COTTAGE GROVE CITY COUNCIL January 10, 2026

RIVER OAKS GOLF COURSE AND EVENT CENTER
11099 US 61 SOUTH
COTTAGE GROVE, MINNESOTA 55016

- 8:00 AM

1 Doors Open & Continental Breakfast (7:30 AM)

2 Welcome by Mayor Myron Bailey and City Administrator Jennifer Levitt (8:00 AM)

A 2025 Strategic Plan Update

3 Warm-up: Wins for the Year. (8:15 AM)

4 Discussion: Fund Balance Allocation and Future Revenue (8:45 AM)

5 15-minute Break (9:15 AM)

6 Community Development Strategic Plan (9:30 AM)

A Community Development Department Staffing Report

7 Discussion: City Development Update (10:15 AM)

A Economic Development Strategic Plan Report

8 City Landscaping (11:00 AM)

A 2025 Strategic Plan - Landscaping

9 Update: Public Works/Parks Building Relocation Project (11:15 AM)

A Public Works & Parks Building Relocation Project

10 Lunch and Discussion on City Communication Strategy (11:30 AM)

A 2026 Communications Priorities

11 Fire Department Standard of Cover Study Presentation (12:15 AM)

A Fire Safety Standard of Cover Study

12 Cottage Grove Parks, Today and Tomorrow (1:15 PM)

A East Ravine Park Planning

13 Break (1:45 PM)

14 Financial Management Plan (2:00 PM)

A Financial Management Plan Review

15 Recap and Closing (3:00 PM)

16 Adjournment (4:00 PM)

City Council Action Request

2.A.

Meeting Date	1/10/2026
Department	Administration
Agenda Category	Action Item
Title	2025 Strategic Plan Update
Staff Recommendation	Receive the 2025 Strategic Plan Update
Budget Implication	N/A
Attachments	1. 2026 Strategic Plan Report



Cottage Grove

Where Pride and Prosperity Meet

Strategic Plan Report

December 29, 2025

City of Cottage Grove

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Executive Summary

On January 25, 2025, the City of Cottage Grove convened a strategic planning session. This collaborative effort produced a comprehensive strategic plan designed to guide the City's priorities and initiatives throughout the year.



The plan is built around three core pillars: Enhancing Quality of Life for Residents, Thriving Business and Tourism Environment, and Remaining an Employer of Choice. These focus areas are of greatest importance to the City of Cottage Grove in the coming year. Each pillar is supported by four high-level performance targets that define expected outcomes and how success will be measured.

In addition, the plan outlines four strategic directions: Engaging Residents Where They Are, Continuing Sustainable Growth, Making Cottage Grove a Recreation Destination, and Remaining an Employer of Choice. Each direction includes key success factors used to evaluate progress toward the intended goals.





The planning effort began with a large group discussion on January 25, 2025. The city's leadership team along with city council held a full day strategic planning session. They developed a set of priorities, key outcomes, and performance targets.

Based upon those priorities, the city's management team identified a set of strategic initiatives and develop detailed action plans. The mission statement, three pillars, strategic directives and success factors are summarized on the following page.

Strategic Plan Summary 2025

MISSION STATEMENT

To promote community pride and create a high quality of life by providing excellence in the delivery of public service to residents and businesses.

THREE PILLARS

Enhancing Quality of Life for Residents	Thriving Business and Tourism Environment	Remain an Employer of Choice

SUCCESS FACTORS

Cottage Grove strives to provide life cycle housing for all residents through diverse housing options.	Cottage Grove aims to create a dynamic business environment which generates jobs and increases tax base.	Cottage Grove strives to be a workplace that is reflective of the community.
Provide positive, responsive, and professional interaction with all services offered by the city while maintaining a safe and thriving community.	Cottage Grove partners with the local Chamber of Commerce to support local businesses & creates an environment to succeed.	Cottage Grove seeks to recruit and retain top talent, offering ongoing training and career opportunities.
Cottage Grove has a wide variety of premier community events, recreational amenities & natural open spaces for everyone to enjoy.	Cottage Grove Public Safety provides proactive community-oriented services to assist businesses.	Cottage Grove has achieved an organizational culture dedicated to efficient operations & excellent delivery of services.
Assure sustainable environmental standards & health practices including providing treated drinking water to meet all state & federal standards for PFAS.	Cottage Grove Convention & Visitors Bureau supports the hotel & event community locally to promote tourism in Cottage Grove.	Cottage Grove is a good financial steward which leads to a stable work environment.

STRATEGIC DIRECTIONS

Engaging Residents Where They Are	Continuing Sustainable Growth	Making Cottage Grove a Recreation Destination	Remaining an Employer of Choice

SUCCESS FACTORS

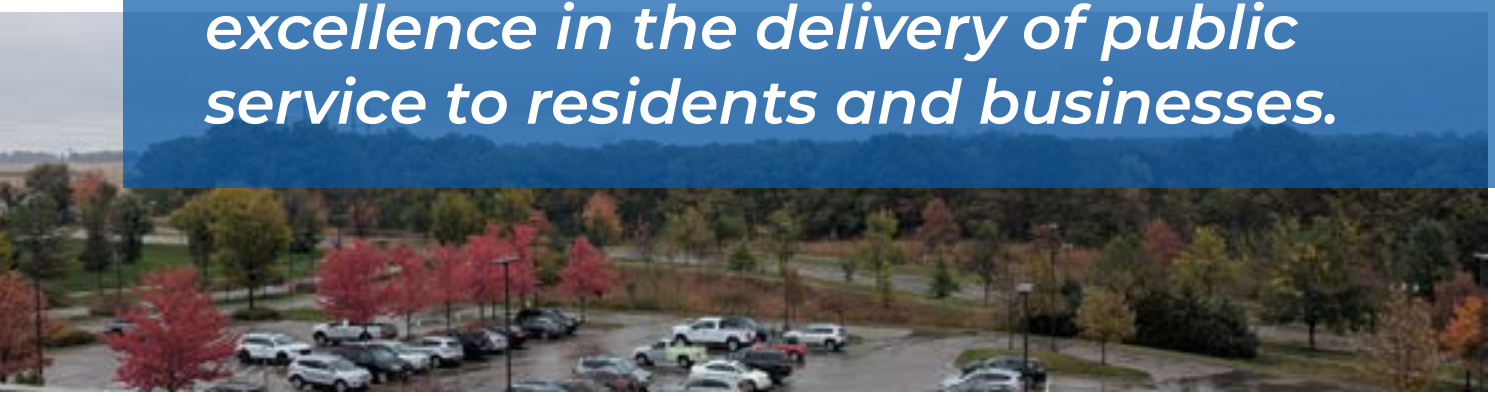
Create strategic video communications that demystify city operations and humanize City government.	Continue to aggressively pursue state and federal funding for the County 19A and 100th Street Realignment Project.	Pursue development of Mississippi Dunes Park with pursuit of 3M Settlement and MN DNR grant funding.	Therapy Dog
Update and refresh the city's website and make it mobile friendly.	Implement 3M settlement projects while maintaining an interim treatment plan that meets all PFAS standards.		Front Desk and Chambers Security Plan
Conduct an ongoing review of social media performance to ensure platforms & content meet the needs of the organization, including potential use of new/different platforms.	Work to facilitate the development of Shoppes at Cottage View with an RFP for a hotel.	Care for and/or reinvest into current recreational assets, including Kingston Park Building and Ice Arena	Employee Recognition Programs (Years of Service, Police, Fire)
Develop crisis communication plan.	Remain a Step 5 GreenStep City by continuing to improve sustainability across a variety of metrics.	Study East Ravine Parks & Trail Plan to assure both recreational service & financial preparedness for impending development	Develop training programs for employees at all levels such as the Management & Leadership Development Academy & the Learning to Lead Academy, Book Studies, and Guest Speakers.
Create and conduct community survey in 2025.	Develop an EDA 10-year HRA levy plan and policy for LAHA Funds.	Create unique recreational places and spaces that are signature landmarks to Cottage Grove.	Continue to grow and enhance employee engagement programs. (GOLD, Lunch and Learn, Safety Committee, Health and Wellness)
Create a city podcast.	Develop a Financial Plan for the development of the East Ravine Infrastructure.		Continue retention interviews and new hire interviews.
Implement CVB Strategic Plan	Work with consultant to review Standards of Cover within the Fire Department.		Continue the use of the Financial Management Plan
	Continue to invest in Public Safety Technology.	Leverage key recreational facilities and park buildings to be points of pride for the community and improve the local economy	3R - Fire, Positive Impact Team - Police
	Develop Master Plan for Grey Cloud Island		Create a new Insurance Committee
	Broadband/Fiber RFP		

Our Mission





To promote community pride and create a high quality of life by providing excellence in the delivery of public service to residents and businesses.





Pillar 1:

Enhancing Quality of Life for Residents



GOAL

Cottage Grove strives to provide life cycle housing for all residents through diverse housing options.

Year-End Update

With the completion of the Maxfield Market and Housing Study early this year, the City has supported a diverse array of development projects to support the market for life cycle housing stock. A final LAHA agreement with Real Estate Equities for their affordable multi-family project was completed as well as coordination to secure LCD grant funding for the project. A final TIF agreement for the Roers affordable multi-family project was also approved.

GOAL

Provide positive, responsive, and professional interaction with all services offered by the city while maintaining a safe and thriving community.

Year-End Update

In several different surveys (Police Services Survey, POLCO National Community Survey, etc.) the City of Cottage Grove continues to exceed in satisfaction ratings. The continued community outreach provided by Public Safety allows more connection with the residents and creates a more respectful and safe community. Following the implementation of the Case Management Unit (CMU), there has been a 89% reduction in chronic calls for service.

Pillar 1:

Enhancing Quality of Life for Residents



GOAL

Cottage Grove has a wide variety of premier community events, recreational amenities and natural open spaces for everyone to enjoy.

Year-End Update

Cottage Grove continues to plan, support, and host a multitude of events (Strawberry Fest, Food Truck Festival, Hometown Holiday, etc.) for our residents that also bring in visitors from all over the metro-area and beyond. The CVB has started campaigns on social media to continue to highlight the amenities available to the public.

The early snow this season has allowed the ability to feature more of the recreational opportunities available to residents and visitors throughout the community.

GOAL

Assure sustainable environmental standards and health practices including providing treated drinking water to meet all state and federal standards for PFAS.

Year-End Update

Cottage Grove reached a major milestone in 2025 as we continue to provide safe drinking water for our entire community. This past year saw the completion and commissioning of the Low Zone Water Treatment Plant, the first of two permanent PFAS water treatment plants that will serve our City for generations to come. In addition, we continue to operate five interim water treatment plants that allow us to provide fully treated water to our community.

Pillar 2:

Thriving Business and Tourism Environment



GOAL

Cottage Grove aims to create a dynamic business environment which generates jobs and increases tax-base.

Year-End Update

The City continues to work with area businesses to address needs such as land acquisition for growth. The City is also working to address barriers for employees such as childcare, available and affordable housing, and transportation.

GOAL

Cottage Grove partners with the local Chamber of Commerce to support local businesses and creates an environment to succeed.

Year-End Update

The City continues to be a strong Chamber partner and has helped to implement several ribbon cuttings and grand openings this past year including Vangz, Walmart, Buffalo Wild Wings GO, HORSCH, Casa Mia, and more.

GOAL

Cottage Grove Public Safety provides proactive community-oriented services to assist businesses.

Year-End Update

Public Safety now has 12 operational Flock License Plate Reader Cameras in the City and is already seeing the benefits of the technology. Public Safety also renewed their SRO contract with South Washington County Schools.

GOAL

Cottage Grove Convention and Visitors Bureau supports the hotel and event community locally to promote tourism in Cottage Grove.

Year-End Update

Discover Cottage Grove continues to make progress implementing the strategic plan created in partnership with ChandlerThinks, including the design of a new website.

Although the Hotel RFP did not receive any official submissions, the economic development team continues to discuss the available property with developers and hoteliers.

Pillar 3:

Remain an Employer Of Choice



GOAL

Cottage Grove strives to be a workplace that is reflective of the community.

Year-End Update

Cottage Grove staff continues to track data on various demographics of applicants, interviewees and new hires. This data is used to inform where advertising of job postings takes place in order to better reflect our community.

GOAL

Cottage Grove seeks to recruit and retain top talent, offering ongoing training and career opportunities.

Year-End Update

The City continues to offer regular Lunch and Learns, focus on annual individualized and department specific training plans, and encourages staff to further their skills. Regular retention and new hire interviews give management continual feedback on what is going well and what needs improvement. These interviews also let employees know that their voices are being heard as they are able to see the changes in programs and policies as a result.

Another way City management receives feedback from employees is with the Employee Survey. This survey offers employees an anonymous way to express successes and concerns that might not be known to the rest of the City.

In addition to employee feedback, managers are supplied an article monthly with a leadership and management focus. The most recent edition was on hiring and assessing for cultural add in an organization.

Pillar 3:

Remain an Employer Of Choice



GOAL

Cottage Grove has achieved an organizational culture dedicated to efficient operations and excellent delivery of services.

Year-End Update

The City of Cottage Grove continues to operate in a way that allows and encourages regular feedback loops including new hire interview and employee retention interviews.

JumpStart, Cottage Grove's Employee On-boarding program kicked off in May. Once a month, employees meet with one of the six departments throughout the City to learn more about that department. At the start of the program, participants receive a tumbler that acts as their passport as they move from department to department collecting department specific stickers. To date, the program has graduated 9 participants.

Nominated by numerous employees and others outside the organization, the City of Cottage Grove won Large Employer of the Year and River Oaks was recognized as Small Employer of the Year from the Cottage Grove Area Chamber of Commerce at their Evening of Excellence event.

GOAL

Cottage Grove is a good financial steward which leads to a stable work environment.

Year-End Update

Under the direction of the Finance Team, the City received a AAA bond rating for the 2025A Debt Issuance. Cottage Grove continues to follow the 10-Year Financial Management Plan. The 2024 Audit returned with no audit findings and the City of Cottage Grove received a Certificate of Achievement in the Financial Report for the 34th year in a row.

Strategic Direction 1:

Engaging Residents Where They Are



GOAL

Create strategic video communications that demystify city operations and humanize City government.

Year-End Update

Communications produces the Weekly Update videos that post every Friday. A new video series featuring the Fire Department has also been a hit. Finally, there are the 70+ videos created in partnership with TrueLens, formerly SWCTC. The Food Truck Festival promotional video garnered 235,450 views, and the "Guess That 'Stache! Real or Fake Firefighter Mustaches" and "How Cottage Grove Got Their Street Names" videos were also successful.

GOAL

Continue to update and refresh the city's website and make it mobile friendly.

Year-End Update

The City worked with Civic Plus to refresh the website. The new website went live in October 2025.

GOAL

Conduct an ongoing review of social media performance to ensure platforms and content meet the needs of the organization, including potential use of new/different platforms.

Year-End Update

Communications staff have conducted a thorough review and tracking of social media metrics throughout the year to determine next steps, best practices, and recommendations. Those recommendations will be included in the materials for the 2026 Strategic Planning session, and, if approved, implemented beginning in 2026.

Strategic Direction 1:

Engaging Residents Where They Are



GOAL

Develop crisis communication action plan.

Year-End Update

The project kicked off with Eckberg Lammers in early May. The crisis communication plan will likely complete by Q1 of 2026. The plan would have been completed in 2025 but was delayed for several months due to unforeseen circumstances outside of the City's control.

GOAL

Create and conduct community survey in 2025.

Year-End Update

Residents participated in the POLCO National Community Survey this Spring. The final report was delivered to the City Council in June. Survey results continue to inform the staff on the wants and needs of the community.

GOAL

Create a city podcast.

Year-End Update

The podcast launched May 30, 2025. Episodes of The Grovecast will drop monthly and are available on most streaming platforms.

GOAL

Implement CVB Strategic Plan.

Year-End Update

Several items were implemented including updates to the CVB website, "Bring a Friend" campaign for Strawberry Fest, new marketing initiatives beginning in July (Patio Week), and staff are exploring outreach opportunities via regular local tourism industry meetings, awards ceremonies, tourism summit, etc. Several more recommendations from the plan are under consideration.

Strategic Direction 2:

Continuing Sustainable Growth



GOAL

Continue to aggressively pursue state and federal funding for the County 19A and 100th Street Realignment Project.

Year-End Update

Cottage Grove continues to work cooperatively with Washington County in our effort to fully fund the County 19A & 100th Street Realignment Project. Last December, staff completed an application to the MnDOT Local Roadway Improvement Program in the amount of $1,250,000 for the project. City staff are also working on a federal BUILD grant application that will be submitted in early 2026. Finally, Cottage Grove is working with Washington County on a $22,500,000 State Bonding request through the 2026 legislative session.

GOAL

Implement 3M settlement projects while maintaining an interim treatment plan that meets all PFAS standards.

Year-End Update

During the summer of 2025 construction began on Intermediate Zone Water Treatment Plant, the second and larger of two permanent water treatment plants that are funded through the 3M Settlement. This is the largest construction project undertaken by Cottage Grove in the City's history. The plant will be substantially complete by March of 2028, and fully complete by March of 2029. In 2025, the raw water line that will transmit untreated water from Wells 11 & 12 to the Intermediate Zone Water Treatment Plant was also completed.

Strategic Direction 2:

Continuing Sustainable Growth



GOAL

Work to facilitate the development of Shoppes at Cottage View with a RFP for a hotel.

Year-End Update

The EDA purchased a 3.59-acre property at 9430 East Point Douglas Road S. and hired HVS to complete a leakage study to determine the impact of revenues being lost as a result of the lack of hotel accommodations supporting both business travelers and growing league play within the community. The City secured EPA funds through Washington County to complete Phase 1 and 2 ESA for the site. Although the Hotel RFP did not elicit any responses, staff continues to pursue conversations with developers and hoteliers. Blight Report and grant funding are being pursued.

GOAL

Remain a Step 5 GreenStep City by continuing to improve sustainability across a variety of metrics.

Year-End Update

City staff were informed in late April that Cottage Grove had received GreenSteps 4 & 5 status again for 2025. The engineering team, in coordination with other departments, tracks and documents all of the City's ongoing progress in this program. Step 4 is achieved each year by continuing to track certain metrics, and Step 5 is achieved by showing continued improvement.

GOAL

Develop an EDA 10-year HRA levy plan and policy for LAHA Funds.

Year-End Update

Real Estate Equities will be the first project in the City to utilize LAHA dollars, rather than TIF. The increased tax capacity from the development will be available immediately instead of at the end of the TIF district, which could be up to 25 years. Conduit debt was also issued in order to bring this affordable housing project to the community.

Strategic Direction 2:

Continuing Sustainable Growth



GOAL

Develop a Financial Plan for the development of the East Ravine Infrastructure.

Year-End Update

In February 2025, the City Council authorized a feasibility study for Ravine Parkway from 85th Street to Keats Avenue, through the East Ravine. As part of this process a final alignment of the roadway was determined, which will best serve development in the area. Estimated costs and assessments were also calculated for this new collector roadway. This study will be used to guide construction of the roadway as development takes place east of Keats Avenue in the coming years.

GOAL

Work with consultant to review Standards of Cover with the Fire Department.

Year-End Update

The Standards of Cover study has been completed. The Standards of Cover study will help guide strategic decisions for the fire department to include staffing, station needs and Fire/EMS vehicle needs.

GOAL

Continue to invest in Public Safety Technology.

Year-End Update

New Public Safety Technology include:

- BiPAP (advanced respiratory treatment)
- Upgraded cardiac monitors and defibrillators
- Online crime reporting form
- New tasers
- KATS-K9 training documentation software
- K9 Ballistic Vest
- Upgraded fire hoses and nozzles
- Upgraded point of care ultrasound machines
- FLOCK Cameras

Strategic Direction 2:

Continuing Sustainable Growth



GOAL

Develop Master Plan for Grey Cloud Island.

Year-End Update

This goal continues to be ongoing as the City continues to meet with the property owner who is also starting the master planning process. The City will continue to support the property owner in their coordination with other involved agencies and continue to support a land use guidance on the land use map as part of the Imagine 2050 Comprehensive Plan update to be completed in 2028.

GOAL

Broadband/Fiber RFP.

Year-End Update

City staff continue to work with two fiber companies, Gateway and Intrepid, as they install fiber throughout the City of Cottage Grove. During late summer and fall of 2025, the first neighborhoods in the City were completed. This effort will continue throughout 2026 and is anticipated to be completed in 2027.

Strategic Direction 3:

Making Cottage Grove A Recreation Destination



GOAL

Pursue development of Mississippi Dunes Park with pursuit of 3M Settlement and MN DNR grant funding.

Year-End Update

Staff submitted an initial $5M proposal for 3M Priority II Settlement Fund dollars towards park development. Proposals are being reviewed and the City was notified this summer that we qualified for the full application process. Final awards are expected by Spring 2026.

In the meantime, the City partnered with DNR Fisheries for an agreement to provide a fishing pier at this location and are also collaborating with DNR Parks and Trails for the future boat launch. An Outdoor Recreation Grant for $350K has been secured. These funds are administered by the DNR and sourced from the Federal Land and Water Conservation Fund and State Environment and National Resources Trust Fund.

GOAL

Care for and/or reinvest into current recreational assets including Kingston Park Building and Ice Arena.

Year-End Update

- The Kingston Park building plans are 100% complete and ready for bid upon Council approval. The Kingston Park site power upgrades were completed over the summer.
- Cottage Grove Ice Arena launched its reinvestment planning process with completion of space needs and concept planning.
- The Woodridge Park ice rink was reconstructed to include pickle ball courts.
- Picnic shelters at Pine Glen Park and Pine Tree Pond Park were constructed as well. Playgrounds were replaced this year at Hardwood Park and Belden Park. The old structures were donated to Kids Around the World.

Strategic Direction 3:

Making Cottage Grove A Recreation Destination



GOAL

Study East Ravine Parks & Trail Plan to assure both recreational service and financial preparedness for impending development.

Year-End Update

Parks, Recreation & Natural Resources Commission reviewed the master plan and made recommendations to Council in May. There is a Letter of Intent with Geis and South Washington Watershed District for acquisition of property near Vandenberg Lake. Staff continues to strategize and communicate with potential partners to prepare for necessary park land acquisition in the East Ravine development area.

GOAL

Create unique recreational places and spaces that are signature landmarks to Cottage Grove.

Year-End Update

Master planning for East Ravine parks include unique recreational opportunities such as RC boating/tracks, etc. The team has worked on a unique playground and elevated shelter design at Denzer Park. The City continues to retain vision for photographic attraction to pull visitors in from Hwy 61.

Oltman Park now includes 3 rectangular turf sports fields and received a unique playground that encourages more active play and strength building. Staff also worked with the Lochridge developer to acquire and manage land around Robert's Lake for future park and trail development.

GOAL

Leverage key recreational facilities and park buildings to be points of pride for the community and improve local economy.

Year-End Update

Glacial Valley Park has become a focal point for park rentals. Overall, facility rentals have increased over 100% yet again. With the addition of an on-line facility reservation system, our process has further improved the customer experience. Staff continues to meet with event and tournament hosts this to assure services are meeting the needs of our customers.

Strategic Direction 4:

Remaining Employer Of Choice



GOAL

Add a therapy dog to the police department.

Year-End Update

With a $10,000 grant, the City was able to purchase Cottage Grove's first ever therapy dog. Riggs works with the Community Management Unit alongside Detective Scott Shaver. The two of them are provided regular training through Soldier's 6. Riggs has proven to be a hit with community members, and employees.

GOAL

Complete Front Desk and Chambers Security Plan.

Year-End Update

The City's Front Desk Task Force has completed an approved plan for improving security and efficiency within the City Hall's main public lobby. Wold Architects has finalized the plan to provide visibility of the front entrance and a safety barrier between the public and the front desk team as well as councilmembers in the council chambers. Wold will coordinate implementation of the approved plan in the first quarter of 2026.

GOAL

Continue employee recognition programs (Years of Service, Police, Fire).

Year-End Update

The City continues to celebrate the outstanding achievements of employees with various programs. March 18, 2025 twenty employees were recognized for their combined 210+ years of service with a luncheon at River Oaks. An additional 10 employees were recognized at a second award lunch in September.

Public Safety staff is also celebrated at the police banquet and fire department BBQ.

Strategic Direction 4:

Remaining Employer Of Choice



GOAL

Develop training programs for employees at all levels such as the Management and Leadership Development Academy and the Learning to Lead Academy, Book Studies and Guest Speakers.

Year-End Update

The annual Leadership Summit took place in late winter. Attendees learned about the PG3 Method and heard updates from other departments. This year's leadership book series was Never Split the Difference: Negotiating as if Your Life Depended On It by Chris Voss.

GOAL

Continue to grow and enhance employee engagement programs. (GOLD, Lunch and Learn, Safety Committee, Health and Wellness)

Year-End Update

Monthly Wellness activities, as well as challenges from NFP, are keeping employees engaged. These opportunities not only promote overall health and wellness, but act as a fun way to better get to know employees from other departments. The safety committee has relaunched with new incentives. Lunch and Learns and GOLD Award continue on as they have in the past. This year we also piloted the JumpStart Employee Onboarding Program.

GOAL

Continue retention interviews and new hire interviews.

Year-End Update

Retention interviews and new hire interviews continue to provide vital feedback to supervisors and the organization as a whole. This also gives staff an open forum to share concerns and successes.

GOAL

Continue to use the Financial Management Plan.

Year-End Update

The 10-Year Financial Management continues to guide the 2026 budget process. This plan was shared with City Council during the Strategic Planning Retreat and again during the Budget Kickoff in April.

Payroll began providing Notice of Deposits for employees via email so that employees have a clear, detailed, account of their pay stub.

Strategic Direction 4:

Remaining Employer Of Choice



GOAL

3R - Fire, Positive Impact Team - Police

Year-End Update

As part of the 3Rs (Recruitment, Retention, and Recognition), Central Fire recently installed a sauna, with a grant from Marathon. Studies show that firefighters are at higher risk for Cardio-metabolic Diseases (CMD) and sudden cardiac arrest. Sauna bathing is known to decrease markers of CMD.

Fire also recently implemented use of a comprehensive Wellness App for all current and former firefighters and their families. Some of the things the app includes are:

- Anonymous self-assessment screenings
- Specialized therapist directories
- Leadership Development
- Peer support networks
- Physical fitness programs

The Police Department's Positive Impact Team has also been busy coordinating social and team events, developing sabbatical and retention bonus proposals, assisting with a MN-OSHA grant that funded the purchase of electronic hearing protection for all officers, contributing to recognition and awards programs, developing a mentor program, and much more.

GOAL

Create new Insurance Committee.

Year-End Update

City staff, with representation from every department, met several times as the new insurance committee. Meetings with the committee and NFP centered around orthodontia coverage and adding a supplemental, materials only eye care plan.

Strategic Planning Participants

The strategic plan was shaped through the dedication and collaboration of many individuals. Leading the effort, the city council devoted time and focus to long-term visioning - setting a clear direction and defining outcomes that reflect the priorities of the community and its key partners.

City senior staff played a key supporting role providing operational insight and constructively challenging traditional approaches to help refine and strengthen the planning process.

City Council

Myron Bailey, Mayor
Dave Thiede, Councilmember
Justin Olsen, Councilmember
Monique Garza, Councilmember
David Clausen, Councilmember

Department Heads and Staff

Jennifer Levitt, City Administrator
Emily Schmitz, Community Development Director
Brenda Malinowski, Finance Director
Zac Dockter, Parks and Recreation Director
Pete Koerner, Public Safety Director
Ryan Burfeind, Public Works Director
Phil Jents, Communications Manager

City Council Action Request

6.A.

Meeting Date	1/10/2026
Department	Community Development
Agenda Category	Action Item
Title	Community Development Department Staffing Report
Staff Recommendation	Receive the Community Development Staffing Report.
Budget Implication	N/A

Attachments

1.	2025-1-10 CD Strategic Plan Council Memo
2.	Building Strategic Plan Booklet (Pages)
3.	Code Enforcement Strategic Plan Booklet (Pages)
4.	2025-1-10 Strategic Plan_Trash Container Ordinance Memo

To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Emily Schmitz, Community Development Director

Date: December 19, 2025

Re: Community Development Department Five Year Strategic and Staffing Plan

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Executive Summary

The Cottage Grove Community Development Department is responsible for the short- and long-term planning of community growth as well as ensuring public health and safety through verifying compliance with the State Building Code and City's Zoning Codes.

Community Development is comprised of two divisions; Planning and Building and is made up of 13 full-time staff and 1 part-time position. This includes the Community Development Director, Building Official, 3 Planners, 3 Building Inspectors, 1 Code Enforcement Officer, 3 Permit Technicians and 1 part-time Office Assistant.

The Community Development Department has grown in the past 5 years because of continued steady community growth with an average of 396 newly platted lots annually, an average of 368 new home permits each year, and an additional average of $66,981,639.00 commercial and industrial permit valuation. To ensure residents and businesses continue to receive a high quality of customer service, the Community Development 5-year strategic and staffing plans outline the department's goals and needs to maintain this level of service.

Planning

Responsible for the short- and long-term planning of community growth and guiding residents, developers, and builders to ensure alignment with the City's zoning codes and strategic goals.

The Planning team is made up of the following positions:

- (1) Senior Planner
- (1) Planner
- (1) Associate Planner
- (1) Community Development Assistant (also supports the Building Division)

The general duties include enforcement of the zoning code in review of planning applications and building permits, residential subdivision application review, zoning permit review and maintaining codes and ordinances to support community growth for a diversity of housing, strong commercial and industrial growth, and aligning with development market trends.

Year	Planning Applications	Platted Lots
2020	53	467
2021	79	785
2022	73	305
2023	35	139
2024	42	415
2025	37	263

Building Division

The Building Division holds responsibility for ensuring that construction within the city of Cottage Grove is safe, code-compliant, and consistent with property maintenance ordinances and enforcing the Minnesota Building Code. The Building Division plays a vital role in protecting public safety by conducting plan and code review, and building and code enforcement inspections for homes, businesses, industrial uses and public places.

