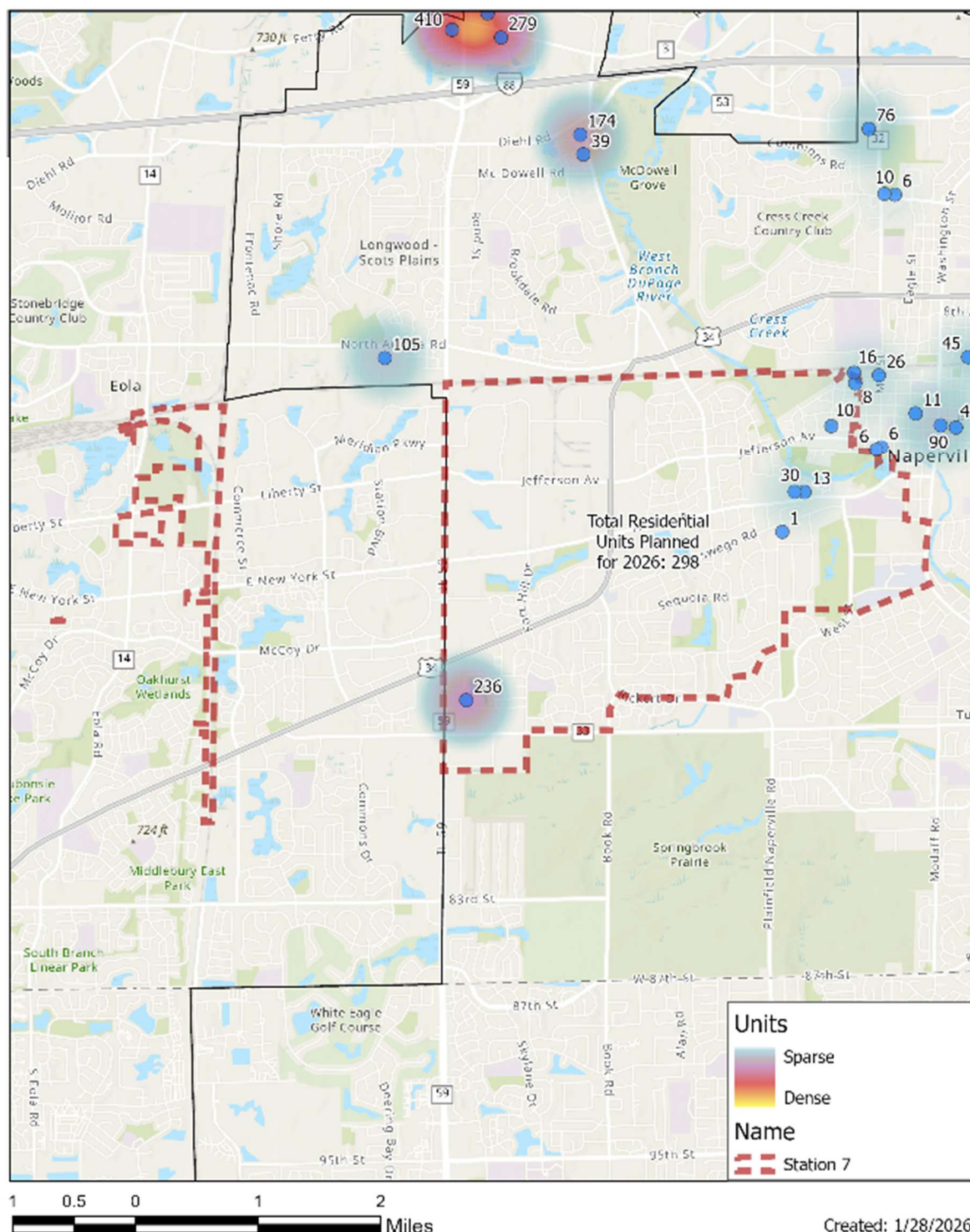
Station 6 Projected Increase:





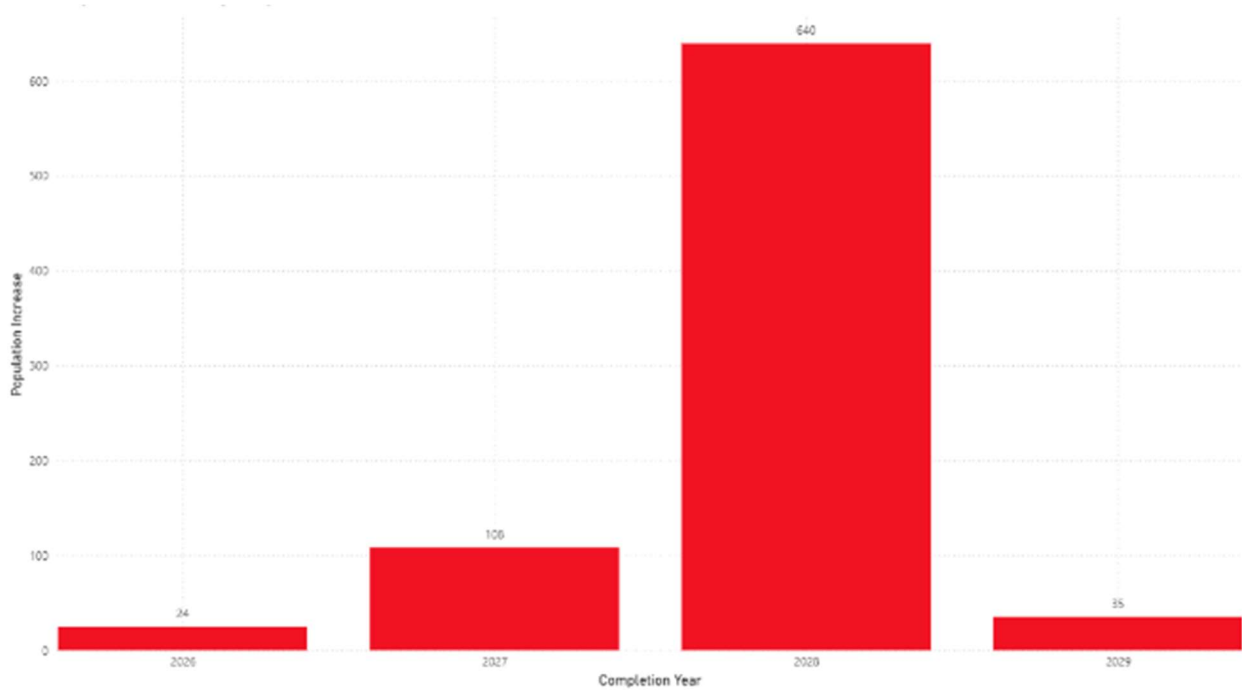
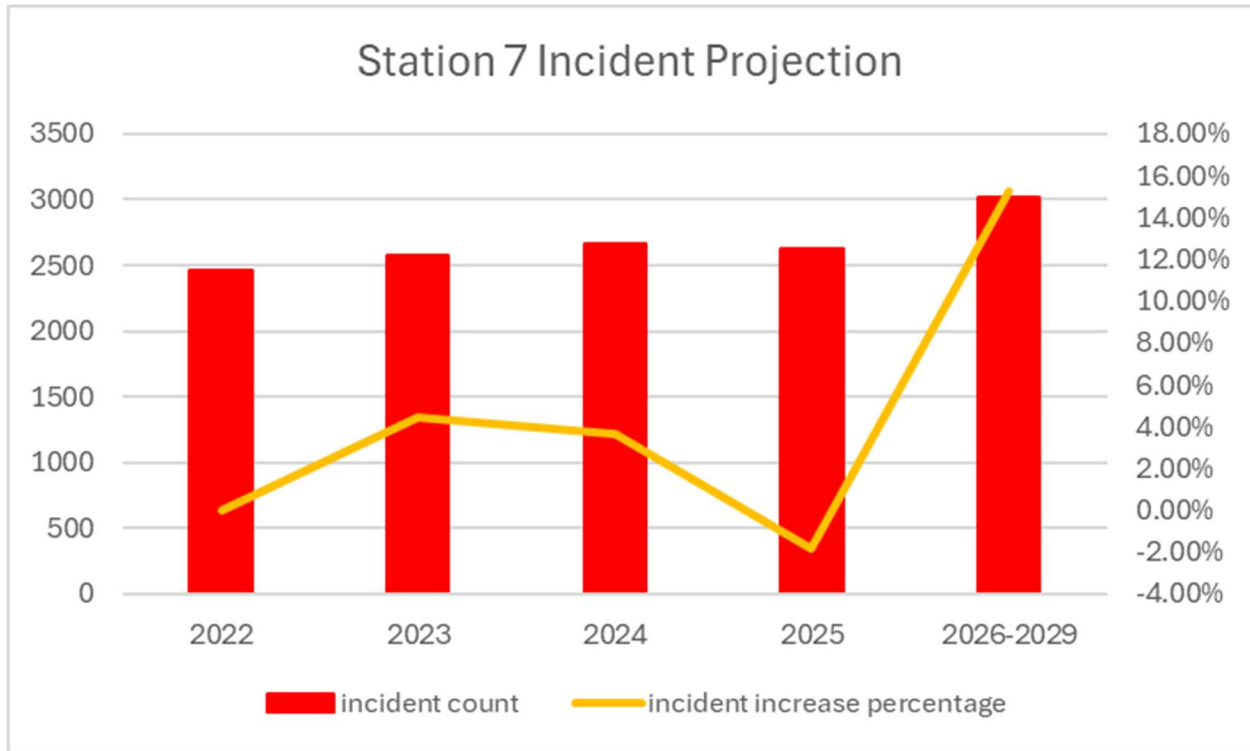
Station 7 Projected Development:

Residential Development





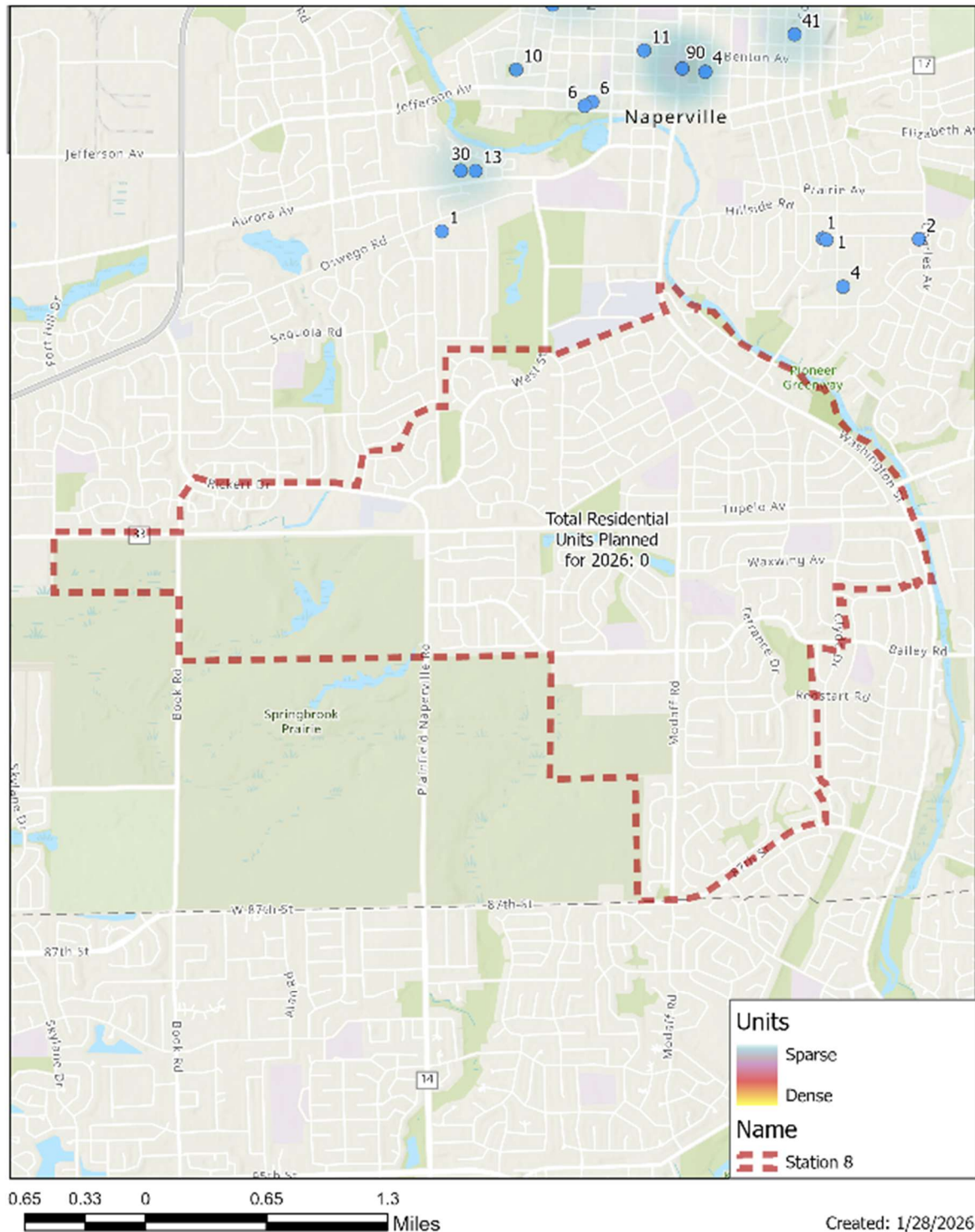
Station 7 Projected Increase:





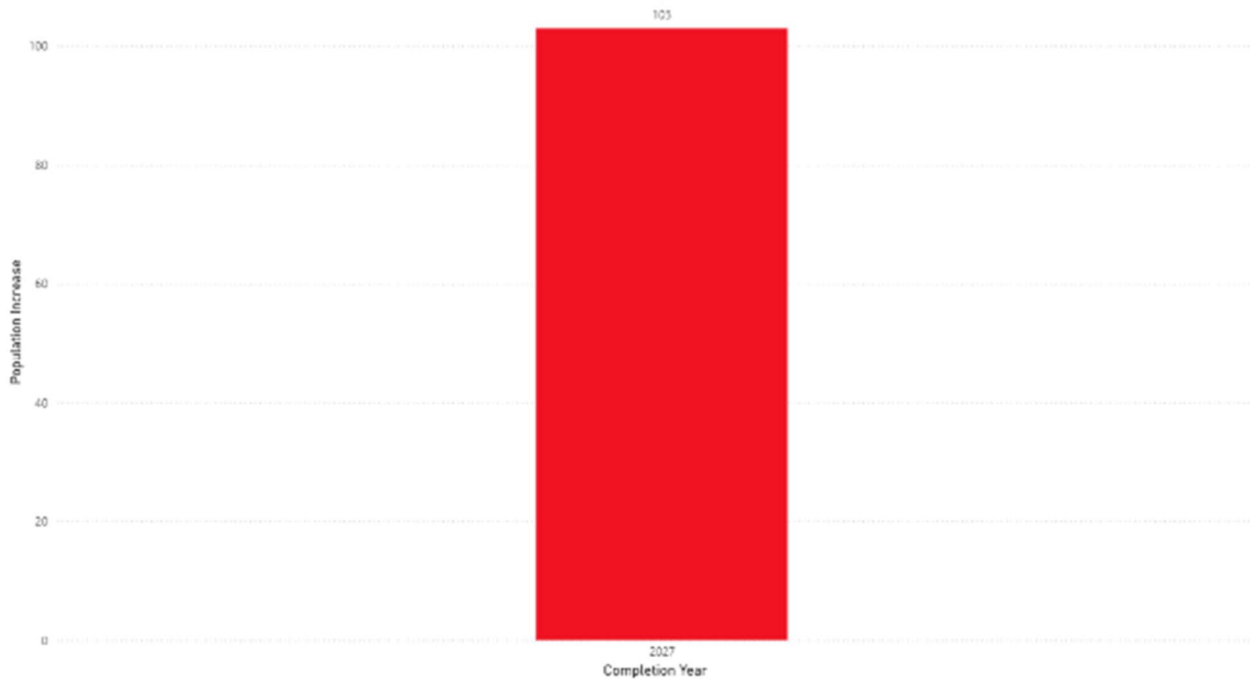
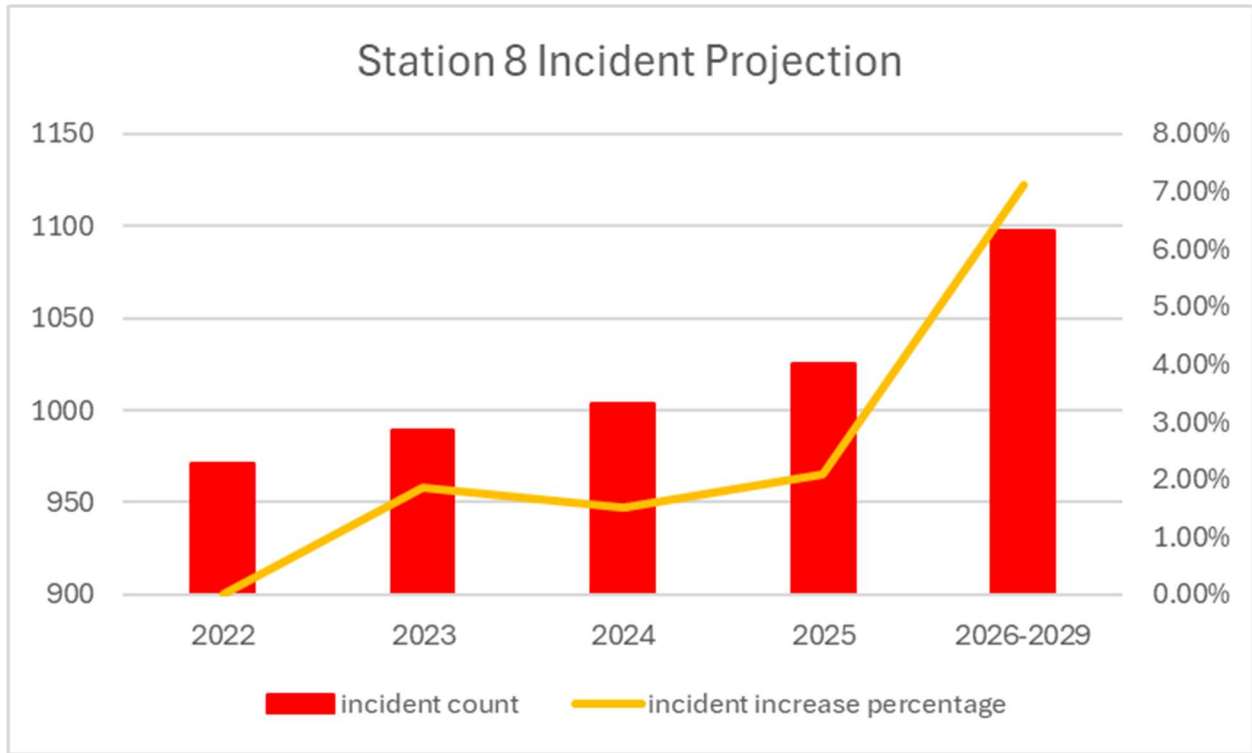
Station 8 Projected Development:

Residential Development





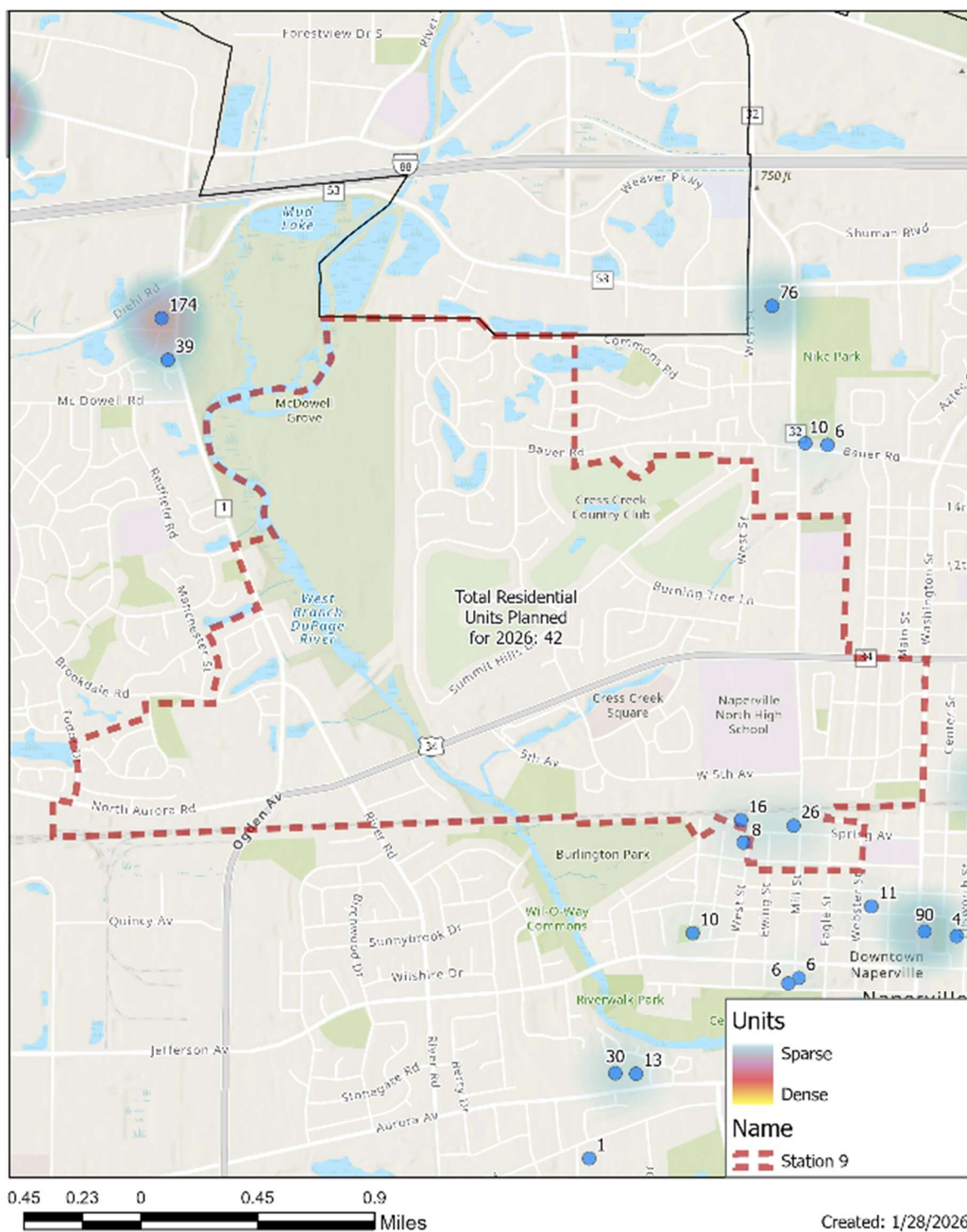
Station 8 Projected Increase:





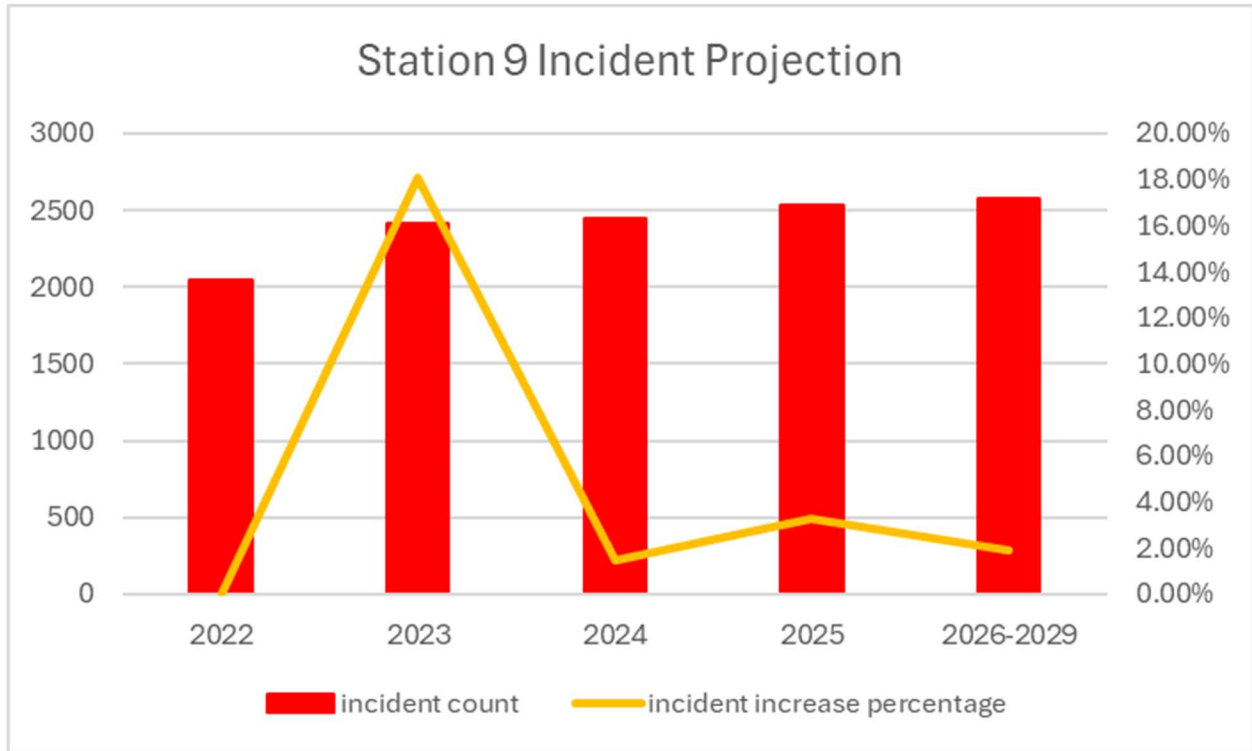
Station 9 Projected Development:

Residential Development





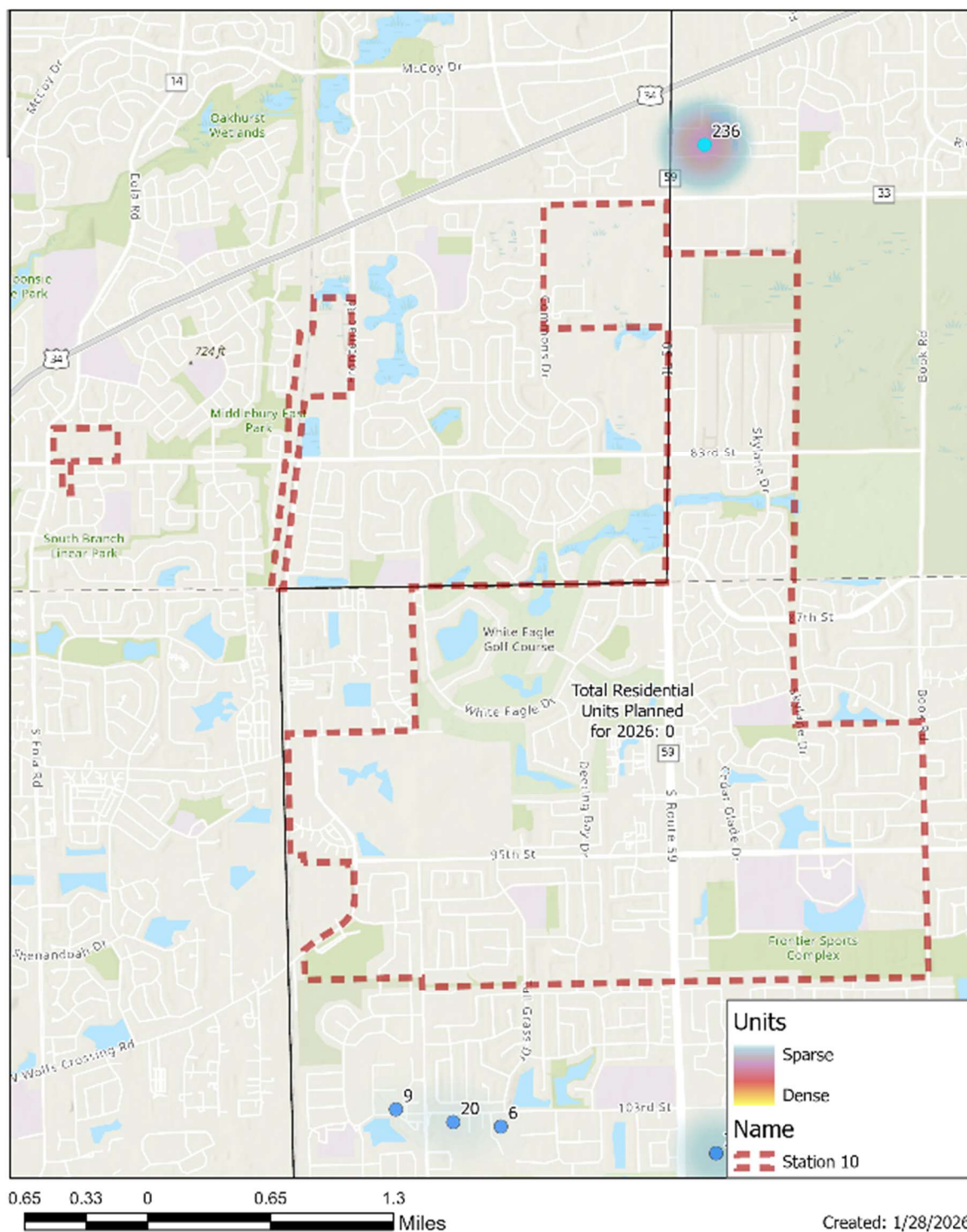
Station 9 Projected Increase:





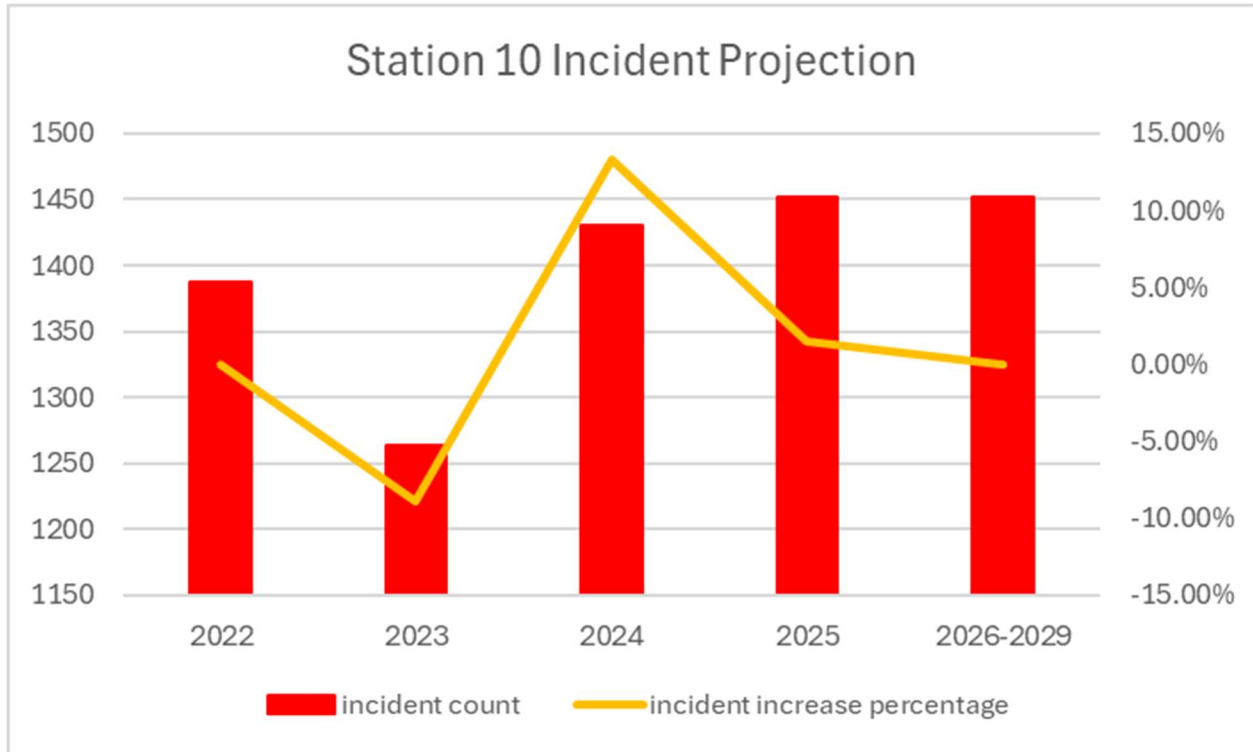
Station 10 Projected Development:

Residential Development





Station 10 Projected Increase:





SHORT TERM (12-MONTH) IMPROVEMENT PLAN

The department recognizes the importance of strong partnerships with community stakeholders and regional agencies. The department's Strategic Plan was developed through both internal and external stakeholder input. The strategic plan will continue to guide organizational priorities. The Community Services Division will conduct an annual assessment of progress toward strategic objectives and will work with senior staff to update, modify, or expand objectives as necessary to ensure continued alignment with community needs and organizational goals. Maintaining stakeholder involvement is essential to the process. The Community Services Division will meet with the stakeholder groups annually to review and evaluate the department's progress.

The department will continue collaborative planning efforts with the Emergency Communications Center (ECC) and the Naperville Police Department to implement integration of a new radio system. Full implementation is anticipated within the next 12 months. The upcoming year will focus on streamlining processes affected by the communications transition, like the morning radio test.

The department recently performed a comprehensive review and revision of response box cards. Given ongoing challenges faced by surrounding communities related to staffing, funding, and apparatus availability, the department has prioritized confirming that identified mutual aid partners can consistently provide required resources when requested. To ensure alignment with regional resource availability and mutual aid partner capabilities, the department will continually evaluate the efficacy of the box cards.

Recruitment and retention are a priority for the Naperville Fire Department. Over the course of the year, the department will participate in local advanced practice medical provider conferences to increase participation in the candidate testing process. In coordination with the College of DuPage, the department is establishing a "pipeline" for new firefighter paramedics through an extensive internship program. Finally, a pilot program introducing the fire service as a career will take place in April 2026. The program will focus on encouraging student athletes, recently separated members of the military, and Lifeguards, into careers in the fire service.



The projected increase in call volumes to districts that are already at the higher spectrum of unit utilization percentage has been identified as a potential factor contributing to gaps in service coverage. As a result, resource allocation and deployment will require further evaluation to determine whether adjustments or additional resources may be necessary to maintain effective response capabilities.

The Naperville Fire Department has seen a marked increase in call handling time. The Naperville Fire Department will meet with the ECC to review current dispatch procedures. In addition, the ECC and the Naperville Fire Department will determine whether additional training is needed or if response time benchmarks and call-processing expectations should be reevaluated.





CRA-SOC CORRELATION WITH CFAI ACCREDITATION MODEL

CC 5E. 4 The agency annually completes a formal and documented program appraisal to determine the fire suppression program's impact and outcomes and to measure its performance and progress in reducing risk based on the community risk assessment/standards of cover.

Description

The adequacy of the Naperville Fire Department's fire suppression program was under constant appraisal. After each suppression incident, either formal or informal after-action reviews were conducted depending on the magnitude of the incident. During daily staff meetings, the review of significant incidents from the previous shift was conducted.

In addition, the fire department created a Community Driven Strategic Plan for the Delivery of Fire and EMS Services. This plan outlined the anticipated community needs for a period of five years. The strategic plan was based on internal and external stakeholder feedback and was updated annually. In addition, the department analyzed its Standards of Cover annually to evaluate the effectiveness of the fire suppression program. Finally, the Naperville Fire Department published an annual report that outlined the performance for the year.

Appraisal

An appraisal of the program shows the fire department is effective in its suppression efforts. Appropriate tactics are deployed in a systematic fashion that greatly limits fire damage in the community. This is best exhibited by the low dollar loss from fire as compared to the assessed valuation of the community. Each of these accomplishments requires significant planning and serves as a successful example of the department's proper appraisal of needs. As a testament to continuously striving for improvement, the department is currently going through the ISO classification process.

Plan

The department will plan for anticipated City expansion based on information from all available resources. If necessary, every attempt will be made to modify plans to address identified weaknesses.

Members will evaluate the department's effectiveness and will modify operations where necessary to overcome any obstacles identified through the evaluation process. Lessons learned from critiques of incidents will be shared at Senior Staff meetings so that all personnel will benefit from the experience of others.