The Building Division is made up of the following positions:

- (1) Chief Building Official
- (4) Building Inspectors
- (1) Code Enforcement Officer
- (1) Building Permit Technician Coordinator
- (1) Building Permit Technician
- (1) Part Time Office Assistant II

Much of the Building Division workload is driven by development, redevelopment, and market trends. Between 2020 and 2025, building permits issued have increased and continue to remain consistent due to the healthy regional market. As a result, the Building Division team has evolved to support the continued volume of new homes, commercial and industrial growth, as well as institutional projects and maintained a consistent service to residents, contractors, and builders. The Building Division's goal has been accomplished to maintain review of new home permits within 15 business days, residential permits within 10 business days and to ensure inspection requests are scheduled within 48 hours of the request.

Year	Permit Count	Inspections	Valuation	Revenue
2020	4,466	12,608	162,371,146	2,597,175.70
2021	5,655	15,362	231,869,956	3,451,946.86
2022	5,559	21,886	373,439,534	4,344,893.93
2023	4,681	14,822	189,481,402	2,585,206.48
2024	4,755	15,974	208,030,399	2,953,717.55
2025 – YTD 12/1	4,280	13,722	253,591,534	3,659,311.26

The average number of inspections assigned to an inspector each day is 10-12 inspections: up to 18 during the summer months. This schedule allows for the appropriate inspection time for each type of inspection to ensure a thorough inspection. Over the past six years, the annual average inspections conducted by the

Division have been 15,892 inspections (all residential, commercial, industrial) which equates to an average of 12.8 inspections per day per inspector based on 247 working days for the Building Division staff of 1 Building Official and 4 inspectors.

Broken down for new home residential permits, a new home averages 24 inspections which require on average 6.5 hours of inspection time based on the established time to complete each type of inspection. Plan review time required for new home permits requires an average of 2 hours to complete. This equates to 8.5 hours for each new home building permit (plan review and inspections) and equates to 2 full-time inspectors supporting only new residential construction annually.

Year	Single Family Detached	Single Family Attached	Total	Total Hours for Inspections and Plan Review for New Residential Construction
2020	273	109	382	3,247
2021	423	151	574	4,879
2022	266	82	350	2,975
2023	235	55	290	2,465
2024	281	54	336	2,856
2025 YTD 12/01	234	39	273	2,321
Annual Average	**285**	**82**	**368**	**3,123**

It is anticipated that residential activity will continue with a strong single-family and town home vacant lot count in current and proposed developments. The Division's current staffing level supports this consistent residential growth.

Potential Online Year	Potential Subdivision	Potential Total Lots
2026	Summer Woods (single family)	56
	Lochridge (remaining townhome lots without 1st Addition lots)	36
	Lochridge (remaining single family without 1st Addition lots)	45
	Lennar - Nesvig 68 acres (single family)	164
	Prairie Dunes (remaining lots without 1st Addition lots)	44
	Ravara Trails (Tank Land) (single family and townhomes)	569
	McHattie (single family)	89
	Mississippi Landing (remaining without 1st & 2nd Addition lots)	187
	2026 Potential Total Lots	**1190**

As the city continues to experience consistent growth trends within the construction areas of new and existing homes, there has also been an upswing in commercial, institutional and public permits in recent years. This includes an average of 430 permits annually for multi-unit residential, retail, industrial, and educational and public buildings. The School District will continue to be the strongest contributor of

activity which includes large additions to the high school, both middle schools, two elementary schools, and minor improvements to the remaining elementary schools. These projects are expected to be completed in 2028.

Two inspectors within the Division currently hold a State Delegation Agreement with the Minnesota Department of Labor and Industry which is required to review and inspect the institutional projects and allows for depth in the department to manage these projects efficiently. These two inspectors will continue to focus on commercial, public and institutional projects over the next 5 years.

Main 5-year strategic plan goals for the Building Division include:

- Focus on creating depth within the Division by ensuring 2 inspectors hold a delegation agreement with the State and 2 additional inspectors hold a Certified Building Official license.
    - A State Delegation allows an inspector to conduct plan reviews and inspections of State Licensed projects (schools, hospitals, care facilities etc.). This is imperative as the School District continues to plan for their projects through 2028.

Current Institutional Development	Start of Construction Year	Projected Completion Year
Park High, Oltman Middle, Cottage Grove Middle School	2025	2027
Transitions Program Building – ISD 833	2025	2026
Cottage Grove Water Tower	2025	2026
Intermediate Zone Water Treatment Plant	2025	2028
Norris Square	2025	2026
Future Institutional Development		
Pine Hill / Grey Cloud Elementary School - Additions	2026	2027
Crestview/Hillside Elementary School - Remodel	2027	2027

    - Holding a Certified Building Official license allows for an inspector to review and conduct commercial plan review and inspections. With the continued commercial, multi-family residential, potential industrial, and public projects, this allows for flexibility and depth within the Division for review of plans and completion of inspections.

Current Commercial Development	Start of Construction Year	Projected Completion Year
Cottage Grove Water Tower	2025	2026
Intermediate Zone Water Treatment Plant	2025	2028
Cottage Grove Armory – Roof and Façade improvement	2025	2026
Cottage Grove Logistics Park – Speculative Office Area	2025	2026
GTI – Leafline Labs Remodel	2025	2026
Future Commercial Development		
Cedarhurst Mansion Rehabilitation	2026	2026
Kwik Trip – 95th Street	2026	2027
Kwik Trip – Highway 61 &95	2026	2027
Super America Redevelopment Site	2026	2027
New Life Church – Building Addition	2026	2026

Van Meter – Building Additions	2026	2027
UPS Store – Tenant Buildout	2026	2026
De La Fontaine Industries – Factor/Tenant Build-Out	2026	2026

In-Approval Process Apartment Buildings	Total Units	Start of Construction Year	Projected Completion Year
Real Estate Equities (Hadley Ave)	164	2026	2027/2028
Roers Company (6850 E Pt Douglas)	144	2026	2027/2028
Yellow Tree (E Pt Douglas)	186	2026	2027/2028
Total Potential Units Complete in 2027	**494**		

- Certify an inspector to conduct Fire Alarm and Fire Suppression plan review as opposed to using a consultant.
    - The City currently contracts with a consultant to complete commercial fire alarm and fire suppression plan reviews, an average cost to the city of $12,236 annually. Additional training is planned for 2026 and 2027 for a building inspector and the Fire Marshal to secure their certification and delegation with the State to be capable of completing these plan reviews in-house.
- Creating room for growth within the Building Division as the shortage of experienced building inspectors continues throughout the region.
    - The market continues to show a limited number of individuals entering the building inspector profession. Given the required training for building inspectors, it is imperative that the Division provides an opportunity for growth within the Division and aligns with the City's goal of being an employer of choice. Creating positions for growth within the Division will allow for current inspectors to grow within the Division and the organization by creating an Inspector I and II position as well as an Assistant Building Official position.

Job Title	Credentials	Responsibilities
Building Inspector I	Limited Building Official (Entry Level Inspector)	Performs plan review and inspections for single family homes and townhomes
Building Inspector II	Certified Building Official	Performs plan review and inspections for residential and commercial properties
Senior Building Inspector	Certified Building Official and State Delegation Agreement	Team lead for the Inspectors, provides support to orientation and training of new inspectors, work direction of inspection team. Performs plan review and inspections for residential, commercial, and State Licensed facilities
Assistant Building Official	Certified Building Official and State Delegation Agreement	Assist and support the Chief Building Official in the implementation and administration of the Building Division programs, personnel management, and services. Supervision of the Inspection Division. Performs plan review and inspections of residential, commercial, and State Licensed facilities

Chief Building Official	Certified Building Official and State Delegation Agreement	Responsible for the day-to-day administration of the Building Division. Conducts plan review and inspection for commercial and State Licensed facilities

The current Building Division is well positioned to maintain a consistent level of customer service to residents, builders, and contractors to the level of service as outlined above. The current staffing levels will require re-evaluation at such time permit and inspection levels increase beyond the current levels.

Community Development Front Desk Team

Responsible for the overall administration and daily operations of the Community Development Department and Building Division, including answering the building inspection line and main line, permit processing (Building and Zoning), building inspection scheduling, contractor licensing, payment processing and greeting front desk customers.

The team coordinates and connects visitors with the appropriate Department as needed and consists of three full-time and one part-time staff member. This team serves as the first point of contact for a multitude of city services, ensuring smooth operations and a welcoming experience for the public:

- (1) Part Time Office Assistant II
- (1) Community Development Assistant
- (1) Building Permit Technician
- (1) Building Permit Technician Coordinator

Year	Permits Processed	Inspections Scheduled	In Person Customer Interactions
2021	5,978	15,555	
2022	5,922	22,185	
2023	4,937	14,796	
2024	4,954	16,068	2,889 (May-Dec)
2025 to Date	4,664	14,267	4,004*

*Increase due to Utility Billing Services transitioning in-house

To ensure a high-quality of customer service, the team processes online building and zoning permits and permit payment submittals within 15 minutes of receipt. Building inspection requests received via email are acknowledged and responded to within 15 minutes of receipt and the main phone line and building inspection scheduling line are answered within three rings to provide prompt assistance to residents, contractors, and builders.

Online inspection scheduling is planned for implementation in 2026. It is anticipated that the implementation of the option for residents, builders, and contractors to schedule inspections online will result in a reduction in call volume to the building inspection line and increase email correspondence. The new system will offer a more convenient and efficient option for contractors and residents.

Due to the shift in general inspection communications from phone calls to online inspection requests, it is anticipated that the Office Assistant II position will shift focus from the inspection line to primary point of

contact at the front counter while continuing to provide support to the building team and departments within City Hall.

Based on the projected continued steady growth for Cottage Grove, the current team is well-positioned to maintain a consistent level of customer service as outlined in the 5-year strategic plan.

Code Enforcement

Code enforcement plays a critical role in maintaining the health, safety, and aesthetic quality of our community. Over the past several years, the city has experienced increased demand for code enforcement services due to aging housing stock, increased rental activity, and ongoing development in residential, commercial and industrial areas. A strategic, proactive approach is necessary to address these challenges and support long-term community goals.

The code enforcement team is currently comprised of one full-time employee and a seasonal inspector during the summer months (April-September). The Code Enforcement Officer responsibilities encompass a broad range of regulatory and inspection activities aimed at maintaining community standards and ensuring public health and safety including:

- Property Maintenance Inspections
    - Conduct proactive and complaint-based inspections of residential, commercial, and industrial properties to ensure compliance with local property maintenance codes.
    - Document violations, issue notices, and follow up to ensure timely resolution.
- Rental Licensing Program Management
    - Administer the City's rental licensing program, including application processing, recordkeeping, and compliance tracking.
    - Perform inspections of single-family homes, townhomes, and multi-family complexes to verify adherence to housing and safety standards.
    - Coordinate re-inspections and enforcement actions for non-compliant rental properties including issuing criminal citations involving multiple follow up inspections and attending court hearings if necessary
- Health and Safety Enforcement
    - Investigate and address unsafe or unsanitary living conditions, including hoarding, pest infestations, and structural hazards.
    - Collaborate with other departments or agencies when necessary to resolve complex or hazardous situations.
- Public Education and Customer Service
    - Respond to citizen inquiries regarding city codes, ordinances, and enforcement procedures.
    - Provide guidance to residential and business property owners, tenants, and landlords to promote voluntary compliance and understanding of regulations.
- Specialty Inspections
    - Conduct inspections of chicken coops and beehives to ensure compliance with ordinances and permitting requirements as well as public health standards.

The main 5-year strategic plan goals outlined for code enforcement include maintaining proactive sweeps, maintaining an efficient and effective rental license program, and addressing reactive enforcement.

Reactive Enforcement

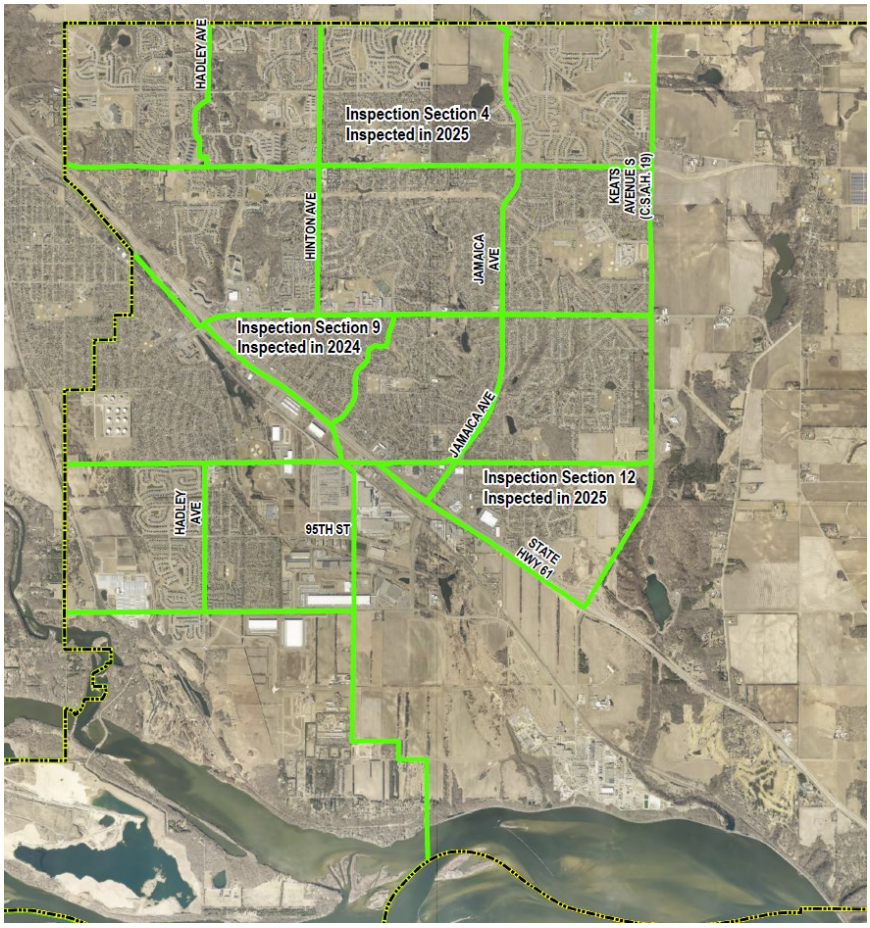
As part of the City of Cottage Grove's five-year strategic plan, reactive or complaint-based code enforcement will continue to serve as a foundational approach for addressing property maintenance and zoning violations. This model relies on community members to report concerns, allowing staff to respond directly to issues that impact neighborhood quality and safety. While this approach is responsive, it can present challenges related to equity, timeliness, and prevention. To enhance effectiveness, a strategic goal will focus on expanding public education on reporting procedures and explore hybrid enforcement strategies that balance reactive responses with targeted proactive inspections throughout the Community. On average, approximately 400 staff hours annually is dedicated to reactive code inspections.

Annual Property Maintenance		
Year	**Number of Inspections**	**Number of Cases**
2020	**666**	**437**
2021	**771**	**491**
2022	**597**	**318**
2023	**789**	**265**
2024	**1174**	**546**
2025 YTD 12/01	**1614**	**714**
Total	**3997**	**1129**

Proactive Enforcement Sweeps

To maintain high standards of property maintenance, the City has implemented proactive code enforcement sweeps across residential neighborhoods. A proactive sweep plan was implemented in 2024, sectioning the city into 16 sections and conducting code inspections through one section annually.

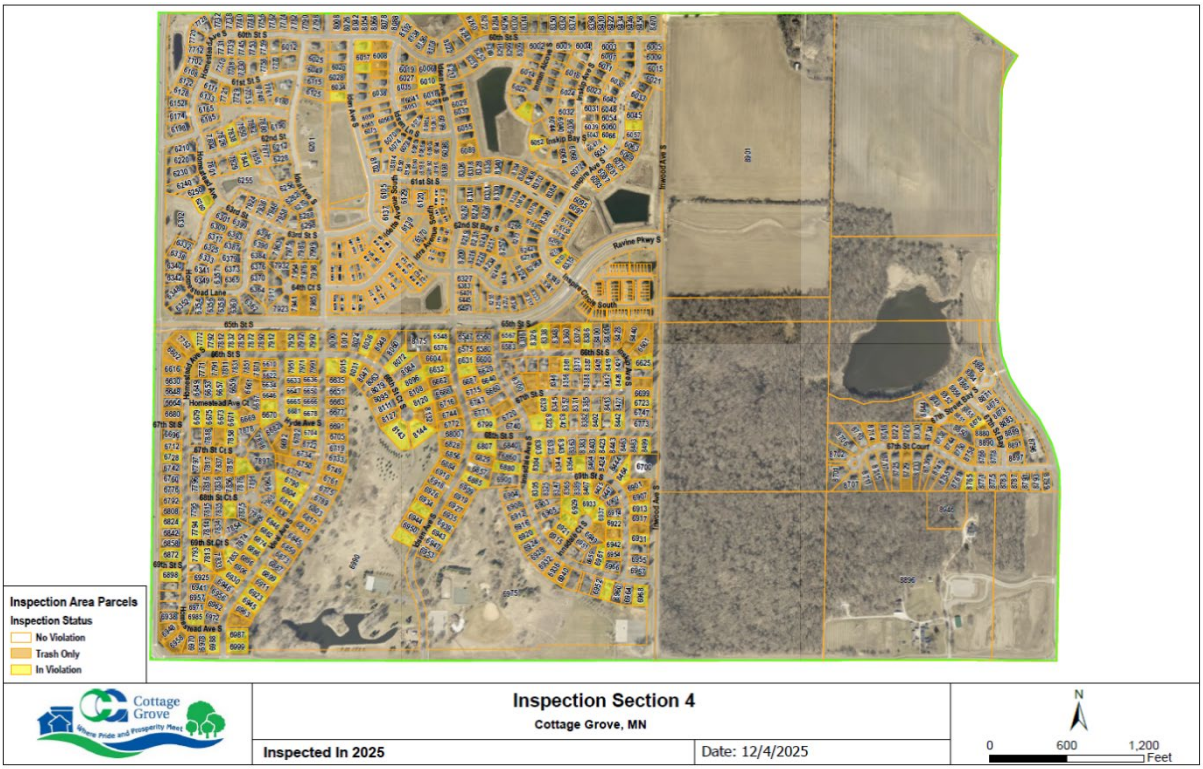
One section was inspected in 2024 while two total sweep area sections were completed in the summer of 2025 with the support of a seasonal code enforcement inspector. The seasonal inspector significantly increases the inspection capacity specifically with the proactive program. A seasonal inspector supports the ability to conduct additional proactive enforcement, however; it continues to be challenging to secure a candidate with experience in the position to provide valuable support during the summer months. This requires the code enforcement priorities to adjust as needed dependent on the ability to hire that position each year.

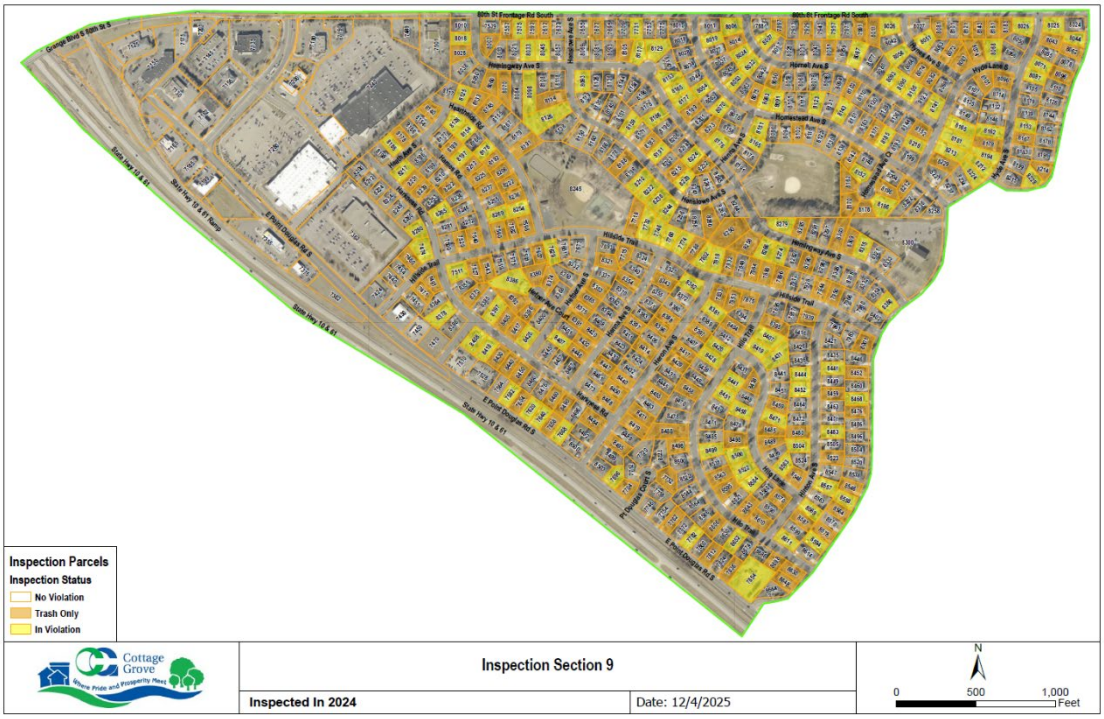


The table below and attached maps outline the number of properties inspected and code cases addressed within areas swept in 2024 and 2025 along with the number of properties in each section and violation types.

Year	Properties Inspected	Cases Generated	Notes
2024	637	342	Initial Proactive Sweep, Completed by Code Enforcement Officer
2025 – Section 1	940	419	Completed with Help of Seasonal Staff
2025 – Section 2	240	92	Completed by Code Enforcement Officer


Inspection Area Parcels
Inspection Status
No Violation
Trash Only
In Violation
Inspection Section 12
Inspected In 2025
Date: 12/4/2025
N
0 150 300
Feet


Inspection Area Parcels
Inspection Status
No Violation
Trash Only
In Violation
Inspection Section 4
Cottage Grove, MN
Inspected In 2025
Date: 12/4/2025
N
0 600 1,200
Feet



Rental License Program

The City of Cottage Grove administers a rental licensing program designed to promote safe, well-maintained housing and ensure compliance with property standards across the community. Under this program, all single-family rental properties are subject to inspection every two years to verify adherence to health, safety, and maintenance codes. In addition, one-third of all units within each multi-family rental complex are inspected annually, allowing for full inspection coverage over a three-year cycle. This structured approach supports proactive oversight of rental housing conditions while balancing staff capacity and operational efficiency.

After accounting for City holidays (96 hours) and annual leave (184 hours), the total number of hours available for work annually for the code enforcement officer is approximately 1,800 hours. In 2025, 737 rental units were inspected, with an average of 0.75 hours per unit, totaling 552.75 hours dedicated to rental inspections. This does not include the administrative duties associated with the rental license program which includes correspondence via email, mail, and phone to schedule the inspections and answer inquiries and questions.

	Number of Units Permitted			
Year	**Single Family Detached**	**Single Family Attached**	**Multifamily & Senior Living**	**Total Staff Hours**
2020	273	109	0	**382**
2021	423	151	0	**574**
2022	266	82	2 (202 total units)	**350**
2023	235	55	0	**290**
2024	281	54	1 (52 total units)	**336**
2025 YTD 12/01	234	39	0	**273**
Total	**1478**	**451**	**3**	**2205**

Total Number of Rental Units Inspected	
Year	**Number of Units Inspected**
2020	**210**
2021	**391**
2022	**423**
2023	**548**
2024	**735**
2025 YTD 12/01	**737**
Total	**3044**

Looking ahead, the City is experiencing significant growth across all sectors, including residential development and rental housing. Four new multifamily buildings currently or near being under construction will add 544 rental units in the coming years, alongside continued single-family and commercial development.

In alignment of the City's standard of inspecting one-third of all multi-family rental units annually, an average of an additional 181 units will be added to the inspection schedule each year. This increase will require approximately 137 additional staff hours dedicated solely to rental inspections. This estimate does not account for the additional administrative time needed to support these inspections, including scheduling, documentation, compliance follow-up, and data management.

Projected future multifamily buildings and unit numbers		
Building	**Completions Year**	**Number of Units**
Bluestem (Senior)	2025	50
Roars	2026	144
Hadley Ridge	2026	164
Yellow Tree	2026	186
	Total	**504**

Additionally, 714 code enforcement cases (reactive and proactive combined) were addressed in 2025, with an average of 1.5 hours per case, resulting in 1,071 hours dedicated to code enforcement (please note this metric does not include compliant properties inspected during proactive sweeps). Combined, these core responsibilities (reactive enforcement, proactive enforcement and rental license program) accounted for **1,623.75 total staff hours in 2025**, or roughly **90% of the total available work hours for the code enforcement officer for the year**.

One code enforcement officer can support the rental license program capacity today as well as completing a single section proactive sweep as well as the average reactive enforcement required. With the onboarding of a seasonal inspector, additional proactive sweep areas can be reviewed. Additional multi-

family buildings completed in the coming 2 years will add additional time to the code enforcement officer's duties and will reduce the area of proactive enforcement. To enhance capacity and improve equity in enforcement, the addition of one full-time Code Enforcement Officer would support conducting up to three proactive neighborhood sweeps annually, significantly accelerating citywide coverage from a 16-year cycle to approximately five years.

Cottage Grove has the highest rate of new home growth among 16 comparable cities; however, it remains one of few that relies on a single staff member for all code compliance and rental license inspections.

City	Population (Rounded up)	New home Growth between 2020 &2023	Staff for code enforcement and rental inspections
Cottage Grove	43,000	1403	1 full-time Code Enforcement Officer to complete reactive/proactive code compliance and all rental inspections + 1 Seasonal Code Enforcement Officer to assist with proactive enforcement.
Shakopee	46,000	1155	1 Code Compliance Specialist to complete code compliance + 1 Building Inspector to complete rental inspections.
Savage	33,000	444	1 Code Enforcement Coordinator for property maintenance. City does not require rental inspections.
Maplewood	42,000	112	2 Neighborhood Preservation specialists to complete code compliance and rental inspections.
Roseville	36,000	325	3 code compliance officers for code compliance and annual rental inspections.
Richfield	39,000	913	2 Housing Inspectors for rental inspections + 2 Environmental Health Inspectors for code compliance.
Minnetonka	55,000	867	3 Environmental help specialists who handle code compliance and 1 building inspector who completes rental inspections.
Brooklyn Center	34,000	224	1 Housing and Community Standards Coordinator + 3 inspectors that complete code compliance and rental inspections.
Inver Grove Heights	36,000	441	1 Code Compliance Coordinator that completes code compliance + 3 "combo" inspectors who complete rental inspections
Apple Valley	56,000	463	1 Code Compliance Specialist + 1 Code Compliance Inspector who complete code compliance. City does not require rental inspections.
Andover	33,000	187	Staffing unclear but does complete code compliance and rental housing inspections.
Fridley	30,000	429	1 Inspector completing code compliance + 2 Inspectors completing rental inspections.
Ramsey	29,000	730	2 staff completing code compliance + 1 Rental Housing Inspector completing rental inspections.

Chaska	30,000	671	Community Service Officers (CSO's) address code compliance. Fire Department complete rental licensing inspections.
St. Louis Park	50,000	631	7 Property Maintenance Inspectors completing code compliance + 4 Housing Inspectors completing rental inspections.
Prior Lake	30,000	410	1 Code Enforcement Officer completing code compliance. Do not require rental inspections.

Staffing Summary

- **Planning:**
  - No proposed change to staffing numbers, however, there will likely be opportunities for professional growth of the planners between Associate Planner to Planner to Senior Planner positions.
- **Front Desk Team:**
  - No proposed change in staffing levels to support the permit processing and front desk customer service.
- **Building Division:**
  - Staffing is sufficient at current permit and inspection levels in 2025. Anticipating consistent commercial, industrial, multi-family, and public projects, a budget need for a seasonal inspector position in 2027 should be considered.
  - It is recommended to include creation of and revision to existing job descriptions to all for inspector professional progression and growth within the organization. These positions will support retention of inspector positions while also supporting a succession plan as we near position retirements.
- **Code Enforcement:**
  - It is recommended to add an additional FTE code enforcement position in 2027 to support the multi-family product growth which directly translates to additional rental license staff time. With the additional time dedicated to the rental license program in 2027, there will be a reduction in staff time dedicated to proactive enforcement and public education.
  - It is recommended to retain the seasonal (6-month) code enforcement position in 2026 and annually until an FTE is added.
  - Asking Council to evaluate and reaffirm direction and expectations of the trash container ordinance.

Building Division Strategic Plan
2026 – 2031

CITY OF COTTAGE GROVE
COMMUNITY DEVELOPMENT DEPARTMENT



City of Cottage Grove
12800 Ravine Parkway South
Cottage Grove, MN 55016
651-458-2800 | cottagegrovemn.gov

Cottage Grove
Where Pride and Prosperity Meet



A Message from the Chief Building Official

As the Chief Building Official, my team and I are dedicated to ensuring the safety, integrity, and quality of construction throughout our city. We remain focused on delivering consistent, transparent, and responsive services to the residents, developers, and contractors alike. Through rigorous plan reviews, timely inspection, and strong enforcement of the Minnesota State Building Code and City ordinances, we help ensure that every structure built or renovated in Cottage Grove meets the highest standards of safety and durability.

Over the past years, we have seen increased activity in both residential and commercial sectors – a sign of confidence in Cottage Grove's future. As we look ahead, our department continues to adapt to changing codes, technologies, and community needs. This includes preparing for updates to the Minnesota State Building Code, improving our digital permitting process, and prioritizing customer service for homeowners and contractors equally.

We recognize that the work we do directly impacts the health, safety, and economic vitality of our community. As we present the Building Division's Strategic Plan for the next five years, I am proud of our department's commitment to public service, and I look forward to continuing our work in alignment with the City Council's vision for a thriving, resilient Cottage Grove.

Andrew McLean, Chief Building Official
AMcLean@CottageGroveMN.gov

Andrew McLean

Mission

The mission of the City of Cottage Grove Building Division is to ensure the safety, quality and longevity of the built environment by administering and enforcing the Minnesota State Building Code and related regulations while fostering public trust. Through timely plan reviews, inspections and permitting services, the building team guides responsible development, protects the public welfare and promotes a thriving, well-constructed community for all residents and businesses.

Vision

To ensure safe and durable homes, businesses, and public spaces in the City of Cottage Grove by upholding the highest standards in building practices, fostering innovation, and providing exceptional service to our community. We envision a city where quality construction supports a thriving, resilient and welcoming environment for all.

- Building Safety
  - To be a trusted leader in building safety by providing consistent and timely plan reviews and inspections, embracing the latest technology, and continuously improving our processes to ensure efficiency, code compliance and service excellence.
- Public Service
  - To set the standard for public service by providing timely, professional, and courteous communication in every interaction – fostering trust, transparency, and collaboration while ensuring safe and code-compliant buildings for our community.
- Scheduling and Permits
  - To provide seamless, efficient scheduling and permit issuance through user-friendly online systems, responsive coordination, and strategic staffing – ensuring timely service and a positive experience for all customers, even during peak demand.
- Public Education
  - To be a trusted source of building safety education by providing current handouts, practical checklists, and clear communication that engages citizens and contractors – supporting safe construction practices in homes, businesses, and the community.
- Department Culture
  - To build a positive and professional department culture rooted in respect, collaboration, and team spirit – where morale is high, teamwork thrives, and bonding activities strengthen our mission.

Core Values

These values guide every decision, action, and interaction of our division.



Individual
- Competence
- Integrity
- Ownership
- Professionalism



Team
- Collaborative
- Communication
- Outcome-focused
- Supportive
- Service



Community
- Accountability
- Empathy
- Partnership
- Transparency
- Trust



Organization
- Adaptive
- Excellence
- Progressive
- Safe
- Strategic





Strategic Goals

Commitments to quality, efficiency, and safety

Services

Modernize services to ensure safety and quality through efficient building inspections, streamlined plan reviews, and improved permit processing and scheduling.

Technology, Equipment, and Innovation

Improve efficiency and transparency by strategically utilizing and maintaining its core plan review, permitting, and scheduling software.

Community Outreach

Enhance public safety and efficiency by educating residents and contractors on building codes through outreach, educational materials, and annual meetings.

Building Division Team Growth

Foster a skilled and motivated workforce by investing in continuous training and maintaining a supportive, professional culture.

Future Trends

Use strategic planning and data-driven decisions to align services and resources with community growth, ensuring high-quality customer service now and in the future.

Executing the Vision: A Holistic Approach to Safety and Service

Our core commitment is to elevate the quality and safety of the built environment across our community. We achieve this by using **Technology, Equipment, and Innovation** to improve **Services**, strengthening transparency through **Community Outreach**, and investing in the professional development of our **Building Division Team**. These focused initiatives, coupled with strategic **Future Trends**, ensure fair, efficient operations that maintain the high construction standards residents expect and deserve.

Services

To ensure the safety and quality of the built environment through enforcement of State Building Codes, the Building Division is committed to providing responsive and transparent services including building inspections, plan reviews, permit processing, scheduling inspections, property maintenance and rental licensing.

Building Inspections

Objectives:

- 1.1.1 Ensure inspector safety while performing inspections
- 1.1.2 Explore the Implementation of virtual inspections
- 1.1.3 Provide punctual, on-time inspections to maintain the City's commitment for quality service
- 1.1.4 Consistency across inspections/inspectors

Outcomes:

- 1.1.1.a Annual safety training for inspectors
- 1.1.1.b Ensure inspectors are provided with proper safety gear
- 1.1.2 Provide the availability for virtual Plumbing and Mechanical inspections end of year 2026
- 1.1.3.a Review allotted inspection times every 6 months, change if necessary
- 1.1.3.b Implementation of online scheduling request through EPL software (see "Scheduling" 1.4.1.a)
- 1.1.4.a Review inspection checklists annually and update as needed when codes or procedures change
- 1.1.4.b Inspectors shall complete their annual training plans
- 1.1.4.c Maintain weekly Code Corner meetings and frequent collaboration amongst the team

Plan Review

Objectives:

- 1.2.1 Provide efficient residential plan review
- 1.2.2 Streamline commercial plan review time
- 1.2.3 Ensure permit valuation calculation is up to date with current trends

Outcomes:

- 1.2.1.a Create a uniform plan review comment template by end of 2026
- 1.2.1.b Review and update plan review SOP annually
- 1.2.1.c Completion of new home building permit review within 15 business days at least 90% of the time by reviewing monthly reports
- 1.2.1.d Complete other residential permit review within 10 business days at least 90% of the time by reviewing monthly reports
- 1.2.2.a Collaborate with other departments including Planning, Engineering and Fire to increase proficiency in the plan review approval process
- 1.2.2.b Review commercial building permit interdepartmental review processes (SOP) annually
- 1.2.2.c Explore opportunities to use a third-party contractor to conduct commercial plumbing plan reviews to streamline the commercial plumbing plan review time and create an additional revenue opportunity
- 1.2.3.a Annually review building permit valuation calculations and adjust to align with current construction trends, International Code Council and peer cities.

Permit Processing

Objectives:

- 1.3.1 Maintain an efficient standard of permit processing responsiveness and customer service
- 1.3.2 Consistent processing procedures across Permit Technicians

Outcomes:

- 1.3.1.a Review permit submittals for completion prior to building inspectors starting plan review
- 1.3.1.b Implement a process for monitoring processing permits within 15 minutes of receipt during regular business hours 90% of the time
- 1.3.2 Permit processing SOP followed to ensure each Building Permit Technician is processing each permit type

Scheduling

Objectives:

- 1.4.1 Implementation of online scheduling for residential and commercial inspection requests
- 1.4.2 Maintain an efficient and diligent response time for scheduling and completion of inspections and maintain a high-level of customer service

Outcomes:

- 1.4.1.a 40% of online inspection requests available to contractors, residents, builders will be operational by end of 2026. 90% of inspection types available for online request by end of 2027
- 1.4.1.b Maintain a division work group between Building and IT to achieve implementation of residential and commercial inspection online scheduling requests
- 1.4.1.c Implement utilizing EPL calendar for inspection scheduling by end of year 2026
- 1.4.2.a During regular business hours, inspection requests are responded to within 15 minutes of request receipt via phone, voicemail, or email
- 1.4.2.b Inspection appointments are scheduled within 48 hours of the requested time
- 1.4.2.c Implementation of a process to monitor inspection scheduling within 15 minutes at least 90% of the time and scheduling inspections within 48 hours of inspection request time
- 1.4.2.d Review allotted inspection times for all inspection types bi-annually

Technology, Equipment, and Innovation

The goal of the Building Division is to enhance efficiency, accuracy and transparency through technology and innovation. This includes implementing advanced plan review and structural calculation software, vehicles and field inspection tools, reliable permitting and scheduling systems, and explore the use of additional technologies to improve inspector safety, documentation, and environmental monitoring.

Plan Review Software

Objectives:

- 2.1.1 Maintain an efficient digital plan review process

Outcomes:

- 2.1.1 Evaluate the need for upgraded or new versions of plan review software if available

Permitting and Scheduling Software

Objectives:

- 2.2 Ensure utilization of all components of the building permit software

Outcomes:

- 2.2.a Maintain permit processing SOP
- 2.2.b Building Division representation at the annual Tyler Conference as training plans allow
- 2.2.c Maintain a network with other municipalities who are currently using our existing software
- 2.2.d Maintain a division work group between Building and IT to ensure resolution of software challenges and implementation of new standard operating procedures
- 2.2.e Evaluate software workflow monthly for inspections, inspection checklist, permit issuance, plan reviews and scheduling

Community Outreach

The objective of the Building Division is to promote public education and community engagement on building safety by highlighting Building Safety Month, hosting annual home builder meetings, and collaborating with the Communications team.

Public Education

Objectives:

- 3.1 Educate residents, builders, designers, architects, and contractors of building code requirements and city ordinances

Outcomes:

- 3.1.a Reduction in reinspections for corrective actions annually
- 3.1.b Reduction in plan review times
- 3.1.c Maintain building permit code requirement handouts and supplements with current building code standards
- 3.1.d Utilize all city communication avenues monthly to provide building permit educational messaging
- 3.1.e Annually highlight Building Safety Month
- 3.1.f Host Annual Contractor Meeting for new home builders
- 3.1.g Host educational contractor meetings



Building Division Team Growth

Fostering a skilled, motivated, and safe workforce through continuous training, professional development, and advancement opportunities. To attract and retain top talent by promoting a culture of recognition, collaboration, and respect. The Building Division strives to ensure a supportive environment that values employee well-being, succession planning, and organizational excellence.

Training and Development/Advancement

Objectives:

- 4.1.1 Ensure the Building Division maintains a Delegation Agreement with the state of Minnesota Department of Labor and Industry for state licensed projects
- 4.1.2 Provide quality training for existing team members and onboarding for new employees

Outcomes:

- 4.1.1.a Ensure the division maintains two inspectors holding a delegation agreement with the State of Minnesota for state licensed projects for plan review and inspections
- 4.1.1.b Ensure one building inspector secures and maintains a state delegation in fire alarm and fire suppression systems inspections and fire alarm and fire suppression plan review by 2028
- 4.1.1.c Fire alarm and fire suppression system plan review provided internally by 2028
- 4.1.2.a Establish a Building Division onboarding plan by end of 2026

- 4.1.2.b Building inspectors required to complete a minimum of 35 hours of training in a two-year period to maintain State issued Building Official license
- 4.1.2.c The Building Division will maintain no less than two inspectors with their Certified Building Official license
- 4.1.2.d Include training through ICC, AMBO, 10K, MBPTA and city development programs into annual training plans
- 4.1.2.e Review and approve a customized annual training plan for the Building Division
- 4.1.2.f Establish job positions that allow for progressive growth within the department

Culture

Objectives:

- 4.2.1 Create a culture of excellence where team members are valued and motivated to deliver excellent service and performance
- 4.2.2 Maintain established core values
- 4.2.3 Promote work-life balance
- 4.2.4 Recognize team members for outstanding performance

Outcomes:

- 4.2.1.a Annually evaluate mission and vision statements to ensure they align with current culture
- 4.2.1.b Review of employee engagement survey findings annually for Community Development as means of improvement
- 4.2.2.a Review Building Division Shared Agreements quarterly for reaffirmation of core values and amend if needed
- 4.2.3.a Review flexible schedules, work remote, and personal needs quarterly against seasonal swings and workload and modify as needed
- 4.2.4.a Acknowledge team members for performance that exemplifies the mission, vision, and values for the City of Cottage Grove and the Building Division
- 4.2.4.b Gold Award recognition
- 4.2.4.c Team breakfast and lunches

Safety

Objectives:

- 4.3 Maintain best safety practices in the field

Outcomes:

- 4.3.a Safety in the Workplace training completed annually
- 4.3.b Establish a division guide for best safety practices when on construction sites by end of 2026
- 4.3.c Ensure field staff are provided with proper Personal Protective Equipment (PPE) and appropriate weather outerwear
- 4.3.d Completion of CPR and First Aid training and certification biennially

Future Trends

The Building Division is focused on anticipating and adapting to future trends by aligning workload, services, and resources with community growth, market conditions and budget priorities through strategic planning and data-driven decision-making to maintain the division's high level of customer service for now and into the future.

The Community Development staffing report identifies the Building Division's role and responsibilities, notes current trends such as permit volume, construction activity, regulatory complexity, and outlines key factors for future staffing decisions, including workload forecast, service level expectations, and exploring additional job positions for growth and retention.

Code Enforcement Strategic Plan
2026 – 2031

CITY OF COTTAGE GROVE
COMMUNITY DEVELOPMENT DEPARTMENT



City of Cottage Grove
12800 Ravine Parkway South
Cottage Grove, MN 55016
651-458-2800 | cottagegrovemn.gov

Cottage Grove
Where Pride and Prosperity Meet



A Message from the Code Enforcement Officer

As the City's Code Enforcement Officer, I am pleased to present the framework for our five-year strategic plan to strengthen community standards through proactive property maintenance and an effective rental licensing program. The plan will focus on improving neighborhood appearance, ensuring safe and healthy housing, enhancing compliance through education and outreach, and streamlined enforcement processes with updated technology and clear communication.

The goal of these programs is to protect property values, promote community pride, and ensure residents have safe, well-maintained places to live, work, and shop.

Samantha Drewry, Code Enforcement Officer
SDrewry@CottageGroveMN.gov
Samantha Drewry

Mission

As an entity of the City's Building Division, the mission of the Cottage Grove Code Enforcement Program is to promote and maintain a safe, clean, and healthy environment for all citizens, businesses, and visitors by ensuring compliance with all City codes through public education, and efficient and consistent enforcement.

Vision

To be a model of excellence, growth, and adaptation in Code Enforcement by promoting a proactive enforcement model, public education, and innovation through integrity and professionalism and equal and fair enforcement.

- Building Safety
- Public Service
- Public Education
- Culture

Core Values

These values guide every decision, action, and interaction of our division.



Individual
- Competence
- Integrity
- Ownership
- Professionalism



Team
- Collaborative
- Communication
- Outcome-focused
- Supportive
- Service



Community
- Accountability
- Empathy
- Partnership
- Transparency
- Trust



Organization
- Adaptive
- Excellence
- Progressive
- Safe
- Strategic

Strategic Goals

Elevating neighborhood standards for sustainable living.

Services

Standardizing operations, ensuring equitable code enforcement, conducting annual ordinance updates, and implementing proactive inspection programs.

Technology and Equipment

Enhance operational efficiency and service delivery by maximizing technology, such as enforcement/rental tracking software, through continuous training and IT collaboration.

Community Outreach and Education

Focus on public education by employing an effective campaign to increase community awareness and compliance.

Code Enforcement Team Growth

Ensure a knowledgeable, consistent, and safety-conscious workforce by emphasizing comprehensive training, continuous learning, and professional growth.

Future Trends

Advance the City's capacity to manage community expansion by strengthening the sustainability of the code enforcement and rental licensing programs.

Executing the Vision: A Holistic Approach to Compliance and Community

Our core commitment is to elevate the quality of life across our neighborhoods. We achieve this by using **Technology and Equipment** to improve **Services**, strengthening trust through **Community Outreach**, and investing in the professional development of our **Code Enforcement Team**. These focused initiatives, coupled with strategic **Growth**, ensure fair, efficient operations that maintain the high standards residents expect and deserve.

Services

Modernize and streamline code enforcement operations to better serve the community. Key strategies include conducting annual reviews and updates of city codes to ensure relevance and clarity, responding promptly to citizen concerns, and standardizing procedures for consistency and transparency. Targeted outcomes include ordinance updates addressing diseased trees, snow removal, and trash container storage. Provide timely responses to resident complaints and development of clear standard operating procedures for complex enforcement tasks with full utilization of digital tools, such as Rentalscape, to monitor and manage short-term rentals efficiently.

Property Maintenance

Objectives:

- 1.1.1 Effectively and equitably enforce all City codes in a rapidly growing community
- 1.1.2 Annual city code review and updates as necessary to ensure codes support the City's needs and the current strategic plan
- 1.1.3 Prompt response to all Citizen complaints and concerns
- 1.1.4 Maintain a proactive code enforcement program for residential areas
- 1.1.5 Maintain a proactive code enforcement program for both commercial and industrial districts

Outcomes:

- 1.1.1.a Annually review all standard operating procedures for the property maintenance program
- 1.1.1.b Evaluate monthly reports of code cases generated and inspections completed
- 1.1.2.a Update the diseased tree ordinance, including abatement process
- 1.1.2.b Update the snow removal ordinance to include requirements for multi-family properties
- 1.1.2.c Amend current trash container storage ordinance
- 1.1.3.a Provide a response to resident inquiries and complaints within two business days and work with the IT department to develop a tracking system
- 1.1.3.b Complete inspections for all code complaints submitted within five business days and track in EPL
- 1.1.3.c Quarterly evaluate tracking timeframes and procedures for inquiries and complaints
- 1.1.4.a Proactively Sweep at least one section (approximately 700 properties) of the City each year
- 1.1.5.a Conduct proactive biannual inspections of all commercial and industrial areas in early spring and late fall

Rental Licensing

Objectives:

- 1.2.1 Deliver customer centered rental licensing program by effectively and equitably enforcing all rental license program requirements
- 1.2.2 Maintain standard operating procedures for rental licensing processes and revise as procedures evolve
- 1.2.3 Ensure rental licensing fees accurately support the rental license program
- 1.2.4 Collaborate with other city departments to improve the efficiency of inspections in multi-family properties

Outcomes:

- 1.2.1.a Perform inspections biennially of all single-family rental properties in the city to secure a two-year license
- 1.2.1.b Perform inspections annually of all multi-family rental properties in the city to secure a one-year license
- 1.2.2.a Annually review all standard operating procedures for rental licensing program
- 1.2.2.b Maintain a standard operating procedure for online rental license renewal processing
- 1.2.3.a Evaluate single family rental license fees against metro area average biennially (our current licensing period for single family properties)
- 1.2.3.b Evaluate multi-family rental license fees against metro area average annually (our current license period for multi-family properties)



Technology and Equipment

Enhance operational efficiency and service delivery through the strategic use of technology tools and software. This includes maximizing the functionality of the enforcement and rental tracking software through ongoing training, collaboration with the IT Department, and continuous improvement of standard operating procedures. Additionally, explore and implement new technologies that support efficient and safe enforcement processes.

Code Enforcement and Rental License Software and Equipment

Objectives:

- 2.1 Continue to learn, train, and understand the software to create efficiencies in code enforcement processes.
- 2.2 Explore purchasing and utilizing a Nasal Ranger

Outcomes:

- 2.1.a Utilize SOP and update when changes in procedure occur
- 2.1.b Continue to meet with IT monthly to review and resolve software issues and implement new standard operating procedures
- 2.1.c Continue to advance the capabilities of the current software programs utilized
- 2.1.d Complete additional training with the developer of the Rentalscape program for short-term rental monitoring
- 2.1.e Perform monthly inventory of Rentalscape short term rental list and compare to licensed City rentals
- 2.2.a Improve safety, documentation and environmental monitoring

Community Outreach and Education

Promote community awareness and involvement by prioritizing education over enforcement and delivering clear, consistent messaging. This goal aims to build a well-informed public through branding efforts, accessible digital resources, and targeted outreach. By educating residents and business owners on common code violations, maintaining up-to-date information on the City's website, and fostering open dialogue with property owners and businesses, the City strengthens community partnerships and encourages voluntary compliance.

Outreach and Education

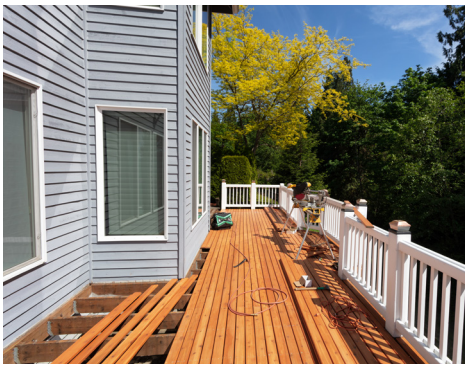
Objectives:

- 3.1 Focus on additional public education methods
- 3.2 Employ an effective branding campaign for code enforcement and rental licensing
- 3.3 Maintain the code enforcement and rental license webpages to accurately reflect most recent city codes and rental licensing requirements
- 3.4 Inform new homeowners of common code violations

Outcomes:

- 3.1.a Amend Code Enforcement Officer job title to Code Compliance Specialist to better help citizens understand that the position is not a sworn law enforcement officer position under the Police Department
- 3.1.b Educate the public on the purpose, mission and functions of code enforcement and rental licensing programs
- 3.1.c Monthly social media posts about a common code violation
- 3.1.d Monthly Newsletter articles about a common code violation
- 3.1.e Quarterly mailings to new developments in the City overviewing top 10 most common violations
- 3.1.f Annual meetings (Coffee Code and Crescents) for business owners in the City that address a common violation in our business and industrial zones
- 3.1.g Implement annual meetings with rental property owners and managers to discuss crime/drug free housing, rental housing trends and updates to the City licensing program
- 3.1.h Create/send annual surveys to residents for input on both code enforcement and rental licensing program
- 3.1.i Promote National Code Compliance Month during the month of October
- 3.2.a Create an impactful brand and communication campaign for the code enforcement and rental licensing programs
- 3.3.a Quarterly review of rental license and code enforcement webpage
- 3.4.a Include "Top 10 Code Violations" list with all new home certificates of occupancy (send to property owner)
- 3.4.b Include "Top 10 Code Violations" list with temporary certificates of occupancy (send to property owner)
- 3.4.c Annually update top 10 code violation list as needed to accurately reflect the most common violations and code changes







Code Enforcement Team Growth

This objective emphasizes the importance of comprehensive training, continuous learning, and professional growth for code enforcement staff. It prioritizes effective onboarding through both field and office-based mentorship, fosters a culture of safety as a core training principle, and ensures staff stay current with evolving codes and best practices at the state and national levels. Key outcomes include structured in-field training for new hires, annual participation in key industry conferences such as MAHCO and ICC Region III, and regular evaluations of training plans and budgets to support ongoing development. These efforts aim to build a knowledgeable, consistent, and safety-conscious workforce equipped to serve the community effectively.

Training and Development

Objectives:

- 4.1 Utilize effective field training and on-boarding to provide quality on-the-job training
- 4.2 Maintain effective training that emphasizes safety
- 4.3 Ensure code enforcement staff remain informed with national and state level code updates and maintain and develop skills required to perform job duties efficiently and consistently

Outcomes:

- 4.1.1.a Provide both in-field and office training with experienced code enforcement staff for all new employees
- 4.2.1.a Promote a work culture where safety is the foundation of training and onboarding
- 4.3.1.a Annually attend the Minnesota Association of Housing Code Officials (MAHCO) spring and fall training seminars
- 4.3.2.b Annually attend the International Code Council Region III conference



Future Trends

Advance the City's capacity to manage community expansion by strengthening the enforcement and sustainability of rental licensing, property maintenance and code enforcement programs. This includes ensuring equitable enforcement, aligning fees with program needs, and continuously evaluating operational effectiveness. Through regular reviews, data-driven assessments, and community engagement, the city will adapt its strategies and staffing to support responsible growth and maintain high standards of livability.

The Community Development staffing report identifies the Building Division's role and responsibilities, notes current trends such as permit volume, construction activity, regulatory complexity, and outlines key factors for future staffing decisions, including workload forecast, service level expectations, and exploring additional job positions for growth and retention.

TO: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

FROM: Samantha Drewry, Code Enforcement Officer

DATE: December 18, 2025

RE: Trash Container Storage - Ordinance Evaluation and Amendment

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Background

The City of Cottage Grove's Code Enforcement program was established to ensure that neighborhoods are clean, safe and healthy. Code Enforcement works on a primarily compliant basis to prevent unsafe, unsanitary issues from infringing on the rights of others in the community.

As part of ongoing efforts to improve code compliance and community satisfaction, staff is proposing a revision to the current trash container storage ordinance. The existing ordinance requires containers to be stored completely out of public view. Enforcing the current ordinance requires significant staff time and resources, which could be better spent addressing more serious violations—such as blight and safety-related infractions—or used to support broader proactive enforcement of all City codes.

The proposed code amendment would permit trash containers to be stored in view, provided they are positioned along the side plane of the home or garage. The photos below feature two properties located in Cottage Grove that recently received compliance notices for violating the current ordinance. Under the existing code, their container placement is considered noncompliant. However, both properties would meet the requirements of the proposed amendment and be deemed compliant.





Discussion

A review of ordinances from 17 peer cities across Minnesota shows that while all cities regulate trash container placement on a complaint basis, most offer a more flexible standard while still maintaining

curb appeal within neighborhoods. Only three cities—Apple Valley, Chanhassen, and Woodbury—require containers to be completely out of public view. In contrast, the majority of peer cities permit containers to be placed behind the front setback line of the home, often requiring screening only when containers are in front of the home and emphasizing maintenance of the trash containers over strict placement. Cottage Grove's "out of view" requirement stands out as restrictive while other codes accomplish the same goal while providing some additional flexibility to the standard.

City	Trash Container Placement
Andover	No code regulating location of container, only maintenance of container.
Apple Valley	May be stored in side yard if screened from street and adjoining properties or stored within any structure on the premise.
Blaine	No code regulating location of container, only maintenance of container.
Brooklyn Center	Containers must be placed behind front setback of residence or located in the garage.
Burnsville	Placement may not violate fire or building codes.
Champlin	Containers can't be stored in the area between the street and the front plane of the house or garage.
Chanhassen	Completely out of Public View or screened.
Chaska	No code regulating location of container, only maintenance of container.
Coon Rapids	Containers must be placed no closer to the street than the existing front yard setback of the residence.
Cottage Grove	Completely out of Public View or screened.
Eagan	Containers must be stored inside dwelling unit or garage or at a point behind the front of the dwelling unit or garage or placed behind the front plane of the home.
Eden Prairie	Containers in front yard must be screened from public street with opaque fence or coniferous landscape material.
Inver Grove Heights	Containers must be kept near the primary building or enclosed area.
Lakeville	Within principal structure or in an accessory enclosure. Accessory enclosure in side or rear yard setback 10 ft. from property line. Enclosure must be approved by planning and building.
Minnetonka	No code regulating location of container, only maintenance of container.
Oakdale	Prohibited from front of house and garage.
Roseville	Completely closed hauler-provided containers may be stored behind front line of primary structure, but not in street-facing side yard of corner lot.
Woodbury	Completely out of Public View or screened.

Enforcement data from 2021 through 2025 YTD indicates a steady increase in cases involving trash container storage violations. Assuming each case requires only an initial inspection and one follow-up inspection—with no additional visits, it is estimated that approximately 0.5 hours of staff time is required per trash container violation case.

Based on this estimate, the total staff hours dedicated solely to resolving trash container violations with a single letter response are as follows:

Year	Total Cases	Cases that Include Trash Container Storage Violations	Staff Hours dedicated to Trash Container Violations
2021	491	192	96
2022	318	114	57
2023	256	100	50
2024	613	344	172
2025 YTD	724	461	231

While the City's current residential code enforcement program is primarily reactive, staff are actively working to transition toward a more proactive approach. This shift aims to identify and address violations early, before they escalate into more significant nuisances.

During the City's first proactive sweep in the summer of 2024, staff inspected residential properties and found 342 properties in violation of one or more property maintenance codes. Of these, 252 cases (73%) involved trash container storage violations, making it the most common violation identified as part of the sweep. Notably, under the proposed ordinance amendment, 146 of those cases (58%) would have been considered compliant (73 staff hours).

In the summer of 2025, two additional proactive sweeps were conducted. The first sweep identified 222 total violations, with 191 being trash container storage. Of those, 132 cases (69%) would have been compliant under the proposed amendment. The second sweep found 91 violations, 85 being trash container storage; 46 cases (55%) would have been considered compliant with an amended ordinance (89 staff hours over both sweeps).

These findings strongly suggest that the current ordinance contributes to a high volume of enforcement activity. Had the proposed amendment been in place during these sweeps, it would have allowed for an estimated 162 staff hours to be redirected toward addressing more serious property maintenance violations, expanding proactive enforcement efforts citywide, and public education and outreach.

Year/Sweep	**Total Properties in Violation**	**Number of Trash Container Storage Violations**	**Number of Trash Container Storage Violations Compliant with Proposed Ordianance**	**Staff Hours Saved with Proposed Ordianance Change**
2024	342	252	146	73
2025 Sweep 1	222	191	132	66
2025 Sweep 2	132	85	46	23
Total	696	528	324	162

The proposed ordinance amendment allowing trash containers to be stored in view along the side plane of the home or garage, would allow the City of Cottage Grove to align with regional community codes while still maintaining neighborhood aesthetics and curb appeal. An estimated 162 hours annually of staff time could be redirected during the busy summer months and proactive sweeps alone. This staff time could be redirected toward higher-priority initiatives, such as expanded proactive code enforcement and enhanced public outreach and education. Given the substantial and

growing number of complaints and violations related to container placement, this amendment reflects a more practical and community-oriented approach. It acknowledges the reality that many residents already store containers in these areas and seeks to balance effective code compliance with resident satisfaction and operational efficiency.

Recommendation

Discuss amending the current trash container storage ordinance which would allow containers to be stored along the side plane of the home or garage as long as it is not located anywhere in front of the house or garage and provided they do not obstruct public pathways or violate other applicable codes.

The photos below demonstrate where trash containers may be placed under the proposed ordinance. Areas marked with a red “X” indicate placements that would not comply with the updated code, while those marked with a red circle show locations that would be considered compliant.





City Council Action Request

7.A.

Meeting Date	1/10/2026
Department	Administration
Agenda Category	Presentation
Title	Economic Development Strategic Plan Report
Staff Recommendation	Receive the Economic Development Strategic Plan Report.
Budget Implication	N/A
Attachments	1. Economic Development Update_Strategic Planning 2026

TO: Honorable Mayor and Council
Jennifer Levitt, City Administrator

FROM: Nate Carlson, Economic Development Manager

DATE: January 10, 2026

RE: Economic Development Strategic Report 2026

Background

The following report is a snapshot of current and future commercial and industrial development opportunities within the City of Cottage Grove, Minnesota.

This report was prepared for the Council Strategic Planning session for January 10, 2026.