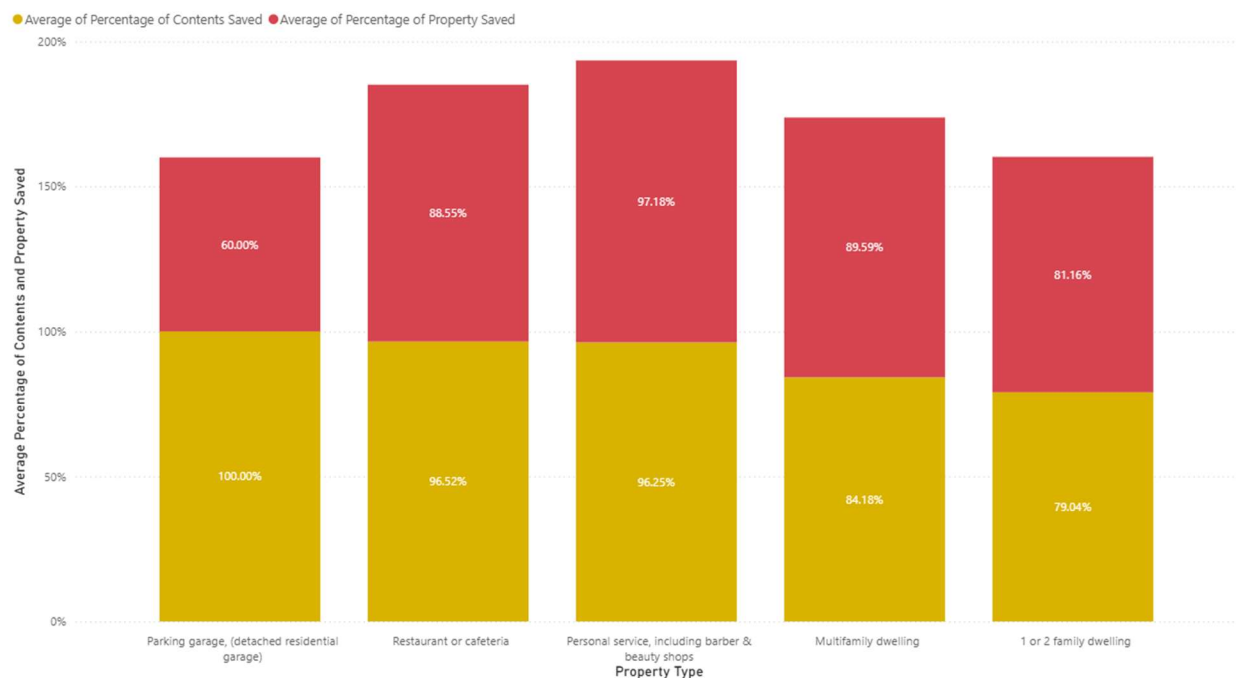
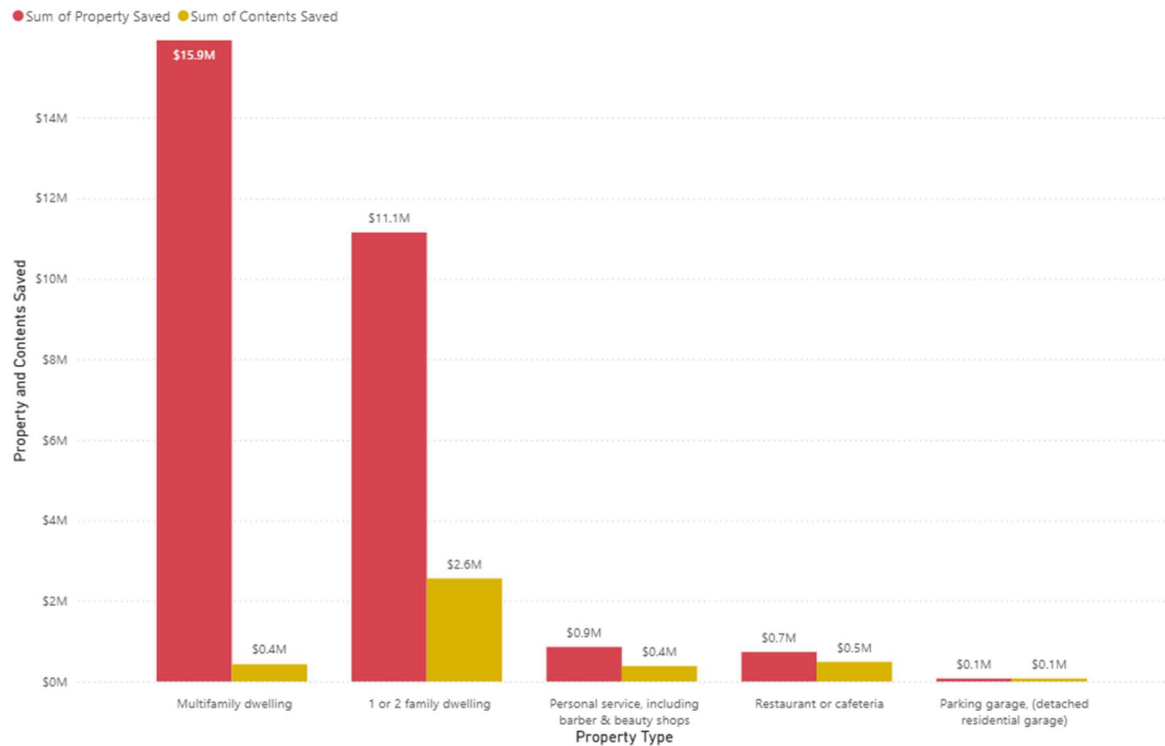
References

City of Naperville Final Budget
Capital Improvement Program Plan
Naperville Fire Department CRA-SOC
Naperville Fire Department Strategic Plan .



FIRE SUPPRESSION DATA

Property and Contents Saved by Property Type:

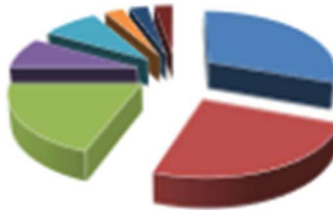




COMMUNITY DRIVEN STRATEGIC PLAN

The goals and objectives outlined in the community-driven Strategic Plan will guide the department's efforts over a five-year period. The Strategic Plan was developed in collaboration with both internal and external stakeholders. The plan establishes a clear direction for meeting the community's evolving needs and priorities.