City of Cottage Grove Economic Development Updates

INDUSTRIAL DEVELOPMENT

Northpoint/Industrial Park

100th Street Expansion/3M Properties/ Innovation Village

Van Meter

WAG Properties

COMMERCIAL DEVELOPMENT

Real Estate Equities Apartments

Roers Apartments

Yellow Tree Apartments

Shoppes at Cottage View

7162 East Point Douglas RD

Cedarhurst Mansion

Kwik Trip 95th/Jamaica

Kwik Trip Highway 61/Highway 95

Business Retention and Expansion Updates

NorthPoint/Industrial Park

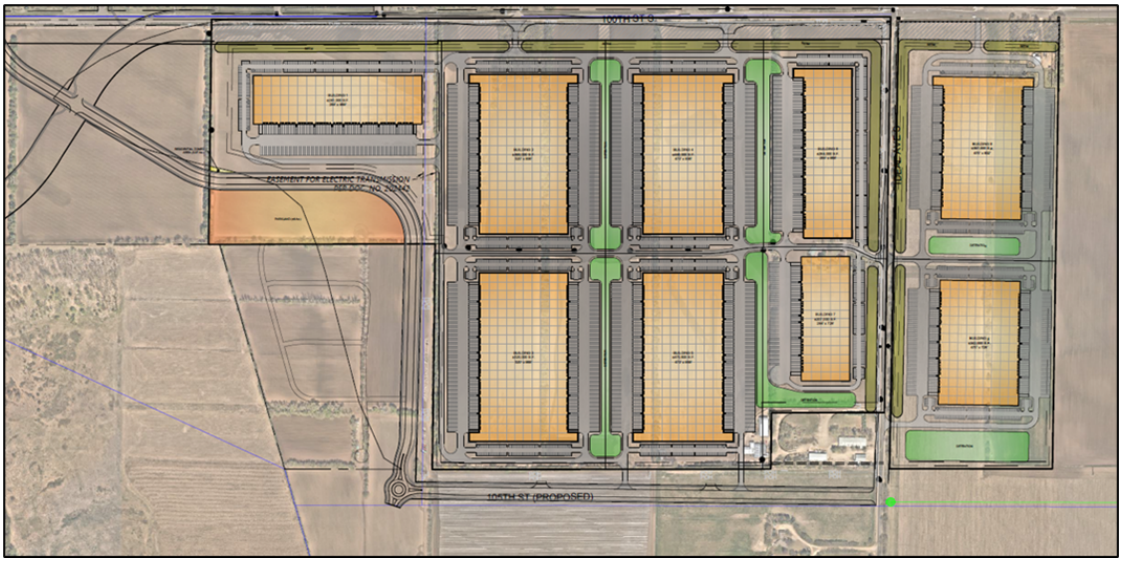
South of 100th Street/West of Ideal Avenue

Background

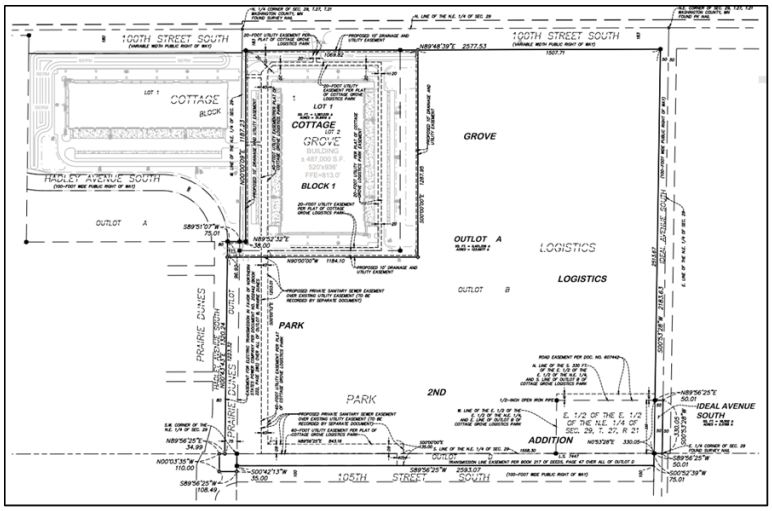
NorthPoint Development received a Master Site Plan and preliminary plat approval in December 2021 for Cottage Grove Logistics Park, consisting of approximately 252 acres of land, and the Master Site Plan approved nine separate warehouse, manufacturing, distribution, and office space buildings.

In 2024, NorthPoint Development acquired an additional 38.85 acres of land comprised of two parcels and amended the Cottage Grove Logistics Park Master Site Plan to include those additional 38.85 acres. A Conditional Use Permit was also approved at that time for a Data Center Use over the Cottage Grove Logistics Park Master Site Plan.





In October 2025, Northpoint received approval for a preliminary/final plat to modify the south and east lot lines of the Cottage Grove Logistics Park plat. The request was made to fully encompass the improvements on Lot 2 of the existing plat, including private stormwater management, drive access, and utility lines in anticipation of Outlot A being sold independently to an outside buyer.



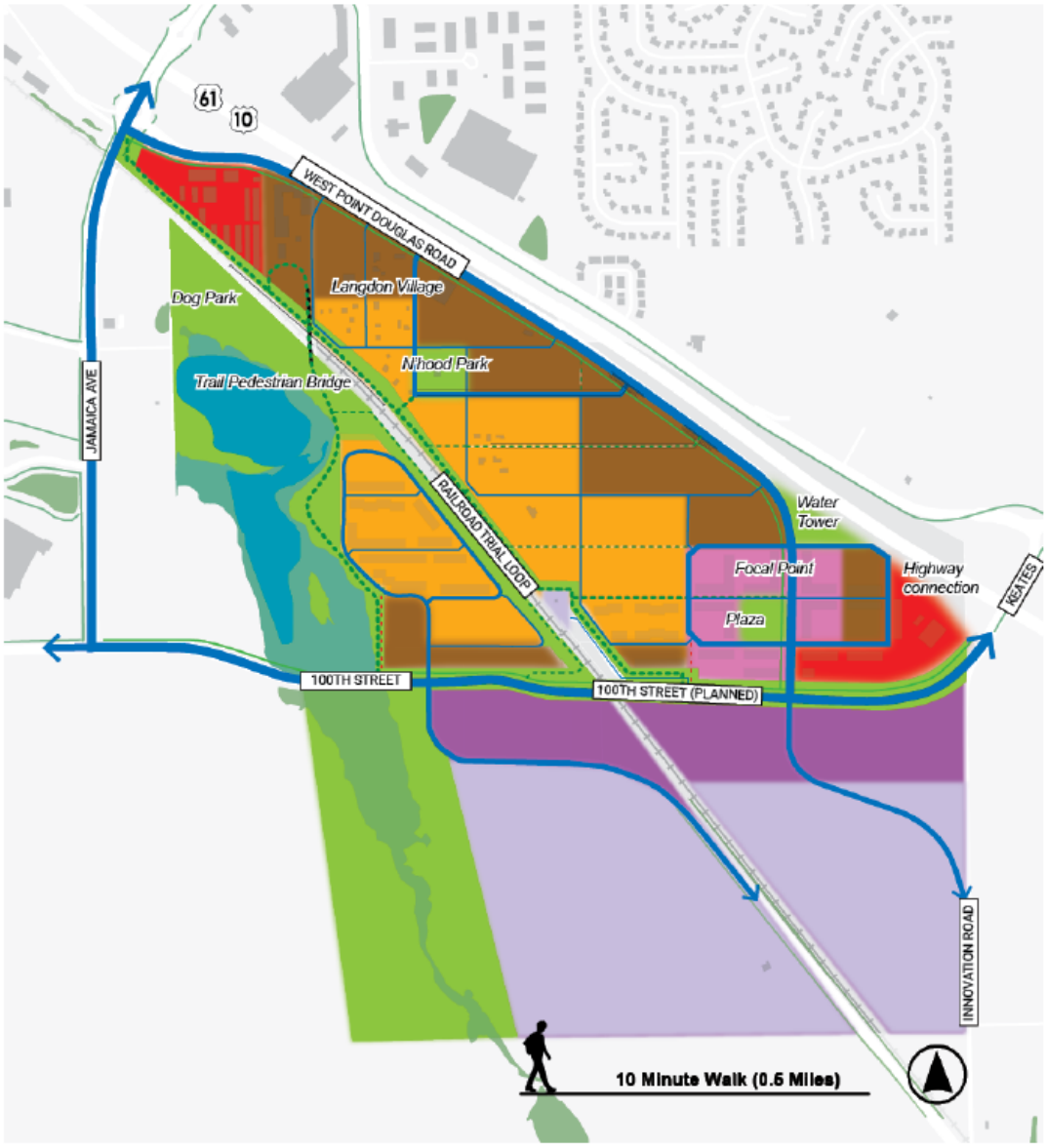
Next Steps for 2026:

The plat has received approval but still needs to be recorded. We have not been approached yet about any development plans for Outlot A, however, the site does have an existing conditional use permit approval for a Data Center. Staff will continue to recruit interested developers for future industrial development. In addition to recruitment, staff will continue to work with Xcel Energy to further develop plans for bringing power to this site.

100th Street Expansion/3M Properties

Innovation Village

Figure 2: Concept Plan



Legend

Mobility Network
- Street (existing, planned)
- Concept street
- Trail (existing, planned)
- Concept trail

Land Use
- Mixed Use
- High Density
- Medium Density
- Park
- Industrial
- Highway Commercial

Environment
- Waterbodies
- Wetlands
- Parks. open space

Background:

The Innovation Village Small Area Plan was drafted in 2024 for future development south of Highway 61 and west of Innovation Road. The area will become more accessible when 100th Street is extended over the railroad to connect to Innovation Road at Highway 61. West Point Douglas Road would continue southeast and connect with the future 100th Street.

A large portion of the land within the proposed Innovation Village is owned by 3M as a buffer to their campus. 3M is hesitant to sell any of their property especially for development of commercial or residential uses.

The City submitted an application in 2025 to the state Transportation Economic Development Infrastructure (TEDI) program for funding of the 100th Street expansion. However, the project was not selected to receive funding.

Next Steps for 2026:

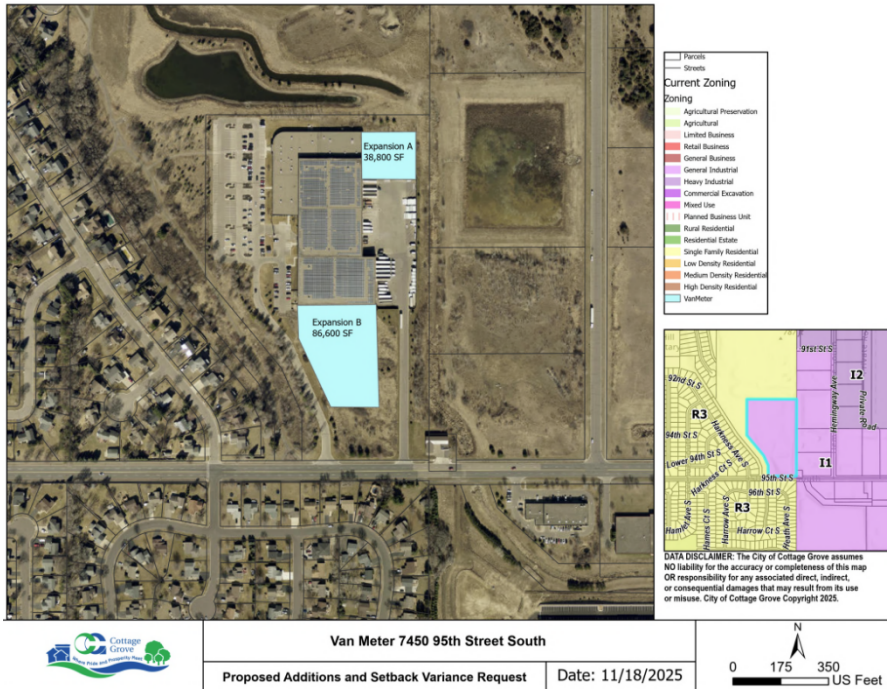
- In 2025, City staff worked cooperatively with Washington County on the design and environmental documentation for the County 19A & 100th Street Realignment Project. This included determining a final alignment of the roadway, allowing right-of-way acquisition to begin in 2026. City staff also continue to aggressively pursue funding for the project. This includes a MnDOT LRIP grant application in December 2025, a federal BUILD Grant to be submitted in early 2026, and a $22.5 million state bonding request during the 2026 legislative session.
- Staff has received approval from the landowner of the Majestic Ballroom to conduct environmental testing. This site is prime for redevelopment as part of the larger Innovation Village plan. The City has completed environmental testing for this site. In spring 2026, staff will proceed with a blight test review of the existing building with the intent to submit for funds from the state through the redevelopment grant program to assist with environmental mitigation and demolition.

Van Meter Electric

7450 95th Street - Main Facility Site

Background

Van Meter Inc. has submitted a Variance and Site Plan Review for building additions to Van Meter's existing facility located at 7450 95th Street South. The addition is comprised of two expansion areas; Expansion A and Expansion B. Expansion A is located at the northeast corner of the existing building and is approximately 38,220 square feet. Expansion A will be used primarily for warehousing. The applicant has requested a variance to the required setback to the north property line at Expansion A. Expansion B is located on the south end of the existing building and is approximately 86,720 square feet. Expansion B will be used primarily for receiving, warehousing, and will-call operations.



Next Steps for 2026:

Van Meter plans to break ground in spring 2026. A ground-breaking ceremony will occur when the business is ready to begin construction. Prior to construction staff will also explore additional subsidy opportunities with DEED through the Minnesota Investment Fund (MIF) and Job Creation Fund (JCF) to incentivize the business to continue investing in Cottage Grove.

WAG Properties

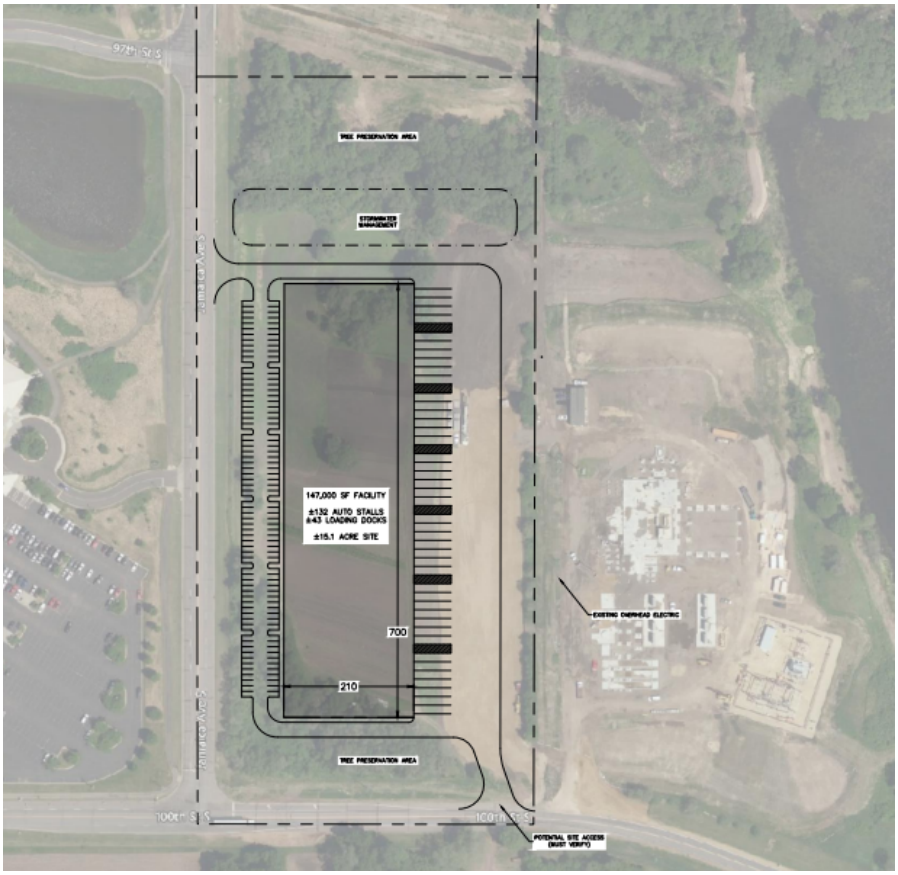
Jamaica Ave South & 100th Street South

Background

The City of Cottage Grove has a unique opportunity to participate in an industrial development project with respect to two properties along Jamaica Ave and 100th Street. The WAG properties have an exclusive partnership with the City to act as the broker to facilitate development between current ownership and future parties.

Next Steps for 2026:

Previously interested developers have determined that this site could facilitate a 150,000 square foot industrial building with docks and loading bays. In 2026, staff will continue to facilitate discussions with local businesses about potential expansion opportunities on this site. Staff will also recruit development from outside the community as well. Staff continues to receive interest from potential buyers, and staff will work through Letters of Intent (LOIs) and provide the EDA with the opportunity to act on future opportunities.



Real Estate Equities Apartments

10015 Hamlet Avenue

Proposal:

164-unit affordable rate multi-family housing rental apartment. All units will be affordable to those making on average 60% of the area median income (AMI).

2025 Income Limits by Household Size: Washington County		
AMI	1 Persons	Family (4 Persons)
60%	$55,620	$79,440
2025 HUD maximum gross rents by bedroom size: Washington County		
AMI	1 Bedroom	3 Bedroom
60%	$1,389	$2,065

There will be 3 units at 30% AMI, 15 units at 50% AMI, 122 units at 60% AMI, and 24 units at 70% AMI.

A Housing Study was completed in 2024 by Maxfield Research. Cottage Grove has a 0% vacancy rate for affordable rentals. Most affordable rentals in Cottage Grove are two bedrooms (51%). One-bedroom units make up 23% of the units and three-bedroom units are 24%. There will be a mixture of studio, one-bedroom, two-bedroom, and three-bedroom units in the Real Estate Equities project.



Funding:

Local Affordable Housing Aid (LAHA), Cottage Grove will dedicate its LAHA funds for 2024, 2025, and 2026 for an estimated total of $916,000 to the project as a forgivable loan. The City Council approved use of LAHA funds on November 19, 2025.

Multifamily Revenue Bonds (Conduit Debt), issuance for maximum $50,000,000. City will receive a tax-exempt administrative issuance fee of 1% on the first $10,000,000 of bonds and 0.5% for the remaining amount of funds. Council approved these bonds on November 19, 2025.

Livable Communities Demonstration Account (LCDA) grant through Met Council. The project was awarded $785,000 of LCDA funds by the Met Council on November 14, 2025. Grant agreements are forthcoming from the Met Council. The Council adopted a resolution of support for the LCDA grant application on August 6, 2025 and the Council will accept the grant on December 17, 2025.

Where are we Now?

Real Estate Equities hopes to close on the land before the end of 2025. The City will work through the LCDA grant acceptance and distribution which will be a loan to be repaid in 15 years. This will be finalized around April 2025 so Real Estate Equities can have an executed agreement before June 1, 2026.



Roers Apartments

6850 East Point Douglas Road

Proposal:

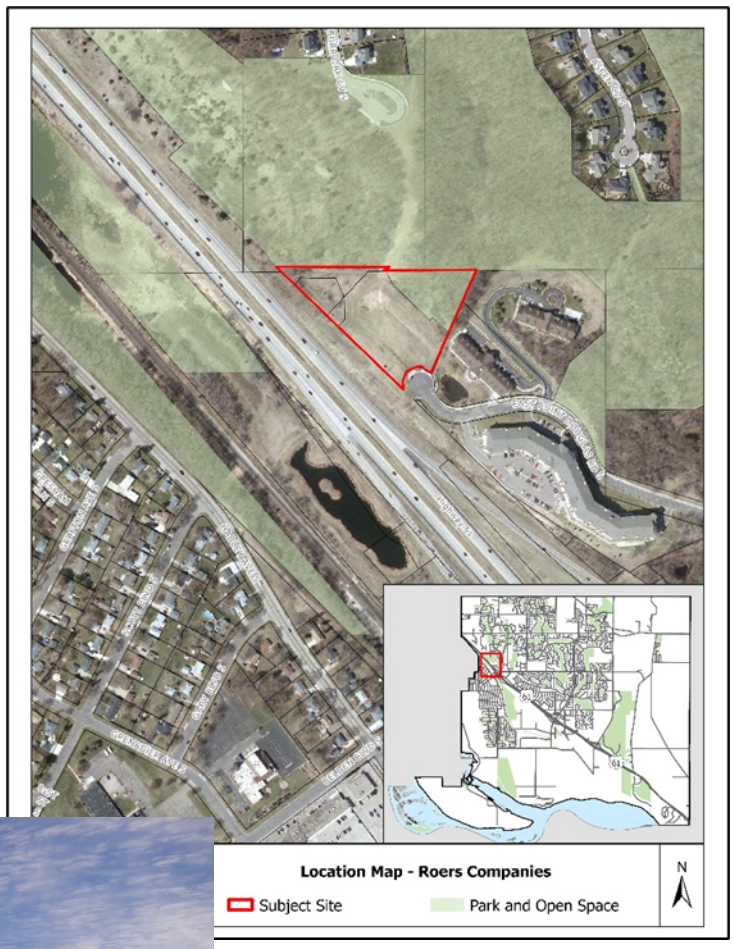
144-unit mixed-income multi-family housing rental apartment. There will be 29 units at 50% AMI, 8 units at 60% AMI, and some naturally occurring affordable housing at 70-80% AMI. There will be a mixture of studio, one-bedroom, two-bedroom, and three-bedroom units.

Funding:

Tax Increment Financing approved for no more than 15 years with present value of $1.96 million (TIF District 1-21). The TIF agreement was amended by the EDA on November 19, 2025.

Where are we Now?

Roers has closed on the land and will close on financing very soon. The building permit for the building and a large retaining wall will be issued in short order. Roers anticipates starting construction in December 2025.





Yellow Tree Apartments

East Point Douglas Road

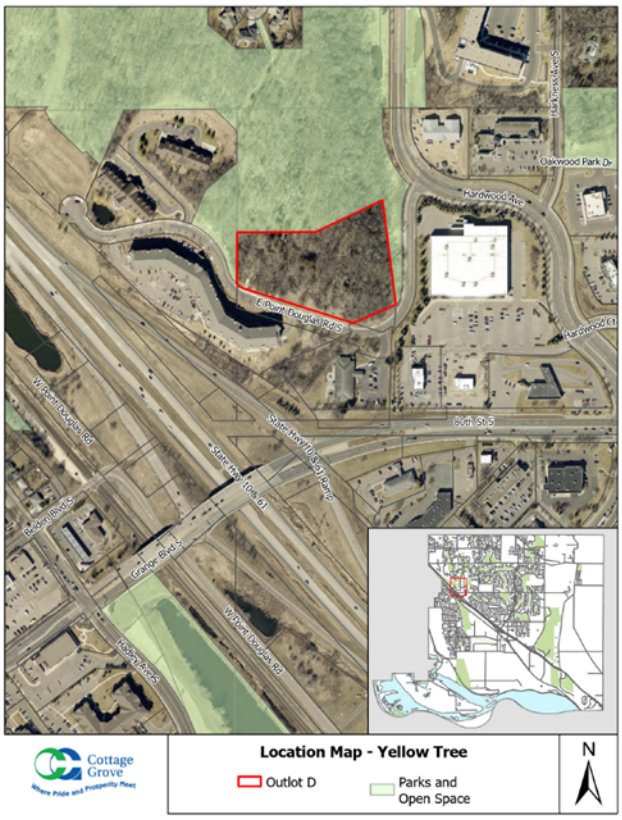
Proposal:

186-unit market-rate multi-family housing rental apartment. There will be a mixture of studio, one-bedroom, two-bedroom, and three-bedroom units.

The site is encumbered by a conservation easement above the 860-contour line and a trail easement in favor of the MN Land Trust and City of Cottage Grove. No structures, grading, or vegetation removal may occur above the 860-contour. The trail easement must remain in its existing location and natural condition. This has made designing the proposed development difficult.

Funding:

The City Council supported the use of tax abatement for the project on March 19, 2025, as the project does not qualify for TIF as a market-rate project on a vacant site. The proposed development would require 10 years of abatement with a principal or present value of the abatement no more than $848,000. It was also recommended a lookback provision be included on the total development costs.



Where are we Now?

Yellow Tree applied for Site Plan Review and Planned Unit Development consideration on October 29, 2025. The proposal shows the driveway entrance on City-owned property. The developer must purchase this land from the City and plat the two parcels together. The plat must also be reviewed by the Planning Commission and approved by Council.

Upon reviewing the plans, it was noted the proposed building encroached into the trail easement. After discussions with the Land Trust, it was determined that the trail easement cannot be amended and the developer must revise their site plan. The request for a Site Plan Review, Planned Unit Development, Preliminary Plat, and Final Plat are now scheduled for a public hearing with the Planning Commission on

December 15th. Council action is expected on February 18, 2026, which is also when action is anticipated for the tax abatement request.



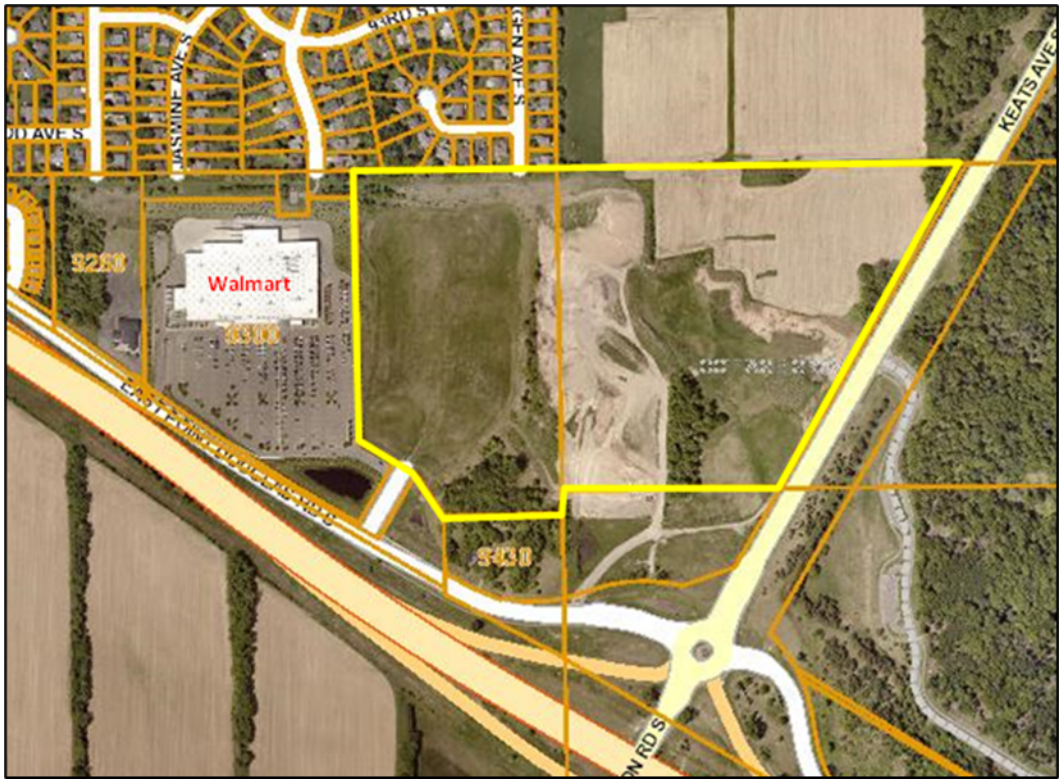
Shoppes at Cottage View

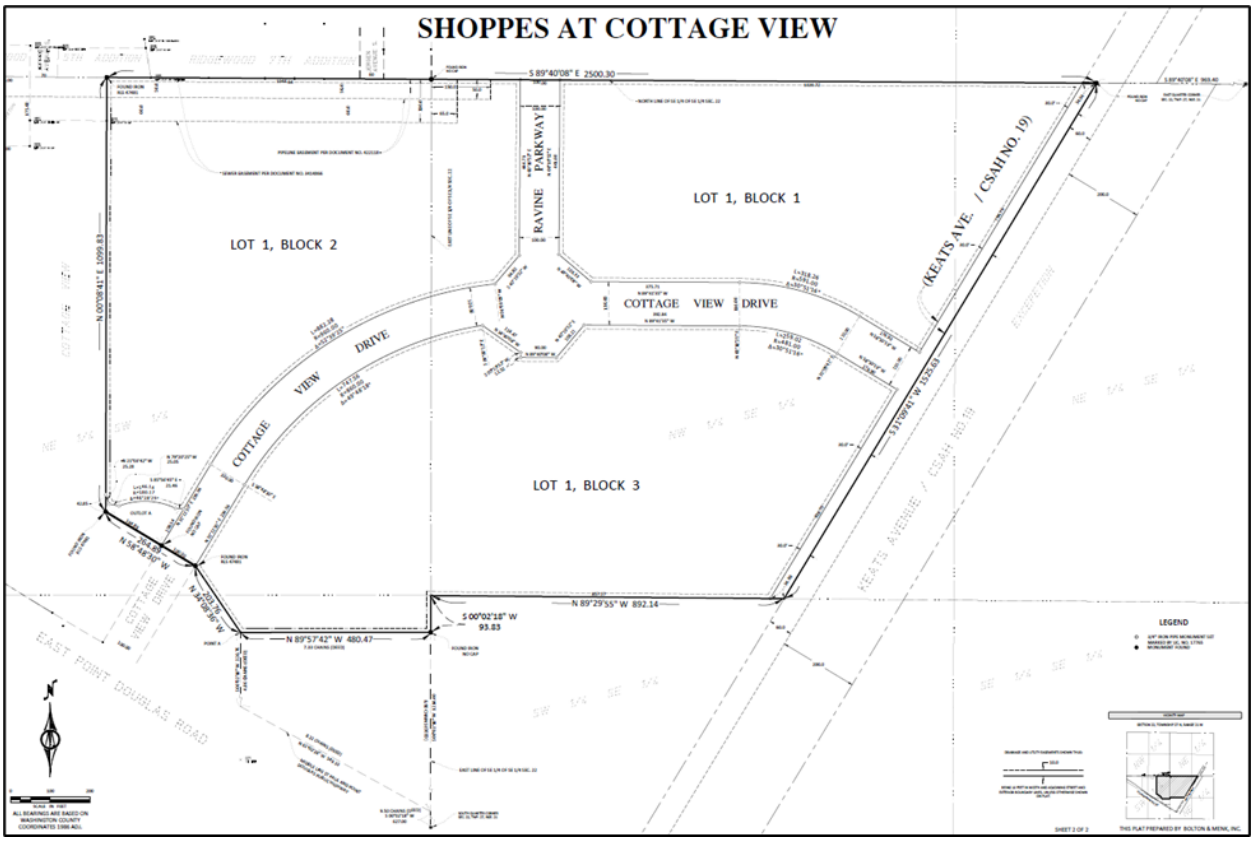
West of Keats AVE/North of East Point Douglas RD
Hotel request for Proposal - 2025

Background

The Shoppes at Cottage View is an approximate 73-acre site available for development at the northwest corner of East Point Douglas Road and Keats Avenue (County Road 19). The Shoppes property has been discussed for many years as an ideal location to build a city center to function as downtown locale since the city actually doesn't have a traditional "downtown" like many cities have. In 2021, the City of Cottage Grove applied for a preliminary and final plat for a portion of the Shoppes at Cottage View site to subdivide approximately 55.82 acres of land from the entire site.

The site has been planned for mixed use development including commercial and higher density residential uses.





Where are we now?

This project has not progressed since receiving plat approvals. The Shoppes property has been under an option contract with a consultant, River Caddis since January of 2023 and the option expired at the end of 2025. The parcel at 9430 East Point Douglas RD (Ross Prpoerty) was recently purchased by the Cottage Grove EDA for a proposed hotel development. An RFP for a hotel opened earlier in 2025 and no proposals were received.

Next Steps for 2026:

Staff continues to seek interest from a hotelier for the 9430 East Point Douglas property Staff will recruit additional multi-family and commercial developers for the remainder of the Shoppes site. In addition to recruiting developers, staff is exploring redevelopment grants with the State to assist with site preparation (i.e. demolition, clean-up, and potential site grading).

7162 East Point Douglas Road

Background

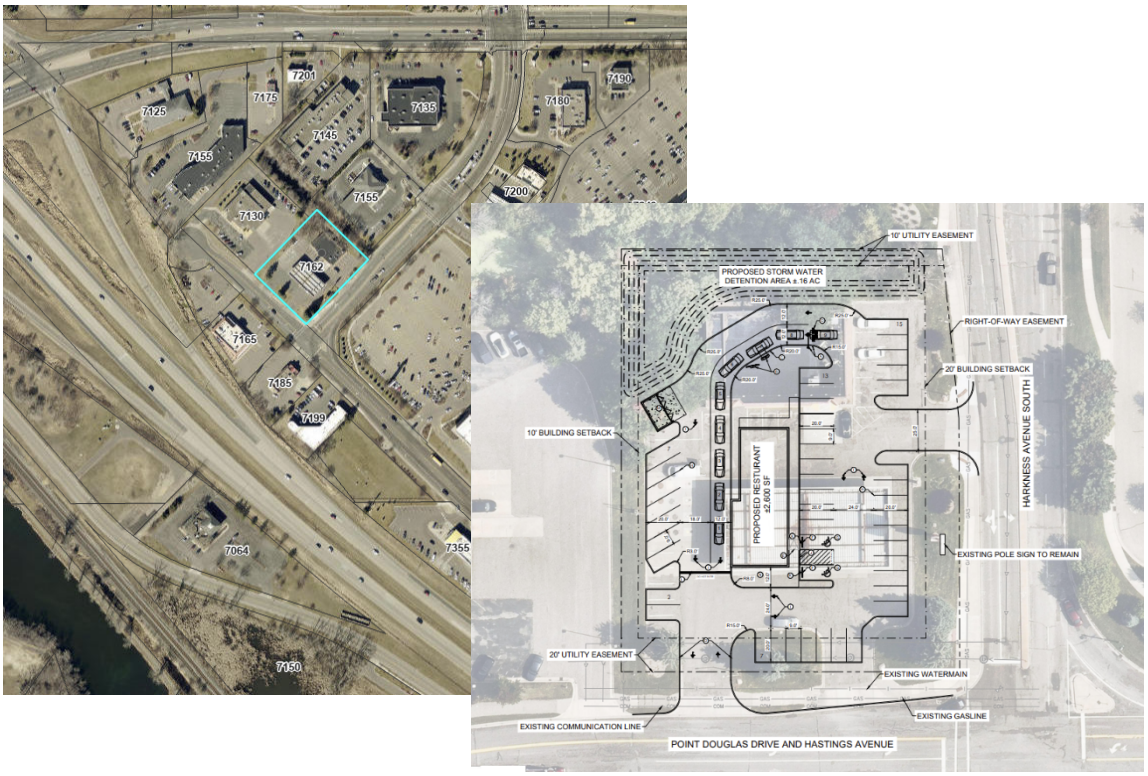
Formerly Speedway gas station, 7162 East Point Douglas Road is located south of 80th Street and across from Hy-Vee. The Speedway closed earlier this year and the property was placed for sale. The City has since been approached by a proposal for a fast casual drive-thru restaurant with outdoor patio seating.

Where are we now?

Planning and engineering staff have been reviewing preliminary plans for the site and providing initial feedback to the developer. Engineering staff have also been communicating plans to the developer for the 80th Street and East Point Douglas Rd rehabilitation project planned for 2026.

Next Steps for 2026:

Additional opportunities exist for commercial redevelopment of the Wakota Inn and adjacent parcels. Staff will continue to explore redevelopment opportunities with current property owners.

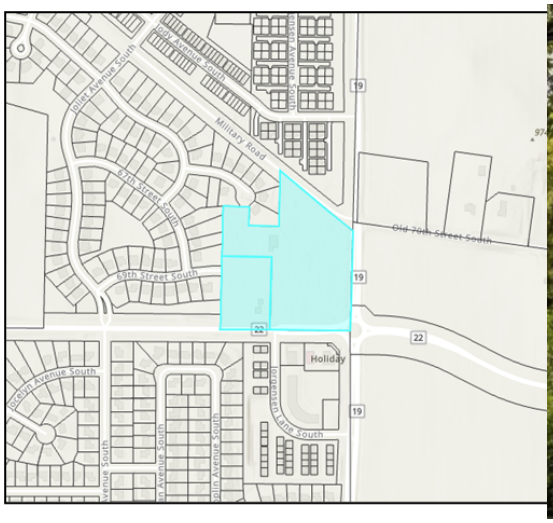


Cedarhurst Mansion

6940 Keats AVE and 9912 70th ST

Background

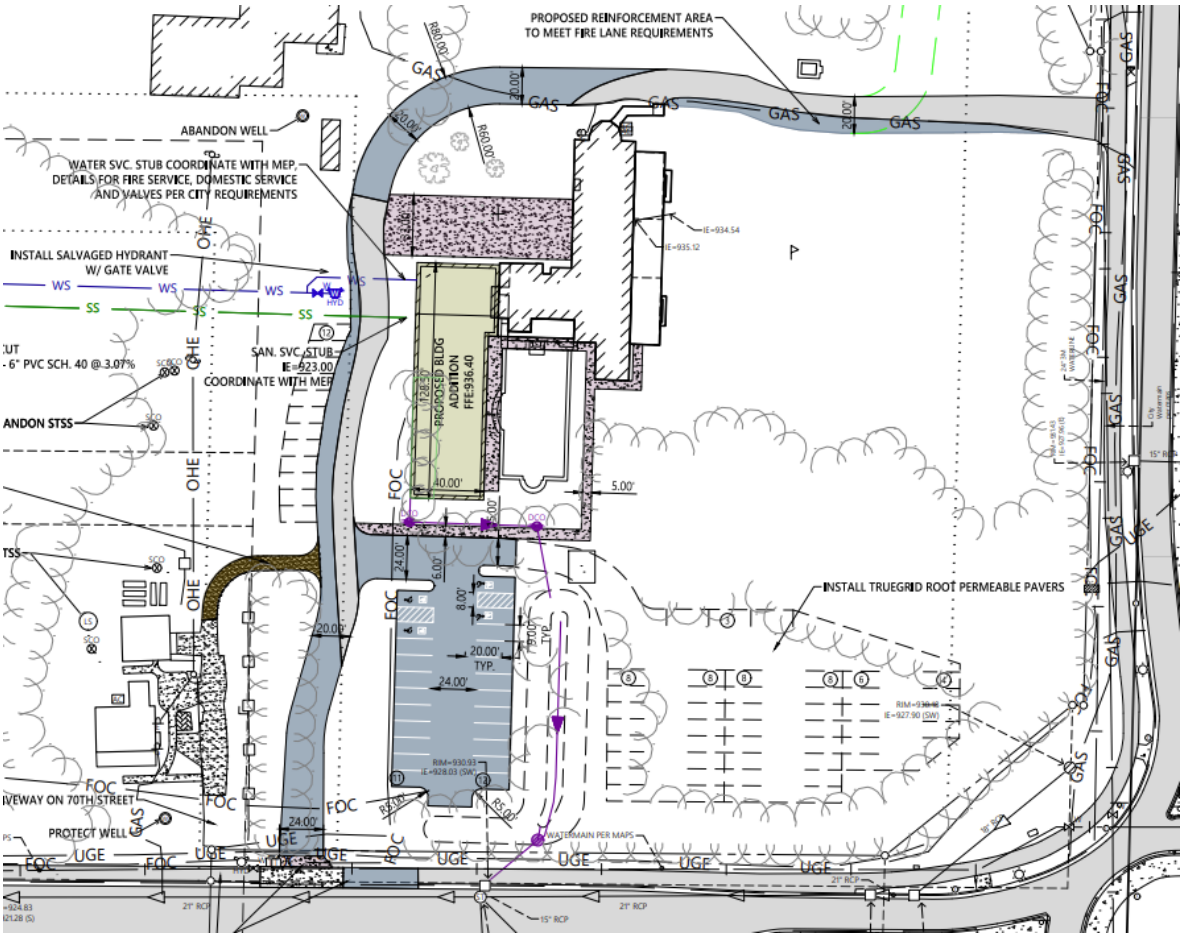
Cedarhurst Mansion, historically known as the Cordenio Severance House, is situated on an approximate 10-acre parcel at the intersection of County Road 22 (70th Street) and County Road 19 (Keats Avenue), which also houses several outbuildings. Adjacent to the Mansion is the historic Gardener's Cottage at 9912 70th St. The site and Mansion are listed on the National Register of Historic Places and the City's Register of Historic Sites and Land-marks. The original part of the house was built in the 1860's and later expanded, presumably in the later 1800s/early1900s, most notably including the addition of a ballroom and bedroom to the north side of the building in 1917 by Architect Cass Gilbert.





Initial Proposal

Bellagala Wedding and Events was the prospective buyer/developer of both parcels (9912 70th Street and 6940 Keats Avenue) and received Historic Conditional Use Permit and Site Plan approval in August 2025 for improvements to the Mansion and utilization of the Mansion as a year-round wedding and event center, including use of outdoor ceremony space and indoor reception space, with a maximum seating capacity of 190. Bellagala's proposal also included use of the Gardener's Cottage property in conjunction with the commercial event/wedding venue on the adjacent parcel at 6940 Keats Avenue as an internal staff meeting space. At the time of the initial proposal, the city granted a business subsidy to support the project in the form of a forgivable loan in the amount of $37,275. However, a later subsidy request revoked this original subsidy offering.



Where are we now:

Since receiving approvals in August, Bellagala stepped away from the project due to financial difficulties. Given a proposed reconfiguration of subsidy support to preserve the historic Mansion and the Site, the previously approved subsidy is no longer supported and was rescinded (December 3rd). After additional planning and negotiations, Bellagala came back to the project and worked with the City for a new $2 million business subsidy agreement. A portion of this loan is forgivable so long as Bellgala performs on the project and makes timely loan payments. The business subsidy was approved by the EDA on December 2, 2025.

Next Steps for 2026:

Staff will continue to monitor the development of Cedarhurst, and staff will report to council on the status of loan repayment on a regular basis. Staff will also seek additional ways to support this venue and other event venues within the community.

Kwik Trip

95th ST/Jamaica AVE

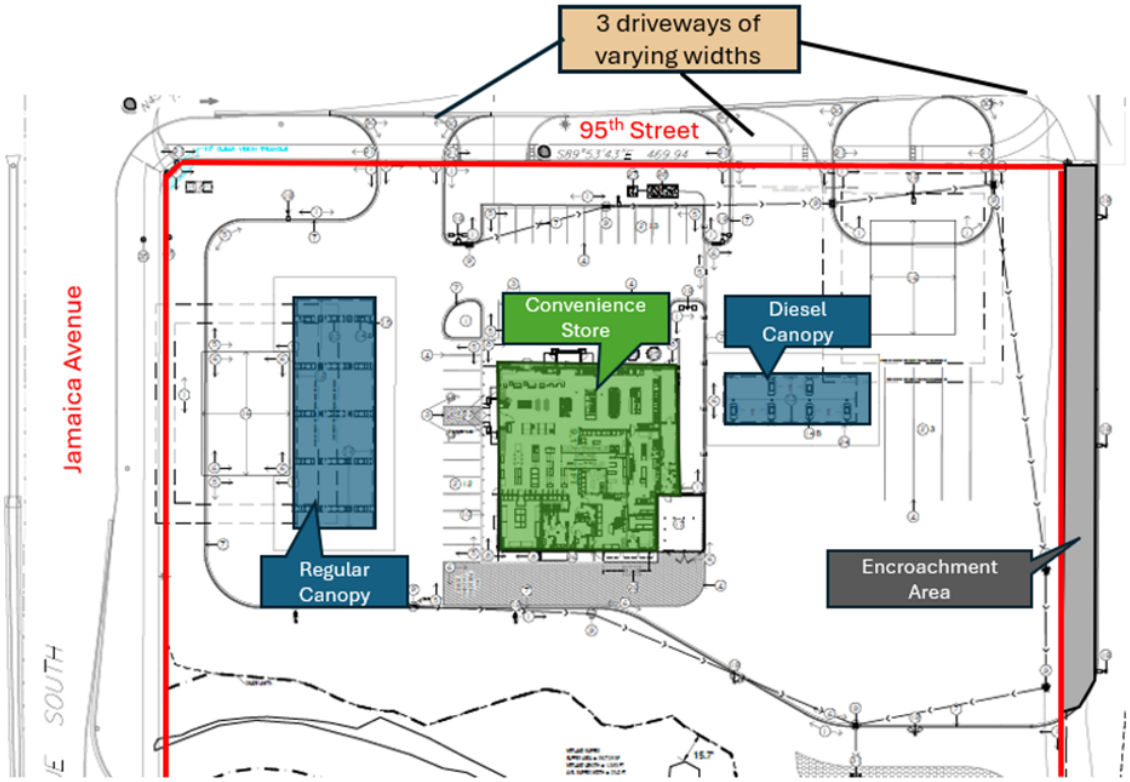
Proposal:

City Council approved a Conditional Use Permit, Site Plan Review, and Variances for a Kwik Trip at the corner of 95th ST and Jamaica AVE in April 2025.



Where are we Now?

Kwik Trip has indicated they hope to break ground in summer 2026.



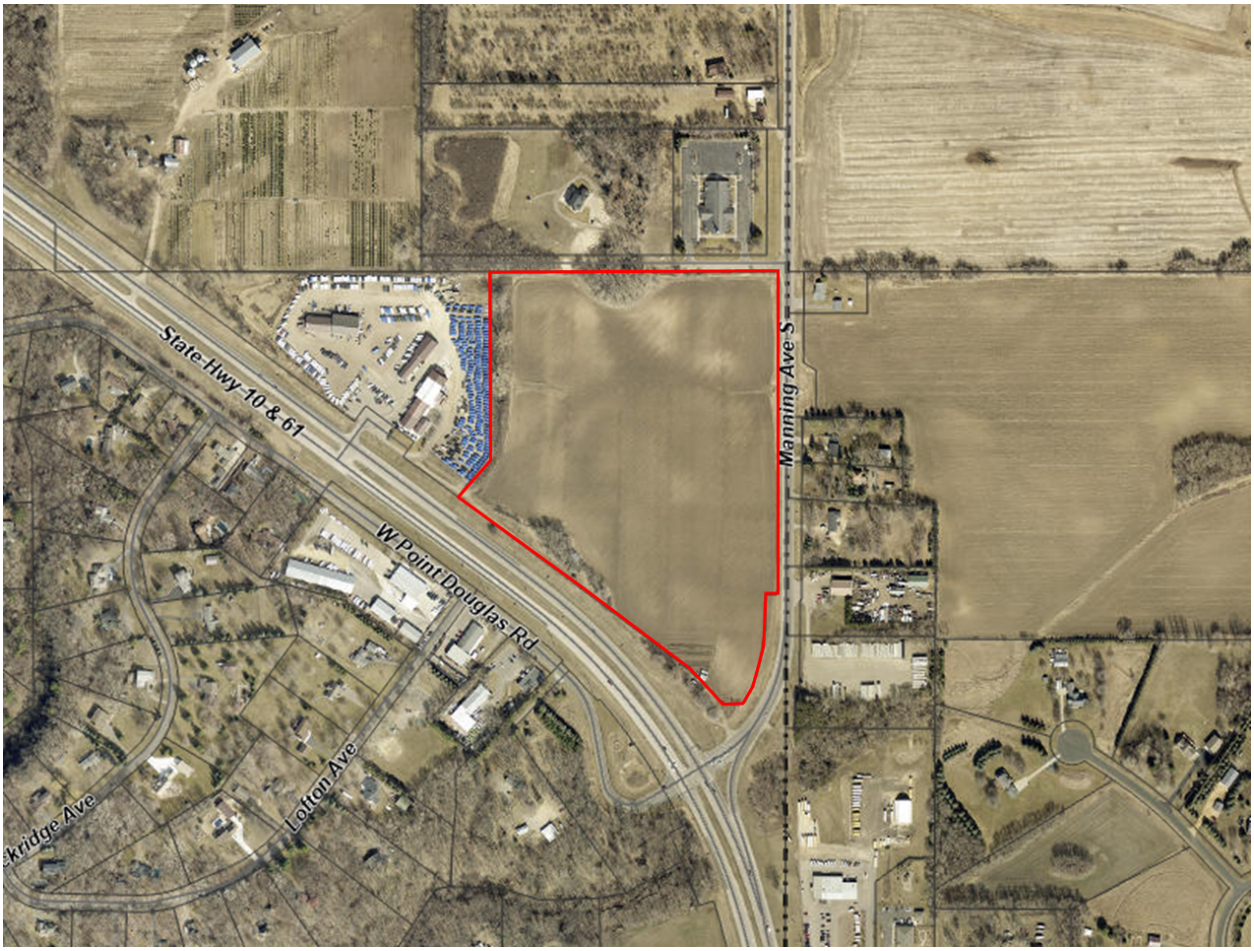

FRONT LEFT VIEW

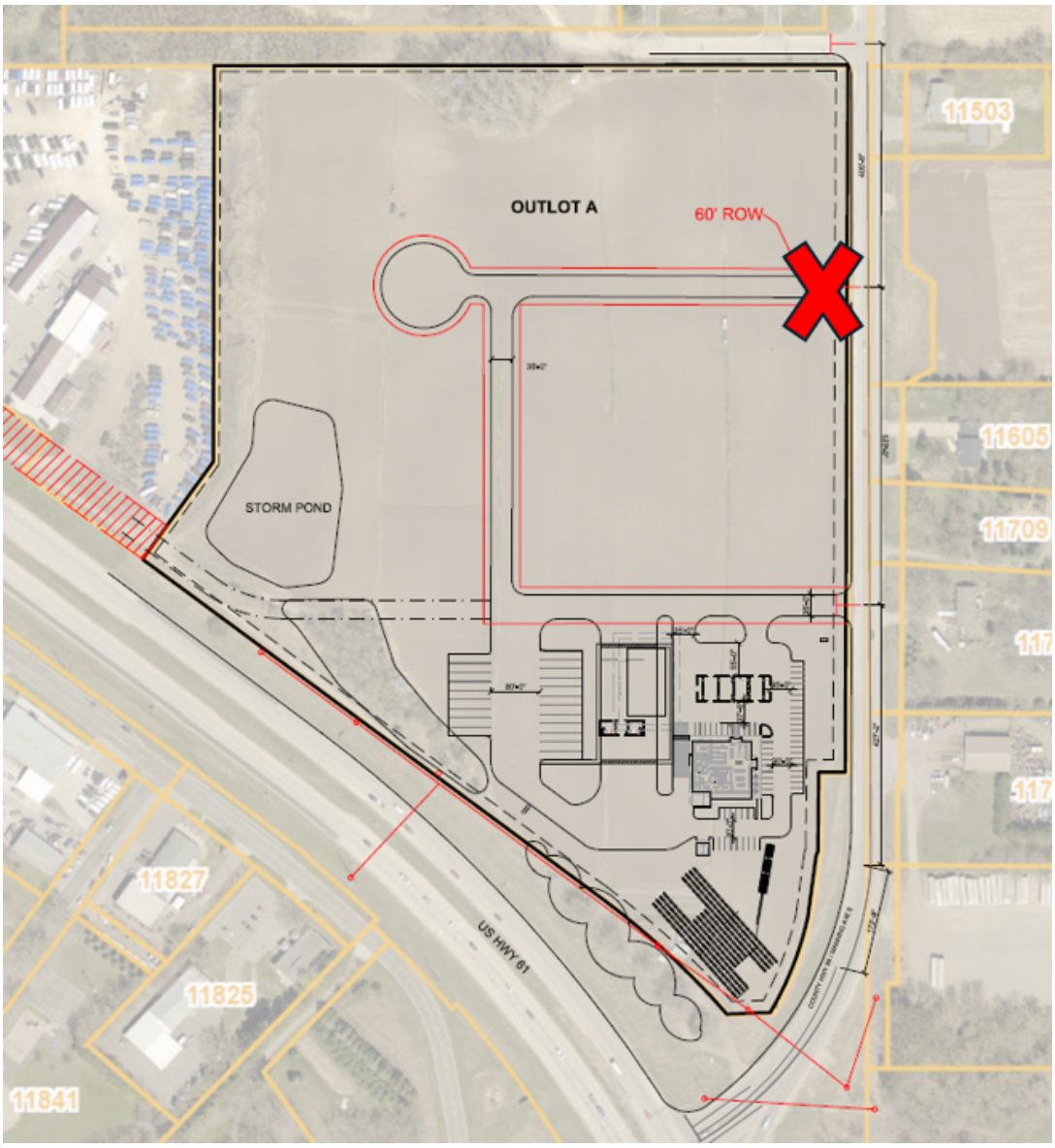
Kwik Trip

Highway 61/Highway 95

Background:

Kwik Trip has proposed a second site at the corner of Highway 61 and Highway 95. The property would be on private well and septic system. Kwik Trip purchased the 30-acre site and will develop their store in the southeast corner, leaving the rest of the site open for potential future development.





Where are we Now?

Kwik Trip is required to dedicate right of way for 114th Street on the north side of the development. Kwik Trip has been reluctant to do this due to the safety of sight lines on 114th Street to Highway 95. 114th Street is shown in the Comprehensive Plan as an arterial road and staff agrees the sight lines need to be amended however the right of way is required to be dedicated in its proposed location. Kwik Trip has also been working with MnDOT on proposed turn lanes.

These items have delayed the application process. Planning staff anticipates Council approval of a Site Plan, Conditional Use Permit, and Plat in quarter one or two of 2026.

Business Retention and Expansion Updates

Background:

Business Retention and Expansion (BRE) programs are a cornerstone of local economic development strategies. For Cottage Grove, our primary goal is to support existing businesses, helping them stay, grow, and thrive within the community.

Key Significance:

- **Economic Stability and Growth**: Existing businesses are already invested in the community and provide a stable foundation for job creation, tax revenue, and local spending. Supporting their growth can lead to scalable economic gains.
- **Relationship Building**: BRE programs foster strong relationships between local government, economic development agencies, and business leaders. This collaboration builds trust and opens channels for feedback, problem-solving, and strategic planning.
- **Early Issue Detection**: Regular engagement with businesses helps identify challenges—such as workforce shortages, infrastructure needs, or regulatory barriers—before they escalate, allowing for timely intervention.
- **Workforce Development Alignment**: BRE efforts often uncover workforce trends and training needs, enabling communities to align educational and workforce development initiatives with real-time business demands.
- **Community Vitality**: Thriving local businesses contribute to a vibrant community by supporting local suppliers, sponsoring events, and enhancing quality of life through employment and civic engagement.
- **Competitive Advantage**: A proactive BRE strategy signals to businesses that the community values their presence, which can be a deciding factor in location decisions and future investments.

Next Steps for 2026:

1. Staff will establish a proactive BR&E program to:

- Strengthen relationships with existing businesses
- Identify and address barriers to growth
- Support job retention and creation
- Encourage reinvestment and expansion
- Align local policies and resources with business needs

2. The BR&E program will engage additional community stakeholders such as:

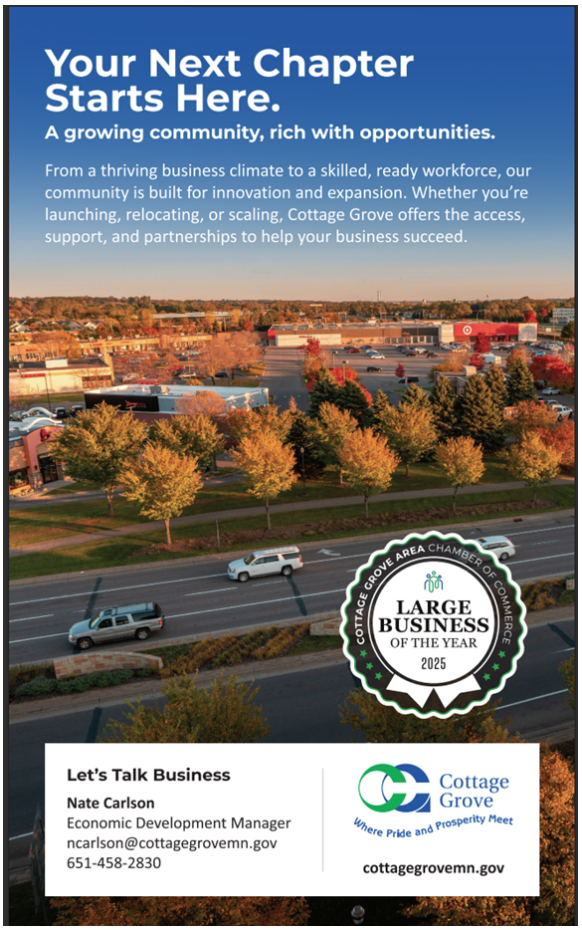
- City of Cottage Grove Economic Development Authority
- Cottage Grove Area Chamber of Commerce
- Washington County CDA
- Local workforce development agencies
- Utility providers and infrastructure partners

3. Staff will begin the business outreach strategy with a goal of engaging 24 businesses in the next year. Staff intends to conduct at least half of these visits in-person.

4. Staff will collect data from these visits through informal conversation rather than a survey tool. The goal of collecting data is to:

- Identify trends and common challenges
- Prioritize businesses needing immediate support
- Develop sector-specific strategies

5. Staff will report on the business retention and expansion program through quarterly updates to the EDA and stakeholders with an annual report given to the City Council.



City Council Action Request

8.A.

Meeting Date	1/10/2026
Department	Administration
Agenda Category	Action Item
Title	2025 Strategic Plan - Landscaping
Staff Recommendation	Receive information regarding the future of public landscaping practices and provide guidance to staff.
Budget Implication	N/A

Attachments

1.	Council Memo - 2025 Strategic Planning for Landscaping
2.	landscape Designs

Cottage Grove
Where Pride and Prosperity Meet

To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Zac Dockter, Parks and Recreation Director
Gavin Hochstetler, PW/Parks Project Manager
Cole Holmes, Parks Public Service Worker (Horticulturist)

Date: November 25, 2025

Subject: City Landscaping

Introduction
As the community grows, the resources exhausted for maintaining public gardens to appropriate standards of care has become increasingly difficult to manage. With over 300 landscaping beds across parks and right of way spaces, staff has been strategizing on the most sustainable approach to achieving the end goal of beautifying our public landscapes in high traffic areas of the community.

Background
Across the community, gardens vary in size and content to assure a dynamic public landscape. Beginning in the early 2000's, these landscaping features became a priority for city beautification. As such, the City grew from 25 gardens in the year 2000 to 325 in 2024. City Council has been supportive of this initiative by providing necessary funding for labor, equipment, fuel and materials (plants, mulch, fertilizer, irrigation, etc.). After spending thousands of hours in the field maintaining these features, staff is suggesting an alternative planting strategy to reduce maintenance resources of labor, equipment, materials and fuel while concurrently improving employee safety and maintaining higher quality landscaping features that draw visual appeal and highlight our community's beauty. In terms of public road right of way specifically, over the past 20+ years staff has realized the following challenges with large scale landscaping efforts:

1. Survivability is low due to urban heat island effect, soil compaction, salt and drought stress.
2. Constrained root space, poor soil aeration and road reflective heat stunt tree growth.
3. Safety concerns with staff working in busy right of ways for long periods of time. This ultimately limits amount of time spent in gardens and thus diminishes proper care for gardens (weed growth, plant die-off, deteriorate appearances and improper mulch cover).

70/30 Strategy
Staff has developed a 70/30 strategy which it feels will help guide future planning for large road right of way and building/facility projects. This strategy suggests use of 70% hardscape materials versus 30% softscape materials. Hardscape materials may consist of landscape rock, concrete, stamped concrete, boulders or cut rock, signage and more. Softscape materials are plants (annual and perennial), trees and mulch. Staff will highlight examples at the Strategic Planning Session to illustrate this concept.

The end goal of the 70/30 strategy is to:

1. Increase plant survival rate due to increased care within smaller softscape focus areas.
2. Increase visual appeal with color and fullness of planted areas (because survivability is high).
3. Increase employee safety by focusing beautification efforts to strategic eye-catching spaces.

4. Use of high-quality hardscape varieties to support the overall appearance of public landscapes. When properly planned, hardscapes can provide visual appeal while also drawing attention to the softscapes that “POP” with color.

Action Plan
With support of City Council, staff advises utilization of the Public Landscapes Initiative program to prioritize and fund these improvement and rehabilitation projects. The program currently schedules one right of way project and one park project annually to balance the fund’s cash flow.

In terms of process, each year Parks and Public Works staff prioritize projects and funding for a 5-year period. The draft plan is reviewed by the Parks, Recreation and Natural Resources Commission. Upon Commission approval, the landscaping projects are then scheduled into the Capital Improvements Plan for final review and approval by City Council.