External Stakeholder Rankings



Internal Stakeholder Rankings



- | | |
|-------------------------------|------------------------------------|
| ■ Emergency Medical Services | ■ Emergency Response |
| ■ Firefighter Training | ■ Emergency Preparedness |
| ■ Communication | ■ Community Advocate Response Team |
| ■ Community Risk Reduction | ■ Public Education |
| ■ Fire Prevention Inspections | ■ Being an Accredited Agency |



STRATEGIC PLAN OVERARCHING GOALS

1. Promote recruitment and retention within the Fire Department:

To enhance recruitment, retention, and workforce development, the Naperville Fire Department should take several key steps. These include engaging younger firefighters for insights into candidate expectations, supporting nursing and paramedic students through sponsorships and business partnerships, and expanding training in cultural competency, mental health, and evolving technologies. Strengthening the cadet program, offering more internships, and introducing fire service education in schools can build early interest. Inclusive leadership development and diversifying employee involvement in events are key to retaining staff. Recruitment efforts should focus on underrepresented groups and lateral candidates like nurses and veterans, using Naperville's strong public image and strategic military partnerships to attract talent. A strong, inclusive leadership culture will support long-term success.

2. Explore new ways to offer existing services and adapt service delivery to meet the community's needs:

As development continues to accelerate in Naperville, adding a fire station or even a satellite station may become necessary to maintain low response times and meet growing demand. While residents may be concerned about the associated costs, it's important to understand that continued growth often requires increased investment in public safety. To ensure response times remain consistent, the City may consider hiring additional personnel, adopting the latest technologies, and collaborating with neighboring communities. The expansion of programs like CART may also be needed to support an aging population and increasing mental health needs. A Standard of Cover and Community Risk Assessment (SOC-CRA) should be completed to evaluate resource placement and future station locations.

3. Promote emergency preparedness through a coordinated approach:

The Naperville Emergency Management Agency (NEMA) should take a stronger leadership role in emergency planning by actively supporting all City departments and serving as a key partner in preparedness efforts. The agency's role—and the critical support provided by its volunteers—



needs to be better communicated to the public, who are largely unaware of NEMA's disaster plans or decision-making processes. As a vital link between the City, county, and state, NEMA ensures coordinated response efforts and provides residents with meaningful volunteer opportunities. Increased public outreach and engagement, especially with downtown businesses through planning exercises and tabletop drills, would strengthen community resilience and preparedness.

4. Foster communication with internal and external stakeholders:

The Naperville Fire Department Community Risk Reduction (CRR) Division can expand its efforts by partnering with formal and informal educators. Public education on the proper disposal of hazardous materials, including the use of the city's household hazardous waste facility, can also be expanded. Citizens need training on emerging risks such as electric vehicle (EV) fires—how to prevent them and respond safely. The Naperville Fire Department has an opportunity to enhance public outreach through social media, school programs, video demonstrations in high-traffic areas, and both virtual and in-person instruction. A citywide education campaign using tools like online modules, public kiosks, and classroom-based learning can increase awareness and empower residents to take proactive steps in fire prevention. The more informed the community, the lower the likelihood of severe fire-related incidents.



DEPARTMENT MISSION / VISION / VALUES

Mission

The mission of the Naperville Fire Department is to respond to all emergency and non-emergency calls for service in a time that meets the expectations of the community and to promote safe practices through ongoing fire prevention and public education programs.

Vision

The Naperville Fire Department will cultivate a culture of compassionate, diverse, and resilient firefighters, who will strive to meet the evolving needs of the community by focusing on mental and physical health, all hazards emergency preparedness, collaborative data analysis, and implementing robust community risk reduction strategies.

Values

Honesty

Integrity



Loyalty



Commitment

Dedication



GLOSSARY

Accreditation - refers to a quality improvement model used by fire and emergency service agencies. It's a process where agencies self-assess, identify strengths and areas for improvement, and work towards meeting established community-adopted performance targets.

Community Risk Reduction (CRR) - is a comprehensive approach where fire and emergency services work with communities to identify, prioritize, and mitigate risks, promoting safety and reducing the impact of potential emergencies.

Delphi Method - a structured group communication technique used to reach a consensus of opinion on complex issues by anonymously soliciting expert opinions through multiple rounds of questionnaires.

Mission - a concrete, action-oriented description of what a company or organization does. It communicates the company's purpose to stakeholders.

Percentile - A percentile is a measure used in statistics indicating the value below which a given percentage of observations in a group of observations falls. One-hundredth parts; $90/100 = 90\%$.

Resiliencies - The organization's ability to quickly recover from an incident or events, or to adjust easily to changing needs or requirements.

Snow Card - a planning method that combines brainstorming, which produces a long list of discrete ideas, with a synthesizing step, in which ideas are grouped into thematic categories.

Strategic Goal - a long-term, measurable objective that an organization aims to achieve within a specific timeframe (usually 3-5 years) to guide its overall direction and resource allocation.

Emergency Communications Center - a central communications facility used during emergencies to coordinate information, resources, and response activities.



Emergency Management Agency - a governmental agency responsible for coordinating efforts to prepare for, respond to, and recover from emergencies and disasters.

External Stakeholder - a person, group, or organization that isn't directly involved in a business or project but has a stake in its outcomes or is affected by its actions.

Internal Stakeholder - individuals or groups who have a vested interest in a company or project because they are directly involved with it, such as employees, managers, board members, or owners.

Strategic Planning - a process where organizations define their future direction and how they will achieve it, including setting goals, developing strategies, and implementing actions.

Values - an organization's core beliefs and principles. Values guide its actions, decision-making, and interactions with stakeholders.

Vision - a statement that defines an organization's long-term goals and aspirations, outlining what the organization hopes to achieve in the future. It serves as a guiding principle, providing direction and inspiration for internal decision-making and communicating the organization's philosophy to stakeholders.



REFERENCES

Bengtsson, L.-G. (2014, February 16). *Enclosure fires - chapter 1*. CTIF.

<https://ctif.org/news/enclosure-fires-chapter-1>

CPSE. (2025). *Quality Improvement for the Fire and Emergency Services* (2nd ed.). Center for Public Safety Excellence.

Friedland, S. (1999). *Naperville Fire Department 125th Anniversary*. Walsworth Publishing.



CRA-SOC APPROVAL

The Community Risk Assessment – Standard of Cover (CRA-SOC) is a critical document for the delivery of emergency and non-emergency services within the community. The document clearly defines the community risk and how the Naperville Fire Department will respond to each. Under Criterion 2D.8 of the 11th edition of the CFAI Accreditation Model, the department must seek approval of the CRA-SOC from the Authority Having Jurisdiction (AHJ).

X

Scott Wehrli
Mayor

X

Doug A. Krieger
City Manager

X

Mark Puknaitis
Fire Chief