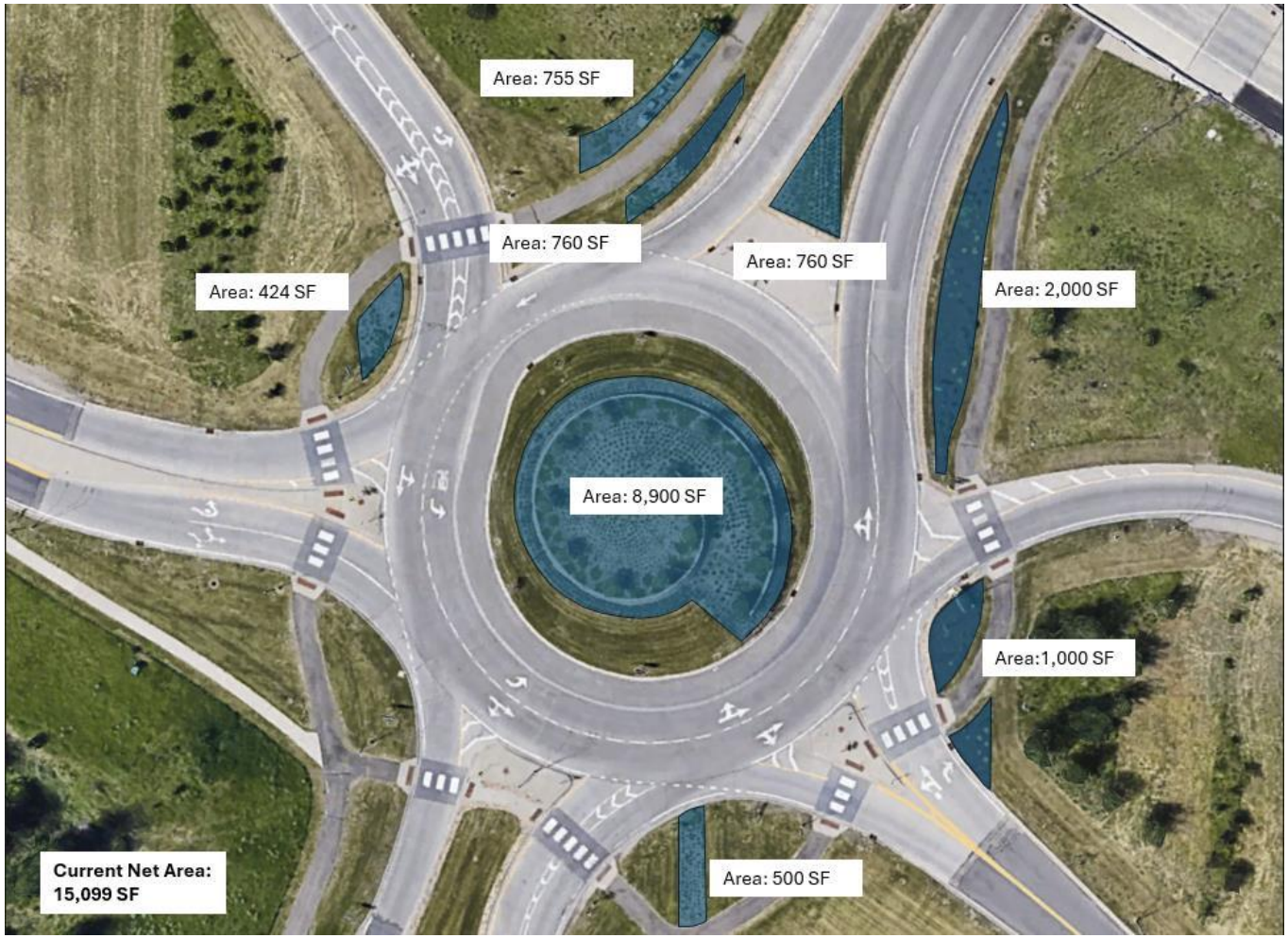
Staff Recommendation
Receive information regarding the future of public landscaping practices and provide guidance to staff.

City Landscaping

Jamaica Avenue

Roundabout Challenges:

1. Over ½ acre of landscaping
2. Dangerous Work Zone
3. Plant Volume
4. Woodchip Volume
5. Soil Salinity
6. Soil Compaction
7. Plant Freeze
8. Heavy Labor/Few Eyes



City Landscaping

Jamaica Avenue

<u>Roundabout Solution:</u>

1. Reduce Plant Area to 1/10 acre
2. More labor time per bed
3. Increase plant volume/bed
4. Maintain woodchip cover
5. Pre-treat weeds
6. Treat soil salinity
7. Increase plant replacement
8. Reduced labor, increased visual appeal with quality beds



City Landscaping

Jamaica Avenue/70th St
Modified Approach

<u>Remaining Challenges:</u>

1. Highly dangerous work zone
2. Tight planting spaces
3. Low survival rate
4. Time better invested into key sitelines
5. Clean look



City Landscaping

Jamaica Avenue/70th St
Modified Approach

<u>Proposed Solution:</u>

1. Reduce safety risk
2. Increase survival rate
3. Improved color
4. Clean look



City Landscaping

- Good Use/Balance of Hardscape and Softscape





City Council Action Request

9.A.

Meeting Date	1/10/2026
Department	Administration
Agenda Category	Action Item
Title	Public Works & Parks Building Relocation Project
Staff Recommendation	Receive Public the Works & Parks Building Relocation Project.
Budget Implication	N/A
Attachments	1. PW-Parks Building Relocation Project

To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Ryan Burfeind, P.E., Public Works Director
Gavin Hochstetler, Management Analyst

Date: December 29, 2025

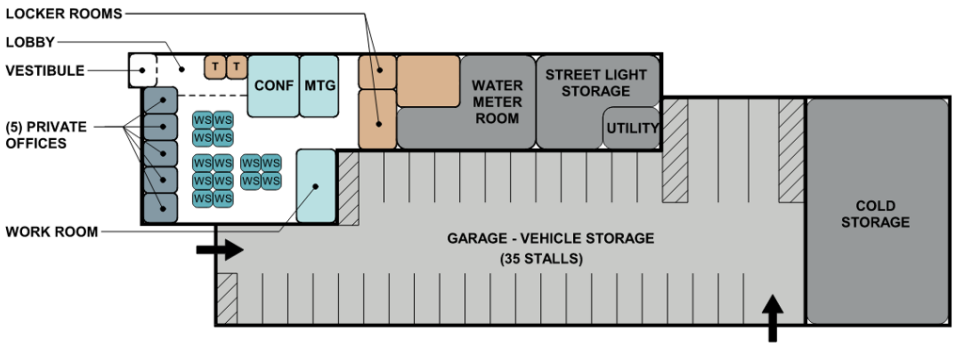
Re: Public Works & Parks Departments Building Relocation Project

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Background

For the past several years, Staff and Council have been discussing the space needs at the Public Works & Parks Maintenance Building. The first step in this process was development of a space needs study for Public Works and Parks Maintenance. A draft of this study was completed in 2019, which provided 15-year and 30-year build options on a new site, with costs of $30 million and $50 million respectively. Due to the high costs, an additional option was developed to do a major overhaul of the existing facility. This renovation project would have met the space needs for 15 years, at a total cost of $15 million.

In July of 2022, a workshop was held to provide greater details on a potential Utilities & Engineering Division Building (UEB) which could be constructed in conjunction with the Low Zone Water Treatment plant. This allowed the utilities division to be near the plant and free up space to accommodate growth in the Streets, Parks, and Fleet Divisions at the existing site. The Engineering Division was included, as it freed up space at City Hall and provided additional room as the City continues to grow.



The UEB has been built to accommodate the needs of the City at full build-out for both the utilities and engineering divisions. Since completion, the building houses all 12 Utility Division FTEs, 7 Engineering FTEs, and 3 seasonal employees. As the facility was sized for full build-out of the City, off-season storage from Parks, Streets, and Facilities is being located there to further address the space needs at the existing facility. This has bought additional time until the rest of Public Works & Parks need to move into a new facility. The UEB was designed to fit with this future move by strategically placing the entrance, lobby and locker rooms. This project was a positive step forward in the path to relocating the Public Works & Parks Departments. Additionally, in 2025 the City Council authorized modifications to the existing Public Works wash bay, allowing for an expansion of the shop as a fifth mechanic was brought on board. This project was critical to allow the shop to continue to serve the growing City until the future move takes place.

With the construction of the UEB, staff had estimated the existing facility could continue to house the remaining Public Works and Parks Divisions for seven years while accounting for ongoing growth. While this timeframe puts construction of the building outside of the five-year CIP, it is important to continue discussions and planning for this future facility. In addition to the limited remaining growth, other important considerations are large maintenance costs at the existing facility, along with the potential for redevelopment. Below is a summary of larger maintenance items that would need to be completed if the space were to be occupied longer than seven years.

Item	**Estimated Cost**
Pavement Replacement	$1,210,000
Roof Replacement	$800,000
Garage Door Replacement	$85,000
Vinyl Tile Replacement	$60,000
Total Cost	**$2,155,000**

Also, the planned extension of 100th Street in 2027 and 2028 will open up the Langdon Area for redevelopment. The existing Public Works and Parks facility sits at the cornerstone of this potential development area. With approximately 12 acres of land, this carries an estimated value of $4,800,000 for the planned mixed-use zoning. If the existing facility were to remain, it would be a major challenge for redevelopment of the rest of the Langdon Area.

A final consideration is the space available in the existing heavy truck bay which has 14 parking spaces for plow trucks. Currently there are 14 plow routes, so there is no room for additional plow trucks in our current configuration. Based on past growth trends, the City has added a plow route approximately every five years in order to maintain our level of service. Based on this, a 15th plow route should be planned for in 2029. This truck would be forced to park down the drive aisle of the heavy bay. While this would be necessary until a new facility is constructed, it is not desirable from an efficiency or safety perspective. Additionally, there is no space for a 16th plow truck at the existing facility.

Discussion

As part of the City's long-term operational and strategic planning process, staff have re-evaluated the facility needs of the Public Works and Parks Departments. This included a review of the recent City of Rosemount Public Works, Parks, and Public Safety Facility construction project. As a similar sized city on full build-out, with similar development potential, it provided additional insight for our planning process. Two potential updated paths for addressing the current space deficiencies and planning for growth have been outlined. These include the 20-year and 40-year plans that were included in the original 2019 Space Needs Study, accounting for the space that was built at the UEB. The change in the number of years these options will accommodate growth is two-fold. The first is the fact the UEB was constructed for full build-out of the city. As such, there is additional space available compared to the original 15-year option in the 2019. Also, re-analysis of the 30-year option from the 2019 study shows this plan to serve the city until full build-out, which is greater than 30 years. Based on UEB bid costs from 2024, the estimated construction of the facility was $329/square foot. Adding 5% to this number provides a reasonable current construction cost. This square footage value is to provide a reasonable planning level benchmark for evaluating financial impacts of both options.

Plan 1: New Facility – 40-Year Build

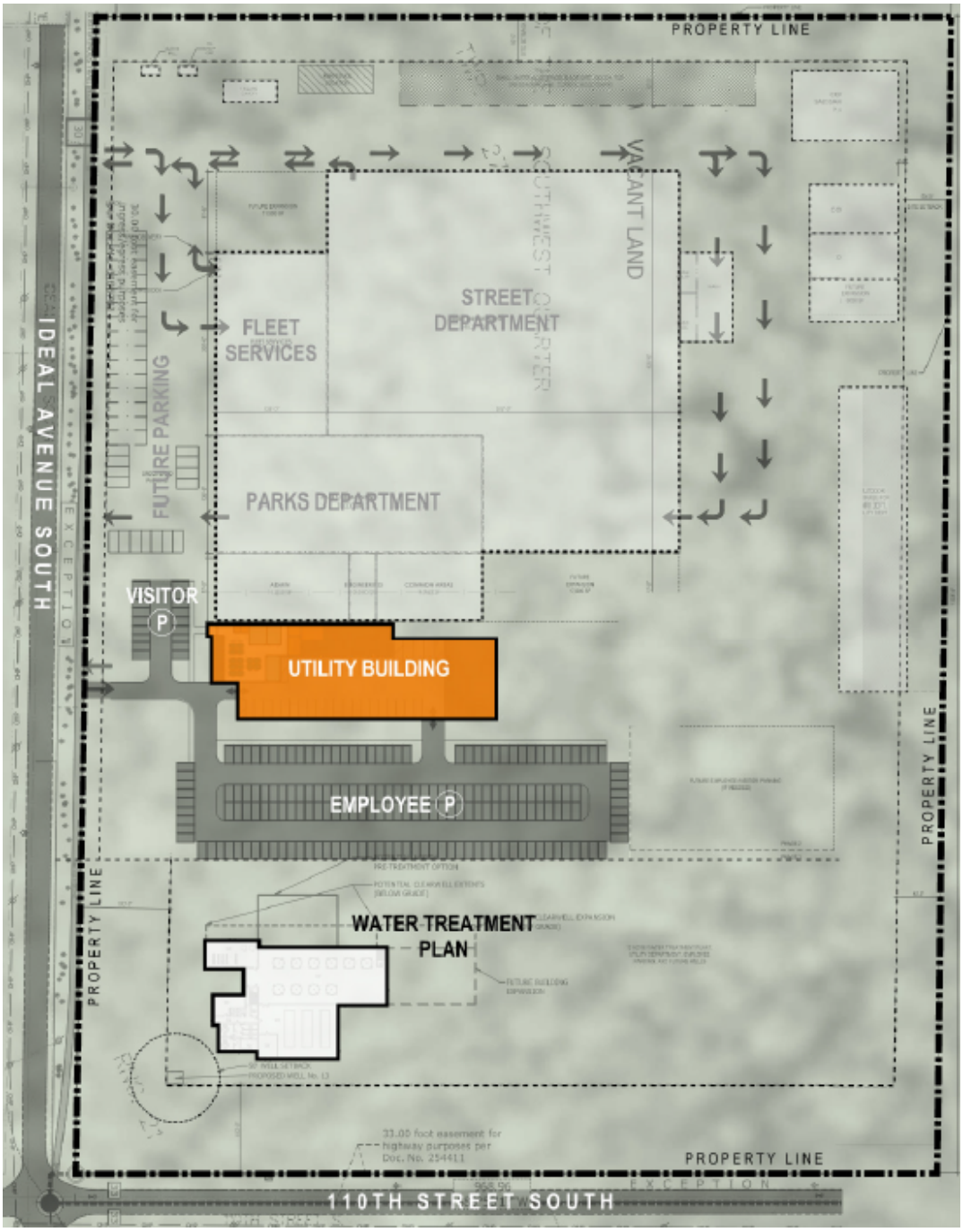
Plan 1 evaluates the need to accommodate the City's projected needs over the next 40 years, which is considered a "full build-out" option. This option focuses on the existing UEB that was completed in January of 2025. Leveraging the recent investment by designing and constructing a major expansion that will accommodate projected staffing and equipment needs for the next four decades. By expanding onto the UEB, a substantial amount of heated garage space is now able to be reduced from the original building plan from 2019. This reduction in projected space needs results in a more cost-effective approach while still meeting projected long-term needs.

The UEB has been designed to fit with the future full Public Works/Parks Building by strategically placing the entrance, lobby and locker rooms. The proximity of the building to the water treatment plant considered the current and future space needs of the plant as well. Located below is an estimated cost breakdown of the 40-year building plan.

Plan 1: New Facility – 40-Year Build			
Finished Office Space	14,093 ft^2		$4,632,228
Unfinished Space/Garage	148,043 ft^2		$48,660,253
Covered/Cold Storage	15,000 ft^2		$4,930,350
Total Square Footage	177,136 ft^2	$329/$ft^2$	$58,277,744
Total cost using cost breakdown from UEB analysis (2024) + 5%			**$61,191,631**

Below is a conceptualized figure of the future Public Works & Parks Facility. This is strictly a test fit plan, to ensure the necessary full build-out square footage will fit on the acreage owned by the City. The actual layout of the building would be determined in the future to ensure the most efficient use of space possible.

2: New Plan



Facility – 20-Year Build

Plan 2 has a strategic approach in evaluating a potential 20-year plan for the new Public Works building. By designing the facility with long term growth in mind, the City can minimize initial construction costs while still ensuring that future operational needs can be met. This phased strategy allows for a targeted, incremental expansion as service demands increase, providing flexibility and less financial impacts. The building expansion would be planned and designed in a way to allow for cost effective future expansion as city growth and staffing needs require additional space. A cost breakdown of the proposed expansion is shown below.

Plan 2: New Facility – 20-Year Build			
Finished Office Space	11,245 ft^2		$3,696,119
Unfinished Space/Garage	60,007 ft^2		$19,723,700
Covered/Cold Storage	15,000 ft^2		$4,930,350
Total Square Footage	86,252 ft^2	$329/$ft^2$	$28,376,908
Total cost using cost breakdown from UEB analysis (2024) + 5%			**$29,795,753**

Recommendation

Receive the information on the Public Works & Parks Departments Building Relocation Project.

City Council Action Request

10.A.

Meeting Date	1/10/2026
Department	Communications
Agenda Category	Presentation
Title	2026 Communications Priorities
Staff Recommendation	Receive the 2026 Communications Priorities.
Budget Implication	N/A

Attachments

1.	2026 Communications Priorities Memo
2.	Social Media Analytics 2025_Strategic Plan Packet
3.	SWCTC Annual Analytics for the City of Cottage Grove 2021 - 2025

TO: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

FROM: Phil Jents, Communications Manager

DATE: December 29, 2025

RE: 2026 Communications Priorities

As the new year approaches, the City of Cottage Grove would like to outline its communications priorities for 2026.

The City will build on successes and momentum from 2025. The City's communications staff have bolstered relationships across the organization and are well-established to advance key initiatives, enhance systems and processes, and take a more thoughtful and intentional approach to the City's overall communications strategies. Some, though not all, key projects and initiatives that City communications staff worked diligently on in 2025 include:

- 2025 Food Truck Festival – profitable; massive attendance; community success; significant staff lift
- City enterprise website redesign with Civic Plus – launched in October of 2025
- Crisis Communications Plan – in progress but likely substantially complete by Q1 of 2026. Would have been completed in 2025 but was delayed for several months in 2025 due to unforeseen circumstances outside of the City's control.
- Developed an extensive library of printed informational collateral, ranging from large-scale environmental graphics to localized direct-mail pieces. This includes the annual CVB Visitor Guide, Water Quality Report, Parks and Recreation brochure, Economic Development trade show booth, and more.
- Successfully implemented a new focus on in-house production of strategic video content.
- Successfully implemented and conducted the National Community Survey.
- Successfully launched and continually producing "The Grovecast" – the City of Cottage Grove's podcast.
- Thorough review of City social media metrics that has informed and changed the City's approach to content, while also informing the City's overall strategic direction moving forward.
- Continued to implement the CVB strategic plan including redesign of the CVB website, launched the "Bring a Friend" and "Patio Week" pilots, and successfully awarded a grant from the Explore MN Tourism Grant program.

Moving forward, communications efforts will build on 2025 successes and challenges with a renewed focus on enhancing engagement, increasing transparency, and making sure the communication strategy aligns with the City's overall strategic plan.

To achieve these goals, three key focus areas are proposed:

1. Continue the City's strategic video content, both in-house and with TrueLens Community Media
2. Meeting residents where they are – including thoughtful and thorough review of social media metrics
3. Evaluating impact of social media platforms

Strategic Video Content

In 2026, video will continue to be one of the most effective ways to connect with our residents. As consumption of video content on social media and digital platforms continues to rise, the City must adapt to this shift by producing high-quality, informative videos that highlight key city services, issues, and initiatives. These videos will help demystify city operations, enhance transparency, and foster a deeper sense of community involvement.

Beginning in late 2024, and carrying forward into all of 2025, Communications staff have significantly increased its focus on video content. Embracing opportunities to educate the public on things such as fire operations, fire safety, and department highlight videos, these videos convey useful and important information and are presented in engaging and interesting ways. We have seen these videos outperform more "traditional" social media posts (standard copy with an image or graphic) by significant margins.

While videos produced in-house or with the help of TrueLens community media tend to take more time and effort, the payoff of presenting important information with a significant reach is something staff will continue to balance and emphasize in 2026.

Meeting Residents Where They Are

A successful communication strategy requires flexibility, meeting residents on the platforms and through the channels that they use most.

The City has been regularly monitoring, analyzing, and interpreting social media metrics to determine best approaches for content, as well as making potential recommendations on the use of platforms based on where our residents are. Additionally, the social media landscape is constantly evolving and changing – new platforms emerge, popularity of existing or legacy platforms ebbs and flows, etc.

In 2025, amidst a significant uptick in user accounts on BlueSky, the City launched a test balloon to determine if our residents were utilizing this platform, and if so, would they engage in City content there. At the same time, staff observed a considerably low number of views and engagement across the City's X (Twitter) accounts, leading staff to wonder if the broader nationwide exodus off of the X platform and rise in the popularity of BlueSky would result in interest in City content posted to BlueSky.

In reviewing the numbers, staff have determined that BlueSky is likely not, at this time, a viable platform for City communications. Additionally, and for similar reasons, staff recommends that the City halt its use of X (Twitter) with one key exception: Public Safety. X (Twitter) remains a potentially viable platform for emergency / crisis communications allowing multiple posts and multi-thread posts (with timestamps) to communicate critical information before, during, and after a crisis.

To summarize: staff recommend halting the use of BlueSky at this time, halting the use of X (Twitter) across City accounts, and reserving the Public Safety X (Twitter) account specifically for emergency / crisis communications. This determination is not made lightly given the importance of utilizing a broad set of communications platforms, but also given the data, it is clear that our residents are not currently seeking out City information on the BlueSky and X (Twitter) platforms.

By continuing to monitor social media trends, platform usage, and our own metrics, City staff remain committed to ensuring that our communications resources are used wisely and with great effect.

Evaluating Impact on Social Media

In addition to monitoring platforms, staff will continue to evaluate the City's impact on social media across platforms, content, timing of posts, etc. To ensure that the communications efforts are reaching the right audience, a concerted effort will be made to evaluate and measure the impact of social media activities. This will include:

- Platform Performance Review: Analyzing engagement metrics across platforms to determine what types of content resonate best with audiences. This data will allow the city to adjust its messaging and targeting strategies to ensure effectiveness.
- Resident Feedback: Gathering insights from residents through surveys, polls, and comment sections to gauge the impact of communications and identify areas for improvement.
- Targeted Content Strategy: Based on these evaluations, the City can adjust its content strategy to ensure that the organization is delivering the right information to the right audience in the right places.

The goal is not only to inform our residents, but also to engage in interesting ways, demystifying City operations while empowering residents to take action or provide feedback on City matters.

Discover Cottage Grove (Convention and Visitors Bureau)

The CVB will complete a full website redesign in early 2026, a result from board input and the strategic plan. An additional goal in 2026 will be to host a tourism summit in an effort to build a shared vision for tourism in Cottage Grove. Moving forward beyond that summit, the goal would be to gather local businesses and tourism partners to continue that collaboration on a regular basis (quarterly, annually, or whatever frequency makes the most sense).

With the start of a new Economic Development Manager, the CVB is also eager to see how its staff can support the development of additional lodging in Cottage Grove, partner with local businesses, and bring a higher level of collaboration across the community to market Cottage Grove for events, sports, business travel, etc.

The DCG logo is also something on the radar of staff as having potential for a refresh. While this concept is in its infancy, it is something that staff will likely engage City leadership and the board to gauge direction and interest in a logo redesign.

Other Communications Strategies

Communications often must focus on a variety of content outlets, emphasizing key city messages across multiple platforms and forums. The Cottage Grove Reports newsletter will continue to be a priority for the city and will undergo periodic review to ensure its format, content, and efficacy is meeting the city's needs.

Cottage Grove Connect has been a resource for the organization to deliver information directly to email subscribers and communications will continue to utilize this platform as an additional means to deliver information alongside other city channels.

Communications staff have also come up with a long list of ideas for 2026 ranging from new video ideas / concepts, engaging in a social media influencer pilot program in collaboration with Parks and Recreation, and others.

Conclusion

In 2026, the City's communications efforts will be rooted in the principles of accuracy, engagement, transparency, and flexibility while aligning with the City's overall strategic plan. Staff will also aim to humanize government, which was an intentional focus in 2025 that proved highly successful. By utilizing video content, honing in the City's presence across platforms, and rigorously evaluating the impact of that outreach, the City of Cottage Grove can strengthen its connection with residents. This will ensure that messages are both heard and acted upon, fostering a more engaged, informed, and cohesive community.

Thank you for your continued support as the City works to enhance communication throughout the community.

Attachment

Social Media Analytics 2025.
SWCTC Analytics for the City of Cottage Grove 2021-2025.

	Platform	Followers (Start)	Followers (End)	Growth	Posts	Impressions	Likes	Comments	Shares	Engagement	Reach
January	Facebook - City	12,912	12,915	3	33	84,357	416	35	71	5,393	71,692
	Facebook - PS	18,107	18,176	69	31	401,550	6,804	523	335	61,046	348,048
	Facebook - DCG	4,166	4,166	0	17	6,331	26	1	5	158	6532
	Insta - DCG	912	910	-2	16	2,399		0	13	63	2,321
	Twitter - City	2,401	2,393	-8	9	1,145		0	2	22	
	Twitter- PS	531	533	2	9	825		0	2	26	
	Twitter - DCG	82	79	-3	0	0		0	0	0	
February	Facebook - City	12,915	12,940	25	33	122,456	453	80	68	8,719	103,398
	Facebook - PS	18,176	18,143	-33	26	284,483	2,393	371	221	44,794	235,457
	Facebook - DCG	4,166	4,164	-2	17	6,459	38	2	2	318	6,203
	Insta - DCG	910	908	-2	13	2,292	43	0	9	54	2,189
	Twitter - City	2,393	2,392	-1	7	843	5	0	1	24	
	Twitter- PS	533	539	6	4	376	2	0	0	12	
	Twitter - DCG	79	81	2	4	83	3	0	0	5	
March	Facebook - City	12,940	13,014	74	44	163,662	801	85	67	10,168	142,192
	Facebook - PS	18,143	18,060	-83	33	382,881	4,332	300	1167	50,334	344,380
	Facebook - DCG	4,164	4,182	18	19	9,698	45	2	9	572	17,804
	Insta - DCG	908	959	51	4	746	15	0	5	20	719
	Twitter - City	2,392	2,392	0	7	888	5	0	1	29	
	Twitter- PS	539	551	12	15	1449	12	0	5	94	
	Twitter - DCG	81	83	2	1	128	1	0	1	2	
April	Facebook - City	13,014	13,155	141	27	172,646	1235	123	251	15,810	178,828
	Facebook - PS	18,060	18,099	39	21	133,317	1,779	103	89	18,606	135,112
	Facebook - DCG	4,182	4,195	13	12	5,319	50	5	4	399	28,508
	Insta - DCG	959	967	8	4	698	19	1	10	33	1,057
	Twitter - City	2,392	2,399	7	6	809	8	0	3	31	
	Twitter- PS	551	554	3	3	150	1	0	0	20	
	Twitter - DCG	83	83	0	1	42	1	0	1	2	
May	Facebook - City	13,155	13,277	122	38	169,994	978	161	52	15,144	168,167
	Facebook - PS	18,099	18,197	98	39	252,049	1,941	140	187	20,616	217,976
	Facebook - DCG	4,195	4,203	8	20	11,105	41	2	8	368	11,395
	Insta - DCG	967	984	17	11		24	5	18	46	1,591
	Twitter - City	2,399	2,397	-2	10	1,204	13	1	0	43	
	Twitter- PS	554	566	12	27	2,845	16	0	6	188	
	Twitter - DCG	83	82	-1	0	0	0	0	0	0	
June	Facebook - City	13,277	13,384	107	39	128,358	481	142	55	9,024	110,479
	Facebook - PS	18,197	18,456	259	25	360,667	228	176	213	43,689	325,834
	Facebook - DCG	4,203	4,297	94	32	94,829	273	26	93	5,794	79,325
	Insta - DCG	984	993	9	34	1,181	86	1	33	135	6,169
	Twitter - City	2,397	2,408	11	13	2,321	9	0	2	190	
	Twitter- PS	566	581	15	9	3,557	7	0	1	181	
	Twitter - DCG	82	81	-1	1	8	0	0	0	0	
July	Facebook - City	13,384	13,503	119	42	175,607	670	190	75	11,579	142,231
	Facebook - PS	18,456	18,657	201	35	413,282	3,563	553	301	55,547	336,182
	Facebook - DCG	4,297	4,407	110	32	67,639	294	27	37	5,885	77,902
	Insta - DCG	993	1,012	19	34	629	86	3	14	111	4,667
	Twitter - City	2,408	2,411	3	8	1,111	8	0	1	50	
	Twitter- PS	581	582	1	15	1,221	6	0	2	58	
	Twitter - DCG	81	83	2	0	0	0	0	0	0	
Aug	Facebook - City	13,503	13,605	102	30	120,450	443	83	39	6,707	106,300
	Facebook - PS	18,657	19,024	367	26	582,531	5,991	506	157	69,064	534,640
	Facebook - DCG	4,407	4,494	87	22	251,128	589	44	124	17,444	143,639
	Insta - DCG	1,012	1,039	27	19	403	50	0	17	69	3,276
	Twitter - City	2,411	2,418	7	0	0	0	0	0	0	
	Twitter- PS	582	595	13	3	1,224	3	1	0	59	
	Twitter - DCG	83	83	0	0	0	0	0	0	0	
Sept	Facebook - City	13,605	13,735	130	34	231,063	817	143	91	15,195	177,304
	Facebook - PS	19,024	19,194	170	32	589,568	6,218	708	294	65,103	496,634
	Facebook - DCG	4,494	4,636	142	23	260,677	873	106	231	20,501	282,071
	Insta - DCG	1,039	1,060	21	17	172	66	0	18	92	3,244

Definitions	
Impressions	The number of times content you published during the time frame was displayed on a person's screen. Content includes statuses, photos, links, videos, and more
Engagement	The number of likes, reactions, comments, clicks, and shares received by posts published during the date range. Does not include likes, reactions and clicks received by reels
Post Quote Tweet	Twitters version of comments
Reach	The number of people who had any content from your Pages or about your Pages enter their screen.

	Twitter - City	2,418	2,412	-6	1	309	0	0	0	7	
	Twitter- PS	595	598	3	1	75	0	0	0	6	
	Twitter - DCG	83	84	1	0	0	0	0	0	0	
Oct	Facebook - City	13,735	13,816	81	29	106,115	560	200	72	7,186	109,525
	Facebook - PS	19,194	19,529	335	35	704,956	7,003	1026	271	75,028	688,826
	Facebook - DCG	4,636	4,697	61	25	13,480	46	4	11	558	34,786
	Insta - DCG	1,060	1,076	16	9	0	27	0	9	40	1,854
	Twitter - City	2,412	2,406	-6	1	85	0	0	0	2	
	Twitter- PS	598	605	3	2	323	1	0	0	36	
	Twitter - DCG	84	82	-2	0	0	0	0	0	0	
Nov	Facebook - City	13,816	13,948	132	33	39,299	837	139	119	14,960	178,778
	Facebook - PS	19,529	19,799	270	35	140,160	4,292	532	395	53,432	387,728
	Facebook - DCG	4,697	4,755	58	21	0	208	12	65	2,589	45,395
	Insta - DCG	1,076	1,082	6	18	0	92	0	26	135	3,088
	Twitter - City	2,406	2,402	-4	1	202	0	0	1	6	
	Twitter- PS	605	608	3	11	1,781	12	2	1	100	
	Twitter - DCG	82	82	0	0	0	0	0	0	0	

SWCTC Analytics for the City of Cottage Grove 2021 – 2025

Televised/Streamed Cottage Grove City Meetings

2021	47
2022	60
2023	43
2024	51
2025	**50**

Videos Created for the City of Cottage Grove

2021	75
2022	92
2023	87
2024	81
2025	**74**

Video Productions by Hours of Work

CITY	2021	2022	2023	2024	2025	2025%
Cottage Grove	1,405	1,490	1,254	1566	**1,298**	**41%**
Woodbury	2,430	1,958	1,915	1773	**1,846**	**59%**
TOTAL	**3,835**	**3,448**	**3,169**	**3,339**	**3,144**	**------**

City of Cottage Grove YouTube Channel

YEAR	VIEWS	HOURS WATCHED	TOTAL SUBSCRIBERS	SUBSCRIBER INCREASE
2021	141,548	3,600	1,100	+159
2022	145,843	3,573	1250	+150
2023	161,331	3,459	1,457	+207
2024	155,871	3,421	1,696	+239
2025	**107,734**	**2,416**	**1,831**	**+135**

2025 Top Viewed Videos (data compiled from YouTube and Facebook)

TITLE	VIEWS
Food Truck Festival Promo	235,450
Guess That 'Stache! Real or Fake Firefighter Mustaches	28,048
Vangz Kitchen Ribbon Cutting	15,283
How Cottage Grove Got Their Street Names	14,810
Backyard Ice Rink	11,618

2025 The Grovecast

Episodes Recorded	**8**
Total Downloads	**712**
Followers	**10**
Top Episode	**Episode #1 Introducing: The Grovecast**

City Council Action Request

11.A.

Meeting Date 1/10/2026

Department Administration

Agenda Category Action Item

Title Fire Safety Standard of Cover Study

Staff Recommendation

Budget Implication

Attachments

1.	Fire Strategic Planning Memo 01.02.26 FINAL
2.	SOC DRAFT December 31 2025
3.	Cottage Grove MN Draft Data Report 2025-08 v2
4.	Cottage Grove MN Draft Risk Assessment Report to Client 9-15-2025
5.	Cottage Grove, MN Draft GIS Report to Client 10-20-25

To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Peter J Koerner, Director of Public Safety
Jon Pritchard, Fire Chief

Date: January 2, 2026

Subject: **FIRE DEPARTMENT STANDARDS OF COVER STUDY – STRATEGIC PLAN**

INTRODUCTION

As a vibrant community, the City of Cottage Grove has experienced rapid growth and development over the last ten years with a population increase of 22 percent from 2015 through May 2024[1,2] which represents an increase of over 8,000 residents and a total population of 43,690. In the same period, Cottage Grove has seen significant economic development which has provided a 57.6 percent increase in employment from 6,074 jobs in 2015 to 10,992 jobs in 2024[3]. This strategic and successful growth has created an environment where business can thrive, and residents can experience an exceptional quality of life.

The Cottage Grove Fire Department (CGFD) aims to provide the highest level of service to the community. CGFD provides fire suppression, emergency medical services (EMS) transport, specialized rescue/response and community risk reduction. CGFD also provides EMS transport services to the communities of Grey Cloud Island Township, Newport and St. Paul Park. As the community has grown substantially, CGFD has experienced a significant increase in demand for services. Since 2017, the CGFD has experienced a 73 percent increase in calls for service and responded to 5,315 calls for service in 2025.

A strategic goal for the City of Cottage Grove, as established by the City Council, has been to prepare for, respond to and manage growth. With this strategic direction, the city has been proactive in evaluating the needs for the fire department to respond to a rapidly growing community. In 2019, the city conducted a city-wide organizational study which evaluated department structures and leadership needs. This study led to the current leadership and administrative structure of the CGFD, which includes three shift Captains, a Fire Marshal, two Deputy Chiefs, Fire Chief and Public Safety Director. This foresight and

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[1]Met Council, 2016. Retrieved from: Overview-of-2015-Population-Estimathttps://metrocouncil.org/Council-Meetings/Committees/Community-Development-Committee/2016/July-18,-2016/Overview-of-2015-Population-Estimates.aspxes.aspx

[2] Met Council, 2025. Retrieved from: https://stats.metc.state.mn.us/profile/detail.aspx?c=02393644

[3] Ibid.

its implementation have prepared CGFD to respond to a growing organization with adequate leadership capacity to support firefighters, emergency scene management, day-to-day supervision, community risk reduction programs and strategic planning.

As emergency call volumes grew rapidly and within the reality of declining part-time firefighter recruitment and retention, the City Council authorized a staffing study to be completed with consultants from Ethical Leaders in Action. Ethical Leaders in Action facilitated a Staffing Committee comprised of fire department staff and former City Council Member Khambata. The study was completed in 2023 and presented to the City Council in the Summer of 2023. The study established near-term and long-term frontline staffing goals. Two key actions were taken from the study which included converting some part-time positions to full-time positions and the conversion of the part-time pension program. In January 2024, the CGFD converted 20-plus part-time positions to three full-time positions to allow for more consistent day-to-day shift staffing. The study also led to the dissolution of the traditional firefighter "relief association" pension program to a state coordinated PERA program. This allowed for increased funding for full and part-time pension costs and to support the cost of additional full-time firefighters.

In 2024, CGFD created a five-year strategic plan to chart the course for the fire department to continue to provide exceptional services. With a significant increase in call volume along with a transition from a part-time combination department to a mostly full-time department, the need for a formal evaluation of how to continue to provide high-quality emergency services to the community was identified. A key component of CGFD's plan is to respond to the City Council's strategic directive to continue sustainable growth. This Council directive led to the department's strategic objective within its five-year plan to "*utilize metrics and quality data to determine future resource demands for staffing, equipment and facilities."* The key outcome for this strategic objective was to complete a Standards of Cover/Community Risk Assessment (SOC).

The SOC is a comprehensive process that evaluates many factors in how fire and EMS services are delivered. CGFD utilized a request for proposal (RFP) process that resulted in multiple firms offering proposals. The firm Fitch and Associates (Fitch) was selected to complete the SOC. CGFD's SOC process formally started in Spring 2025 and has included a review of department policies, evaluation of response data and times, and meeting with stakeholders; including fire department team members, City leadership, and a community focus group along with members of the City Council. The consulting firm takes many inputs through the SOC process and uses the data to identify findings and recommendations that align with industry standards and best practice.

After a robust process, Fitch published a final Standards of Cover document. The SOC includes over 30 recommendations to sustain and improve service delivery. The SOC includes appendices/supporting documents which include risk assessments, call data analysis and GIS reports. All data and analysis were conducted using data from 2024 or before. Any significant changes in community profiles, developments, growth or call volume after 2024 may have significant impact on recommendations and needs.

This memo will outline the recommendations presented by Fitch. Recommendations will include Public Safety staff recommendations and policy direction needs from the City Council. The recommendations will be categorized around major themes of facilities, apparatus and staffing. Financial considerations are discussed as well.

FACILITIES

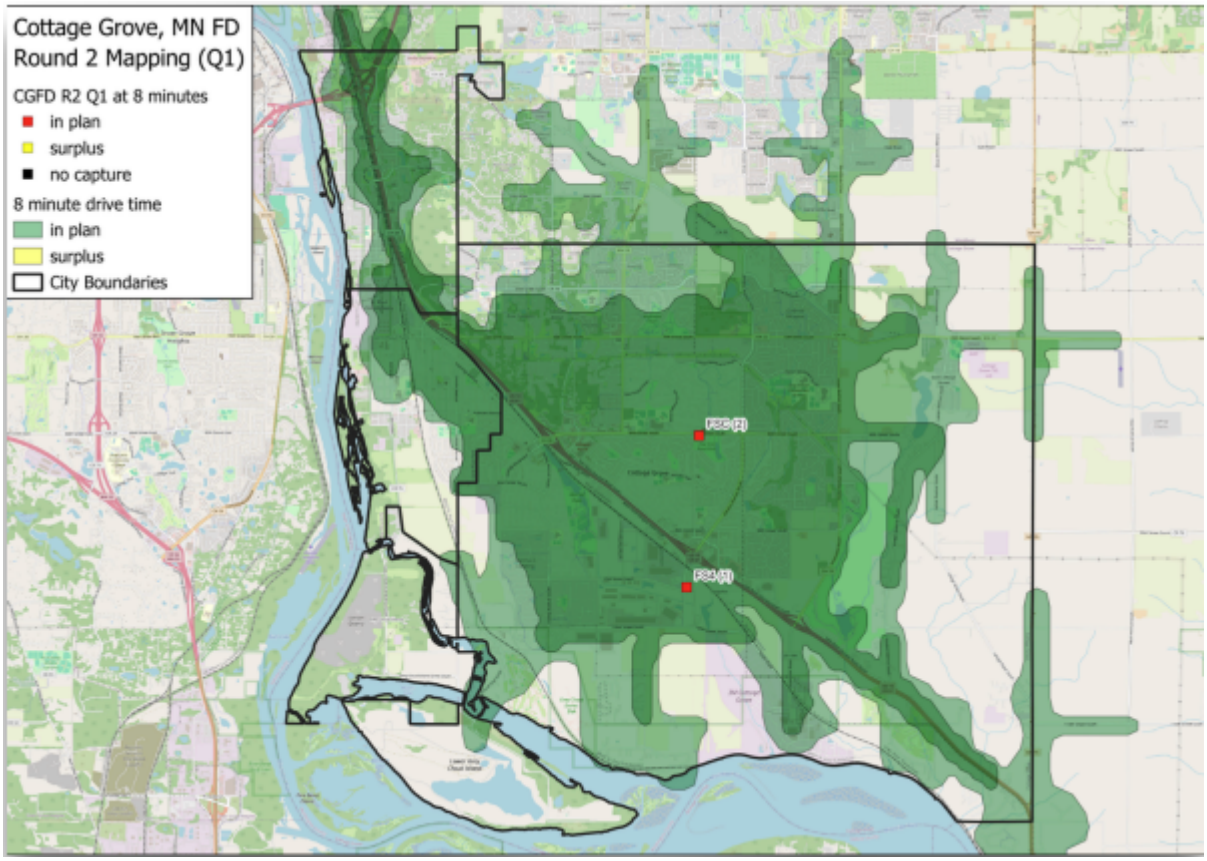
Station 4

CGFD's emergency response operates exclusively from the Central Fire Station (CFS) located at 8641 80th Street South. The consolidation of operations to the CFS was possible as the department had transitioned from a paid on-call ("volunteer") model to a 24/7 staffed station model. This transition started in the early 2010s and all staff now, including part-time firefighters, work shifts to provide a predictable and quick initial response to emergency incidents. In a paid on-call model, the community requires fire stations strategically placed throughout the community to allow firefighters to drive from home/work to a station, don the proper personal protective equipment, and then to respond to a call for service. Extra stations are required to decrease driving time from firefighters' home/work to get fire/EMS apparatus enroute to an incident. As CGFD has transitioned to a 24/7 staffed station model, the need for multiple stations to support a paid on-call model is no longer needed and the utility of current stations must be evaluated.

Station 4, located at 8500 95th Street, is currently used for storage of reserve apparatus and equipment. The station served as a station for call-back personnel until 2023; however, it has not been used for any emergency response since. The station does provide valuable space for reserve apparatus.

Prior to making decisions on Station 4 (such as decommission or demolition), key questions had to be answered. While Station 4 would need considerable upgrades such as sleeping quarters, exhaust management system and significant rehabilitation prior to staffing for emergency response, the location was evaluated for impact on emergency operations if it were to be used in the future.

The SOC evaluated how the addition of a staffed Station 4 along with the CFS would improve response. Through a GIS analysis evaluating the standard eight-minute drive time of historical EMS call distribution, the analysis found that the addition of station 4 as a response station increased the 8-minute drive coverage from 88.1 percent to 92.3 percent of calls. The GIS analysis demonstrates there is significant overlap between Station 4 and CFS.



Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FS4	8	3,708	3,708	88.10%
2	FSC	8	177	3,885	92.30%

*FSC = Central Fire Station

To make Station 4 a viable response station, it would require more than $500,000 in capital investment to refurbish. Considering a 4% response coverage increase, Station 4 does not provide a valuable investment for emergency response. CFS provides excellent coverage for emergency calls in Cottage Grove for current and future demand volume and distribution as clearly demonstrated in the SOC.

Station 4 remains in service and continues to accrue costs such as utilities and maintenance. Station 4 also requires valuable labor hours to care for from both Public Works and Fire Staff. The annual operational costs exceed $30,000. While station 4 does provide space for storage, operating costs exceeding $30,000 per year do not provide sufficient value for the extra storage space.

Therefore, staff recommends the decommission of Station 4 to minimize operating costs and to look for cost-effective opportunities to demolish the facility and return the land to the property tax roll or utilize for other City needs.

Standards of Cover Recommendation
Remove Fire Station 4 from future deployment conversations.

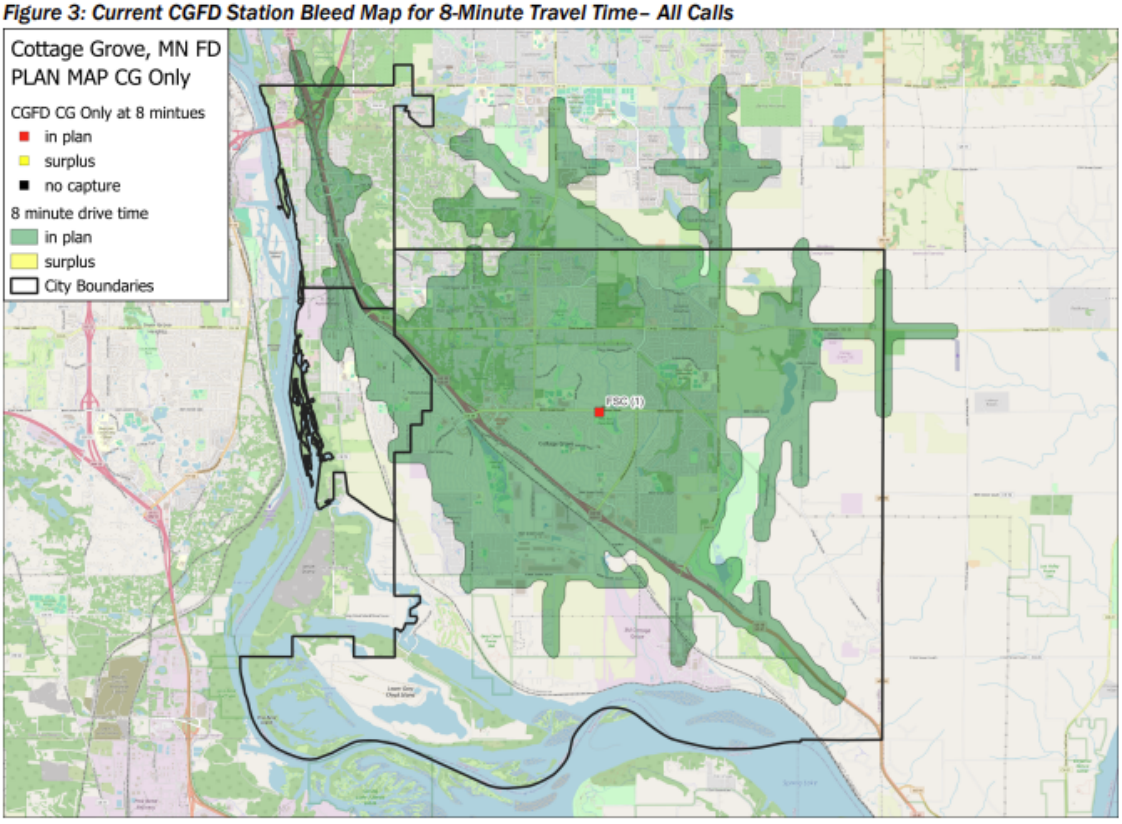
Staff Recommendation
Decommission Fire Station 4 and explore cost-effective opportunities to demolish.

Policy Decision
Provide direction on Fire Station 4.

Central Fire Station

The CFS provides great coverage of the City of Cottage Grove and is well placed within the community to respond to emergency incidents. CFS supports an eight-minute drive time for 92.30 percent of fire and EMS calls in the City of Cottage Grove.

Figure 3: Current CGFD Station Bleed Map for 8-Minute Travel Time– All Calls

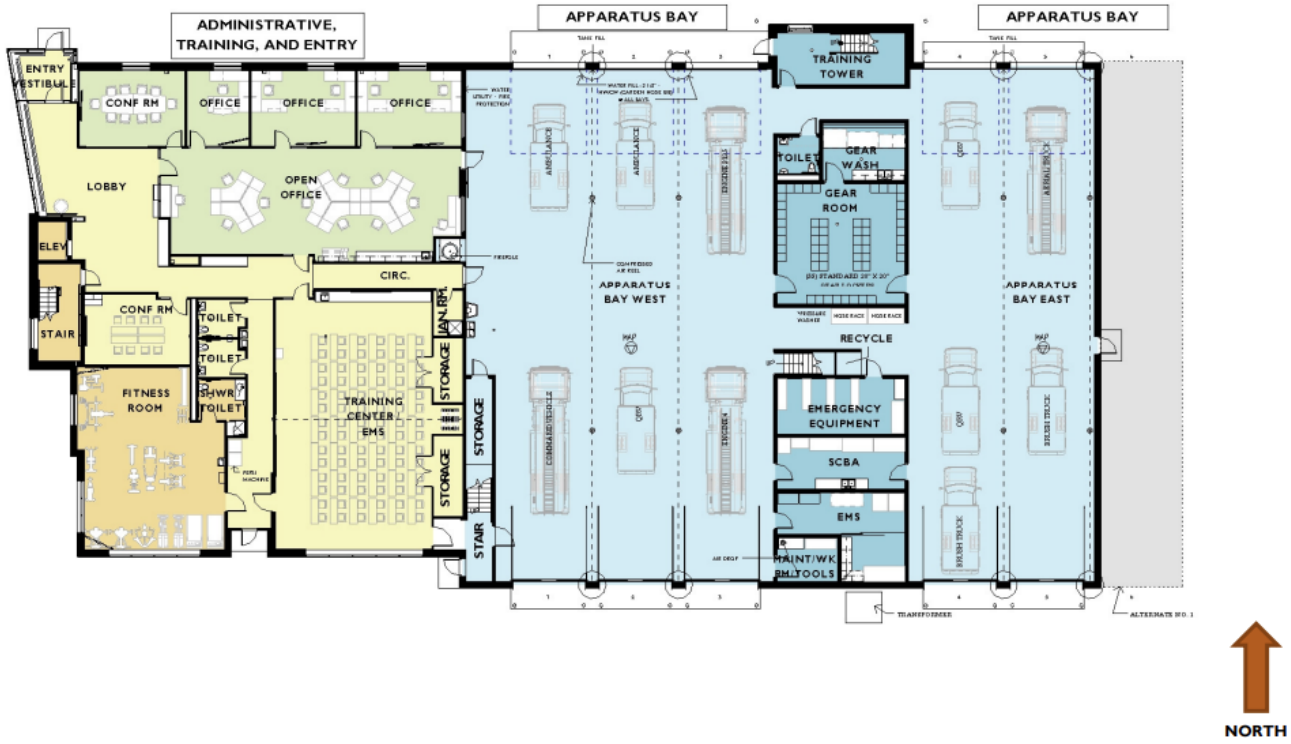


The CFS opened in 2018 and remains an incredible investment in the success of CGFD. Through its first seven years, the station has performed and adapted incredibly well to the needs of the CGFD through its transition to a more career fire department. The station has allowed the implementation of foundationally important programs to improve workplace culture such as sufficient space for fitness and wellness. The station is well-suited for training and has allowed the CGFD to host local, regional and national-level training opportunities on several occasions.

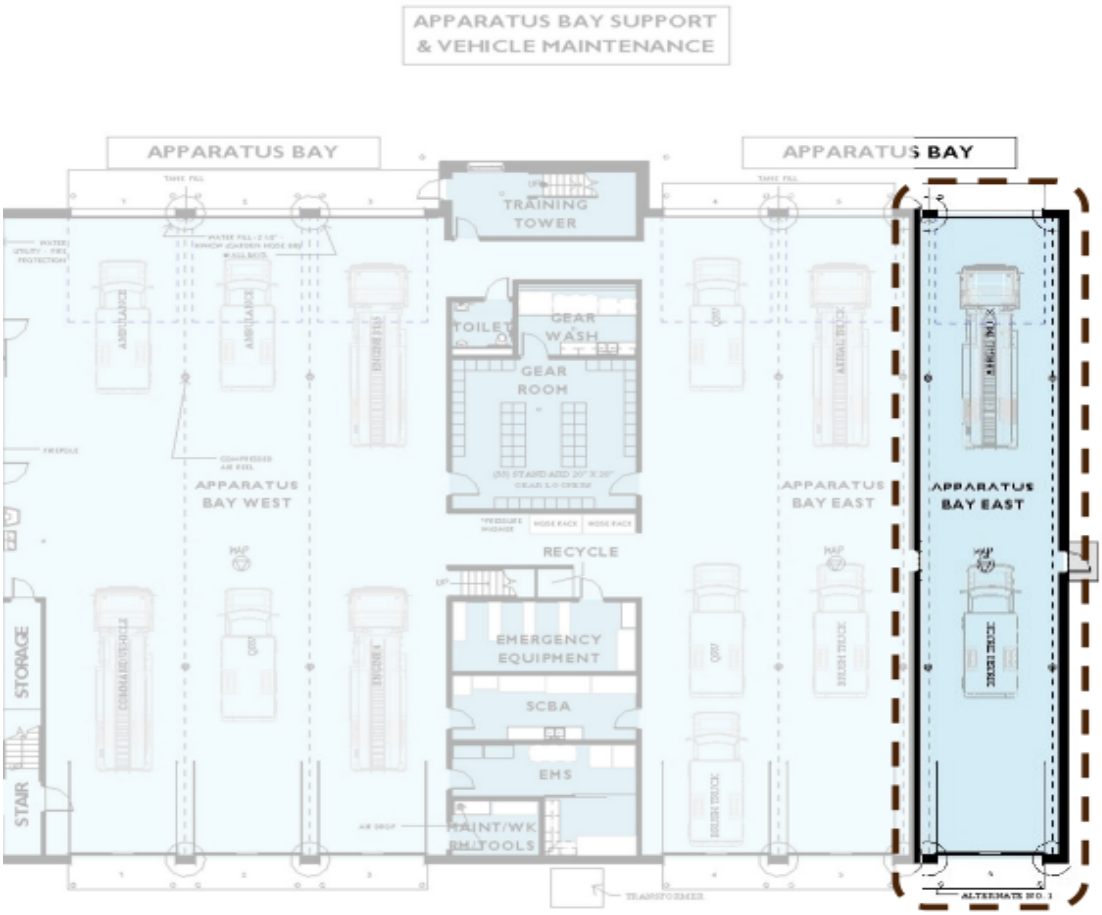
The ability for the CFS to adapt to changes in service delivery will be one of its greatest legacies. The decommission of Station 4 will require additional space at CFS. Fire staff can accommodate the additional storage of items from Station 4 for a short time; however, this is not a long-term solution. To accommodate the additional apparatus that will be moved from Station 4, CFS will require an additional bay. There is sufficient space to allow for this addition at CFS and when the facility was originally constructed, there were strategic decisions made to the site plan to allow for additional apparatus bays if needed.

The figures below demonstrate the current lay-out of CFS and the proposed additional apparatus bay.

Current lay-out



Proposed bay addition

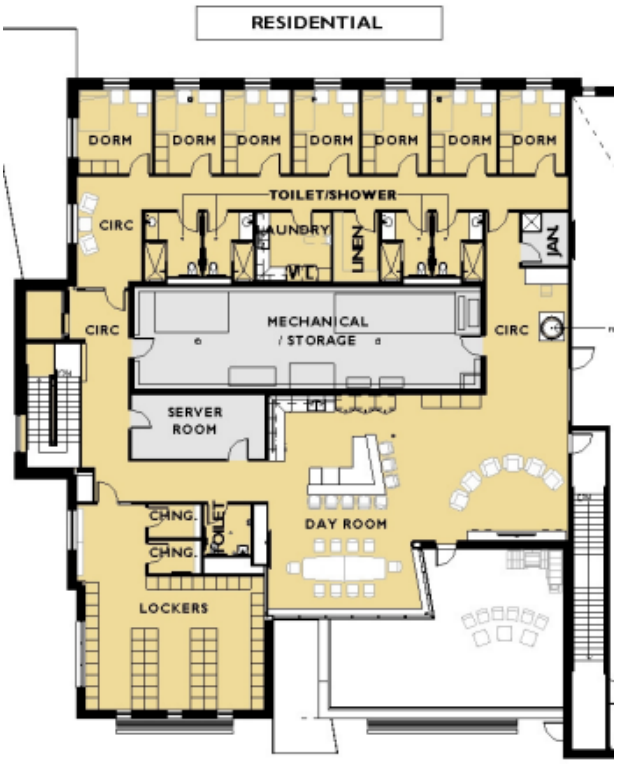


The current water treatment facility construction located behind CFS will preclude the ability to construct an additional bay until at least 2028. Fire Department staff are comfortable with storing current apparatus from Station 4 until the construction of the additional bay.

The additional need at CFS is to accommodate staffing increases that will be recommended by the SOC and fire department staff. The CFS has seven dorm rooms to support seven firefighters working 24-hour shifts. Additional staff increases will require additional dorm rooms. If staffing additions occur prior to completion of the additional dorm rooms, short-term accommodation can be made. Staffing additions should not be delayed to add additional dorm space.

The figures below demonstrate the current lay-out of CFS living/sleeping (“residential”) areas and the proposed new dorms rooms.

CFS Current residential area



CFS Proposed dorm rooms



The additional dorm rooms would allow for a total of ten, 24-hour shift firefighters. Once 10 firefighters are staffed at CFS, the station will reach its capacity. Further modifications to accommodate more staff would require major capital investment and expansion.

The additional dorm rooms can be constructed separately from the CFS bay addition and do not have limitations due to the construction of the water treatment facility.

Conceptual planning was undertaken in April 2024 and estimated costs based on June 2025 pricing proposed an estimated project cost of $1,350,000. The dorm room addition estimated cost is approximately $200,000 while the remaining cost represents an additional apparatus bay.

Standards of Cover Observation
The primary staffed station can cover 93.5 percent of all calls within Cottage Grove within an 8-minute travel time.

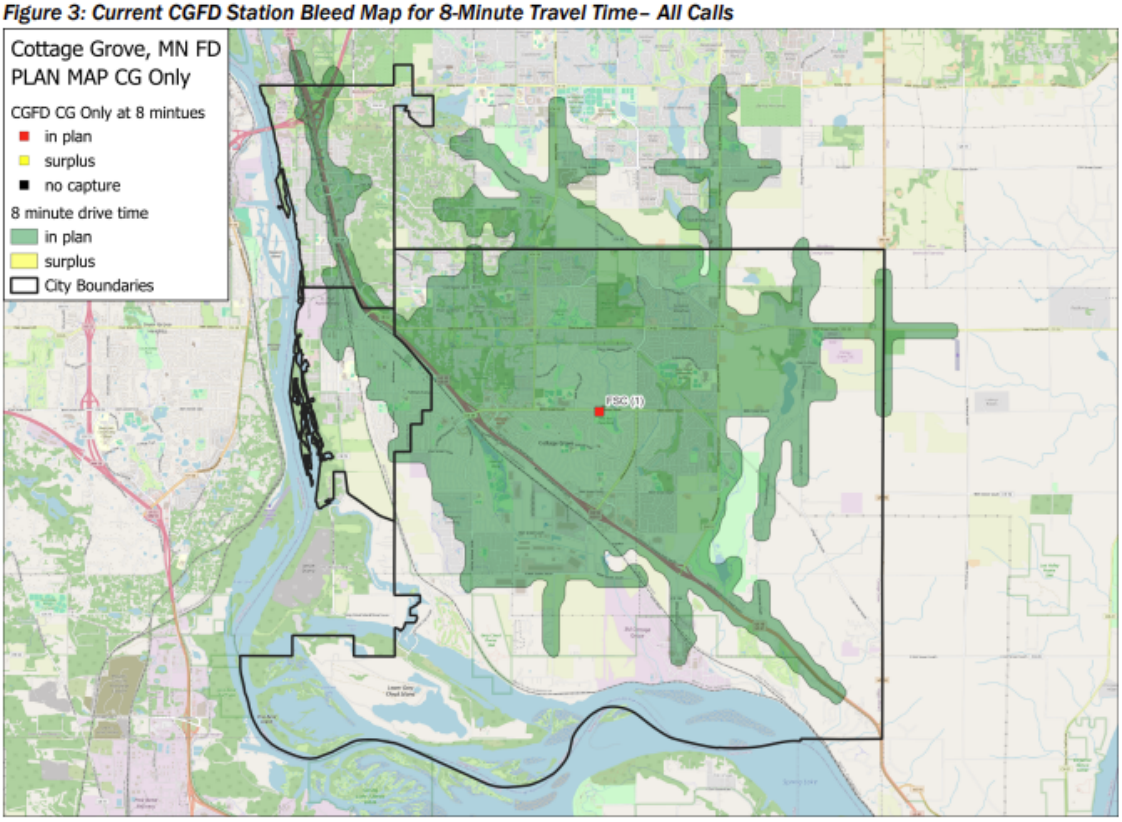
Staff Recommendation
Continue all emergency response operations from CFS. Plan for dorm room additions to correspond to staffing increases. Plan for apparatus bay addition to start by 2029.

Policy Decision
Provide direction on improvements and additions to CFS.

Additional Fire Station

The city continues to grow rapidly as does the distribution of developments throughout the geography of the city. The greatest growth potential that will affect department deployment is within the southwest corner of the city, which includes Grey Cloud Island. Increasing development in the farther southwestern portions of the city provides challenges for a consistent eight-minute drive time goal.

Figure 3: Current CGFD Station Bleed Map for 8-Minute Travel Time– All Calls



While current development concentrations are within this eight-minute drive-time goal, expanding developments may challenge this. The future development of the southwest corner of the city will require consistent evaluation for an additional fire station. The SOC did evaluate multiple analysis of theoretical station placement using potential future sites that showed improvement in response in the southwestern parts of the city. The SOC recommends exploring available property in the southwest for a future station.

The balance that must be struck for a future fire station is service need, largely based on volume, for a station in the immediate future vs. the real value of parcels in the area the city would secure and wait on until a station was needed. At this time, staff does not recommend purchasing property for a future a southwestern station, although careful evaluation of planned development and call distribution should occur at least every two years to evaluate the need to secure a site for a future fire station.

Standards of Cover Recommendation
Consider exploring available property in the southwest area of Cottage Grove to plan for future development.

Staff Recommendation
No need to secure a site for a future fire station immediately. Evaluate planned development and call volume distribution at least every two years to assess need to secure a site for a future fire station.

Policy Decision
Provide direction on future southwest fire station location.

Apparatus/Fleet

CGFD has made significant changes to its fleet over the last two years. As CGFD has transitioned to a mostly career fire department, the need for apparatus has decreased. Paid on-call models require more total staff, additional stations and require vehicles at each station available for paid on-call firefighters as response is mostly unpredictable. CGFD is now operating out of one station and the need for apparatus has decreased due to a predictable staffing model. As the number of part-time firefighters has decreased, the need for additional apparatus has decreased as well.

To reflect a mostly career model, CGFD has made a concerted effort to "right-size" its fleet due to the predictable and efficient staffing model a more career department represents. Since 2024, the department has:

- Eliminated one fire engine from the fleet (sold). Future savings of $1,000,000 due to cost avoidance.
- Eliminated a brush engine, UTV and pick-up truck from the fleet (transferred to another city department.) Future savings of $250,000 due to cost avoidance.
- Each piece of apparatus also requires a full complement of equipment such SCBAs, hose, saws and other firefighting/rescue tools. The equipment savings from the eliminated apparatus exceed $100,000 due to cost avoidance.

The rightsizing of the fleet has also eliminated the need for an additional fire station to store a large fleet. This helps facilitate the ability to decommission Station 4.

Fire Apparatus ("Heavy Apparatus")

CGFD has the right number of fire apparatus, and the focus will now be to replace apparatus at recommended intervals. Recommendations are based upon use, NFPA standards and industry best practice. The SOC offers recommendations for apparatus replacement. The SOC recommends fire engines and ladders ("heavy apparatus") be replaced every 15 years and may serve as a reserve apparatus for an additional 10 years. All apparatus should be removed from the fleet after 25 years of service since they are no longer considered road worthy.

The department needs to maintain the following apparatus to operate:

- 1 Primary Fire Engine
- 1 Ladder Truck
- 1 Tender
- 1 Reserve Fire Engine

The apparatus fleet allows for adequate response to hazards present in the community including single family homes, multi-family dwellings, large commercial or industrial structures and fires in areas without fire hydrants. A reserve apparatus is critical to ensure continued operations when vehicles are out of service for maintenance or repair.

The current heavy apparatus fleet is within replacement timelines (except the reserve apparatus) which allows for deliberate future planning.

Apparatus	Vehicle Year	Replacement Year	Notes
Engine 4	2012	2027	Will become reserve engine once replaced
Ladder 1	2019	2034	
Ladder 2	2003	n/a	Reserve apparatus; remove from fleet once Engine 4 replaced
Engine/Tender 3	2026	2041	Delivery 2026; current is from 1996

Standards of Cover Recommendation
Consider heavy fire apparatus replacement at 15 years. Heavy apparatus can be utilized in a reserve status for an additional 10 years (25-year total age).

Staff Recommendation
Replace heavy fire apparatus at 15 years and keep as reserve apparatus when necessary for an additional 10 years.

Policy Decision
Provide direction on heavy duty fire apparatus replacement

Auxiliary and Light Duty Apparatus

Auxiliary and light duty apparatus serve many functions within the fire department from Chief response, specialized rescue and wildland fire response. Auxiliary and light duty vehicles are recommended to be replaced every ten years.

The current auxiliary/light apparatus fleet needs of CGFD are:

- 3 Chief vehicles (SUVs)
- 1 Fire Marshal vehicle (SUV)
- 1 Brush Engine (wildland fire vehicle)
- 1 UTV (wildland fire vehicle)
- 1 utility truck

The current auxiliary and light apparatus fleet is behind replacement timelines as demonstrated below.

Apparatus	Vehicle Year	Goal Replacement Year
Brush 2	2014	2024
Utility	2010	2020
UTV	2014	2024
Squad 1 (Chief 1)	2015	2025
Squad 2 (Chief 2)	2025	2035
Squad 3 (Chief 3)	2017	2027
Squad 4 (FM)	2018	2028

Due to several light duty apparatus already out of recommended replacement timelines, there will need to be a deliberate effort to balance replacement and the fiscal ability to replace apparatus. Below is a revised replacement plan offered by fire staff to accommodate a more balanced approach without over-extending replacement of vehicles.

Apparatus	Vehicle Year	Replacement Year	Revised Replacement
Brush 2	2014	2024	Replace 2029
Utility	2010	2020	Replace 2027
UTV	2014	2024	Replace 2029
Squad 1 (Chief 1)	2015	2025	Replace 2027
Squad 2 (Chief 2)	2025	2035	Replace 2035
Squad 3 (Chief 3)	2017	2027	Replace 2029
Squad 4 (FM)	2018	2028	Replace 2030

Standards of Cover Recommendation
Consider light duty apparatus replacement at 10 years.

Staff Recommendation
Replace light duty apparatus every 10 years. Several vehicles have exceeded recommended timelines. Recommend establishing a plan to balance fiscal realities while avoiding significant overextension of replacement timelines.

Policy Decision
Provide direction on fire department light duty and auxiliary vehicle replacement.

Ambulance Replacement

Ambulances ("Medic units") provide EMS response and transportation. Ambulances are recommended to be replaced every seven years. When a reserve ambulance is needed, an ambulance may be kept for three additional years in a reserve role (10 total years). The fire department currently has three ambulances as listed below:

Apparatus	Vehicle Year	Replacement Year
Medic 1 - Dodge	2021	2029
Medic 2 - Ford	2018	2027
Medic 3 - Ford	2025	2032

There has been a great effort to meet recommended replacement timelines for ambulances. In 2018, due to accidents, CGFD had to purchase two ambulances between 2018/2019 which exacerbated future replacement timelines. With a focused effort, CGFD is catching up with its ambulance replacement timeline which reflect extended timelines in the above table.

CGFD's current goal is to staff two ambulances 24 hours per day, which allows one ambulance to serve in a reserve role. This allows the replacement timeline to be stretched for one of the ambulances to ten years.

As the department evaluates operating a third ambulance 24 hours per day in the future, a fourth ambulance will need to be considered. With a third staffed ambulance, three

ambulances will serve as front-line units with one ambulance in reserve to ensure coverage during downtime for maintenance or repair.
The table below summarizes major capital needs including station modifications in the next ten years. The table below includes fire department recommended timelines that stretch replacement outside of ideal replacement timelines.

Vehicle	Replacement cost (2026)	2027	2028	2029	2030	2031	2032	2033	2034	2035
Engine 4	$1,000,000	X								
Ladder 1	$2,200,000								X	
Engine/Tender 3	$550,000 (Ordered 2025)									
Utility Truck (2010)	$90,000				X					
Brush Truck (2014)	$175,000			X						
UTV	$25,000			X						
Chief 1	$75,000	X								
Chief 2	$75,000									X
Chief 3	$75,000			X						
Fire Marshal	$75,000				X					
Ambulance 1	$325,000			X					X	
Ambulance 2	$325,000	X								
Ambulance 3	$325,000						X			
SCBAs*	$325,000			X						
Dorm Additions	$200,000	X								
Bay Addition	$1,150,000			X						

*SCBAs are not discussed in this document. The fire department is actively seeking grants to cover the replacement of SCBAs however they will need replacement by March 2029 if a grant application is unsuccessful.

Standards of Cover Recommendation
Consider ambulance replacement every 7 years; reserve ambulance can be utilized for an additional 3 years for a total of 10 years.

Staff Recommendation
Replace ambulances every 7 years; keep one ambulance in reserve status for an additional 3 -years when needed. Consider a 4th ambulance if a third staffed ambulance is added.

Policy Decision
Provide direction on ambulance replacement

department. CGFD has experienced major staffing transitions over the last ten years that have responded to changing needs and has adapted well. A watershed moment for CGFD's current model was in 2017 when the department assumed all Advanced Life Support (ALS) operations. Prior to 2017, the City of Cottage Grove utilized Police Paramedics as ALS providers and CGFD provided the physical ambulance with staffed EMTs. When an ALS provider was not needed, CGFD provided a BLS-staffed ambulance. As the nature of the fire service and law enforcement transformed leading to increasing demands, mandates and competing priorities, the police department transitioned all ALS response throughout the 2010s with the final transition in 2017. In 2018, CGFD transitioned its full-time firefighters to 24-hour shifts from 12-hour shifts, and its part-time firefighters began working 12-hour shifts. In 2017, CGFD established its current shift staffing with six, 24-hour positions to staff department operations between part-time and full-time Firefighters/Paramedics (or EMT.)

As part-time firefighter recruitment and retention became more challenging at a local, state and national level, CGFD transitioned half of its part-time positions to full-time positions in 2024 and 2025. The current full-time staffing for the department is 16 firefighters. CGFD currently is staffed with 16 full-time firefighters with no position vacancies. CGFD currently has 8 part-time firefighters, which is half of the required part-time firefighters required to fill shifts.

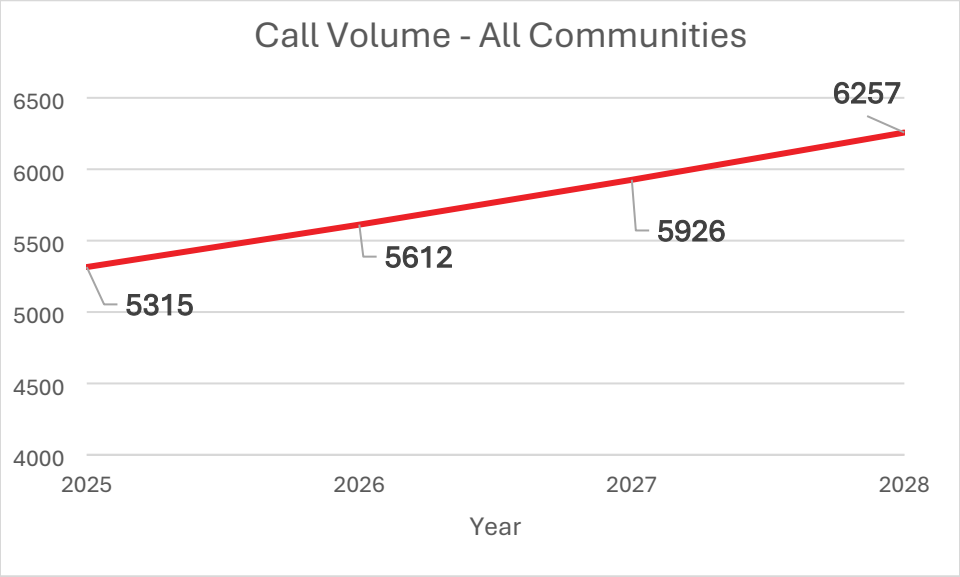
The staffing needs analysis and recommendations are for shift-based full-time Firefighter/Paramedics. The Organizational Study in 2019 did exceptional work evaluating leadership needs for CGFD that provided an appropriate structure to adapt to a growing department. The City Council has supported the study recommendations and completed the process of realigning and filling all leadership positions.

The SOC evaluated staffing within two contexts: risk and staff utilization. Under a risk management model, the city must decide on an acceptable level of risk based on current and future staffing needs. In other terms, how much liability is considered acceptable during periods of simultaneous calls and any response to future calls may be impacted in terms of time and available resources. Another way to evaluate risk is by the concurrency of calls, which means CGFD cannot provide a response to the next call for service. The second context evaluated is staff utilization.

In late 2024 and throughout 2025, there have been discussions regarding Cottage Grove's role in providing EMS service to St. Paul Park, Newport and Grey Cloud Island Township. The SOC evaluated the impact service demands of those communities has on staffing needs for the department. Through data analysis in the SOC, it was found "*there is no need for additional investment beyond what is required to respond to Cottage Grove demands for service."* Staffing requirements for the City of Cottage Grove remains independent from

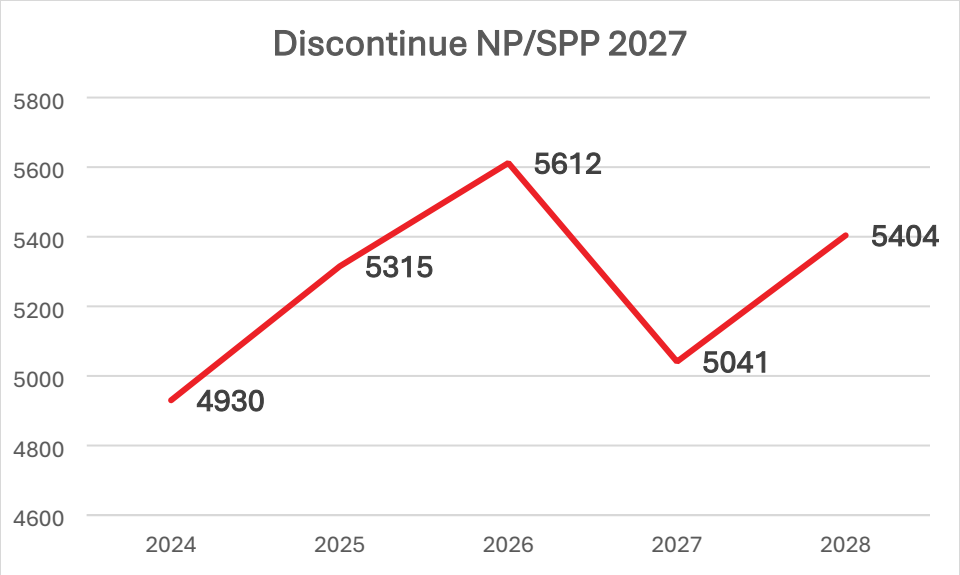
providing EMS to Newport and St. Paul Park. Furthermore, increasing call volume growth is driven by demands in Cottage Grove. Call volume growth between 2023 and 2025 for Cottage Grove was 21.6 percent compared to 1.4 percent in St. Paul Park and Newport. The annual call volume increase in Cottage Grove averaged 7.2 percent while the average call volume growth for Newport and St. Paul Park combined was -0.9 percent. Overall, with all communities combined, total call volume increased from 2023 through 2025 was 17.6 percent with an average annual increase of 5.6 percent. Call volume within Cottage Grove is the driving force for rapidly increasing call volume.

In a scenario where total call volume is evaluated, the first graph demonstrates call volume with all communities including Newport and St. Paul Park.



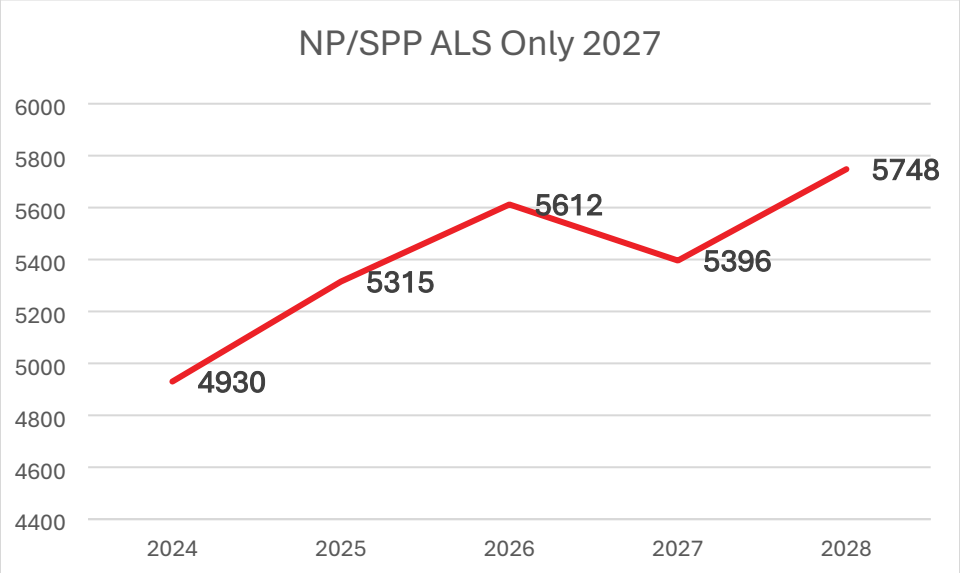
*5.6 percent call increase year to year (2023-2025 average)

The second graph depicts the impact of ending EMS service to Newport and St. Paul Park on January 1st, 2027.



*Assumes a 7.2 percent call increase year to year-Cottage Grove call volume growth (2023-2025 average)

One scenario that may be considered as an option for Cottage Grove to provide ALS service to Newport and St. Paul Park while a third party provides BLS service. The graph below demonstrates this impact on call volume starting in 2027:

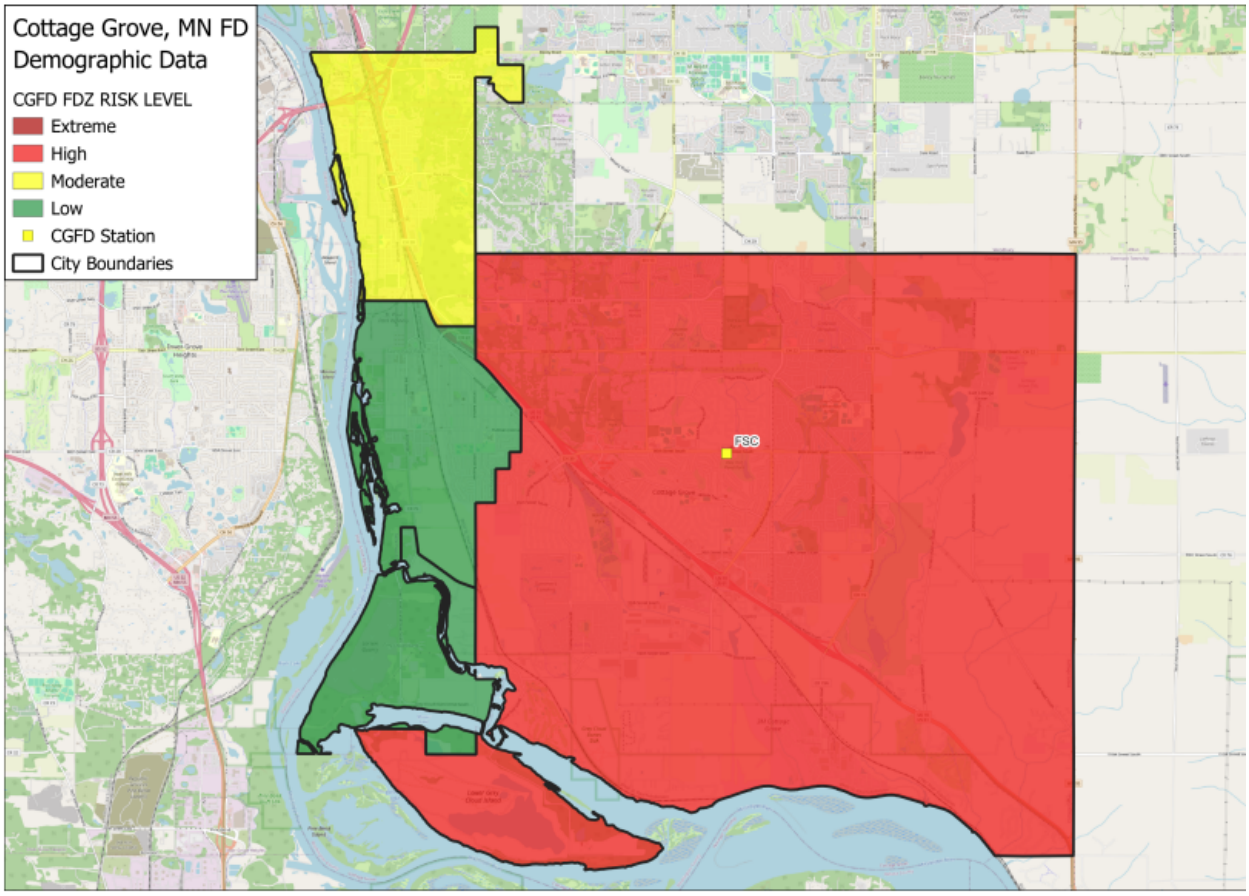


*Assuming 39 percent ALS transport rate[4]

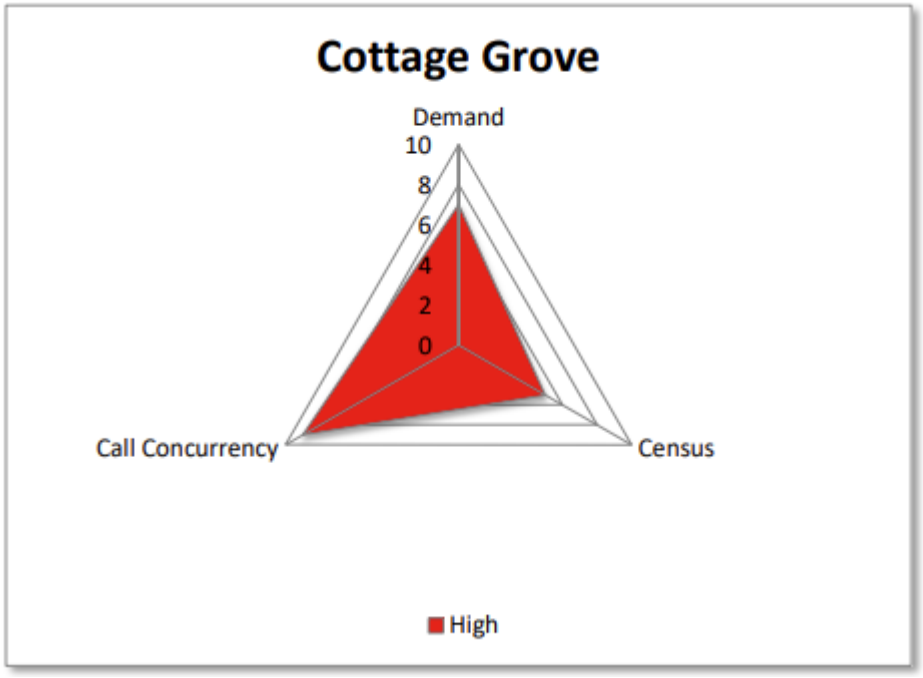
The SOC evaluated risk independently in Cottage Grove, Newport and St. Paul Park as all communities are within the department's EMS service area. Risk factors included

[4] ALS vs. BLS determination take from billing data and not dispatch data. Calls dispatched as ALS are likely higher.

population density, area of community (square miles), socioeconomic data, call volume and call concurrency (call overlap). These factors lead to an overall risk assessment that is scored and categorized on a scale of low, moderate, high and extreme. Cottage Grove received “high-risk,” Newport “moderate” and St. Paul Park and Grey Cloud Island Township “low risk.”



From the risk data, a three-axis risk profile is developed to represent the community risk. The risk for Cottage Grove is driven by demand, population and call concurrency. Call concurrency is the significant driver of community risk.



Call concurrency is the leading risk factor to the ability for the fire department to provide services to the community.

Call concurrency requires the most immediate action to mitigate the risk multiple simultaneous calls have on the community. In 2024, the call concurrency rate by jurisdiction is:

Jurisdiction	2024 Percentage of Overlapping Calls
All (CG, mutual aid, GCI, NP, SPP)	39.9
Cottage Grove Fire and Mutual Aid	34.1
City of Cottage Grove only	27

CGFD has an obligation to provide mutual aid to neighboring communities which does contribute to the concurrency rate; however, the City of Cottage Grove alone has a significant concurrency rate. In other words, the City of Cottage Grove would still have a concurrency rate of 27 percent if it had no obligations to respond outside of the city, including mutual aid.

The greatest risk regarding call concurrency for CGFD is that once a second call overlaps an active incident, CGFD does not have an additional resource to respond to a call, which leads to a high reliance on mutual aid, increased response times, and the potential for adverse outcomes. In 2024, CGFD requested EMS mutual aid 17 percent of the time, or 631 times.

The above represents data from 2024. In a brief analysis of 2025 data done by fire department staff, this overlapping concurrency rate is now at 44 percent for all jurisdictions in Cottage Grove's service area. In 2025, there were three or more

simultaneous calls, 11.6 percent of the time and four or more simultaneous calls 2.6 percent of the time. In 2025, Cottage Grove alone, if it had no obligations to respond to mutual aid is now over 30 percent (30.3 percent.) The current capacity of the fire department is to respond to two simultaneous calls only, leaving all other calls without a Cottage Grove Fire Department response.

When EMS mutual aid is needed, the additional EMS unit must come from a neighboring community such as Woodbury Fire, M Health from bases in Dakota County or Hastings Fire. Since stationed mutual aid EMS resources have significant drive times to reach Cottage Grove, the mutual aid response time is significant and creates great delays in responding to emergencies. For example, Woodbury response times to Cottage Grove averaged 10:46 and a 90th percentile of 15:14. In 2025, CGFD had a response time average of 6:05 and 90th percentile of 8:59. Response times from other mutual aid partners likely exceed the Woodbury response times[5].

EMS mutual aid need is an outcome of the high concurrency rate and the daily resources staffed. While high EMS mutual aid rates are undesired and the delayed response creates a significant risk to those in need of EMS assistance, the high level of overlapping calls leads to significant gaps in fire suppression coverage. Once a second call occurs, the city is left without dedicated fire coverage most of the time[6]. When there is no dedicated fire suppression resource, a fire department call-back is initiated (off-duty fire fighters are requested to respond from home) and mutual aid resources are made. As with EMS mutual aid, response times are greatly increased while waiting for mutual aid partners and fire outcomes worsen.

Evaluating risk and matching staffing resources, fire staff recommend staffing two ambulances (4 firefighter/paramedics) and one fire engine (Minimum 2 firefighter/paramedics) every day for 24 hours per day as soon as possible. This will allow 24/7 coverage of the city with a paramedic equipped fire engine. Utilizing a paramedic equipped fire engine as a third unit significantly reduces risk in the City of Cottage Grove by providing ALS first-response care while waiting for extended mutual aid response times, dedicated fire and rescue coverage, and allows staff to complete needed inspection and community risk reduction initiatives. A dedicated paramedic fire engine is an industry standard and best practice for ALS-based Fire Departments with comparable populations in the Metro area.

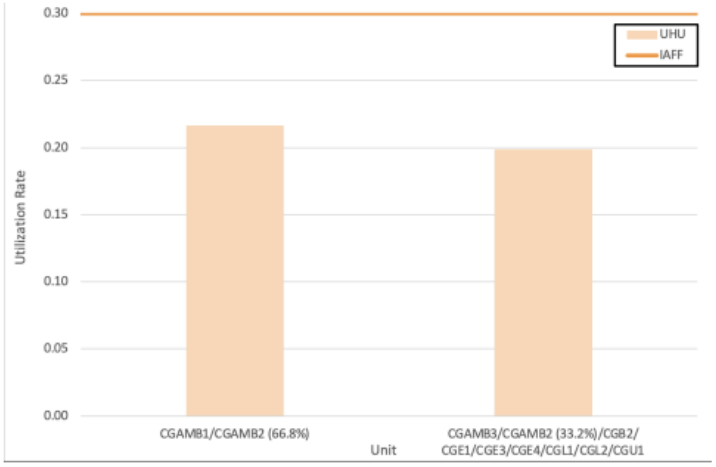
The risk profile in Cottage Grove, especially considering the reality of a high call concurrency, justifies additional units to respond to community demand to mitigate risk. The other evaluation that is used for staffing needs analysis is production and efficiency. Risk and productivity should be viewed not as independent factors but should be used jointly to decide on resource additions.

[5] Data from non-Washington County mutual aid partners may not be accurate due to differences in data collection among communication centers.

[6] Current staffing allows for about 15 percent of shifts with a dedicated fire engine assuming full staffing

A driving metric on production and efficiency is unit hour utilization (UHU.) UHU was developed in more business minded agencies such as private and for-profit EMS; however, it has gained traction in the fire service and fire-based EMS as a helpful metric. UHU is the number of hours on task divided by the number of hours staffed. The UHU evaluation for CGFD is at action thresholds. Industry standard and best practice recommend that once a UHU exceeds 0.25 for a fire or EMS resource, the department should add a dedicated resource. The overarching recommendation is that action to add a resource should start once a resource nears a 0.25 UHU and a 0.3 UHU should never be eclipsed to prevent a significantly higher incident of accidents, injuries and death to both patients and firefighters. The UHU for CGFD would primarily be used to establish a need for additional ambulance resources. Since CGFD cross-staffs an engine with a 2nd ambulance most of the time, the department's staffing is described as having one dedicated ambulance and one cross-staffed fire engine/ambulance.

The 2024 UHU for the fire department is below:



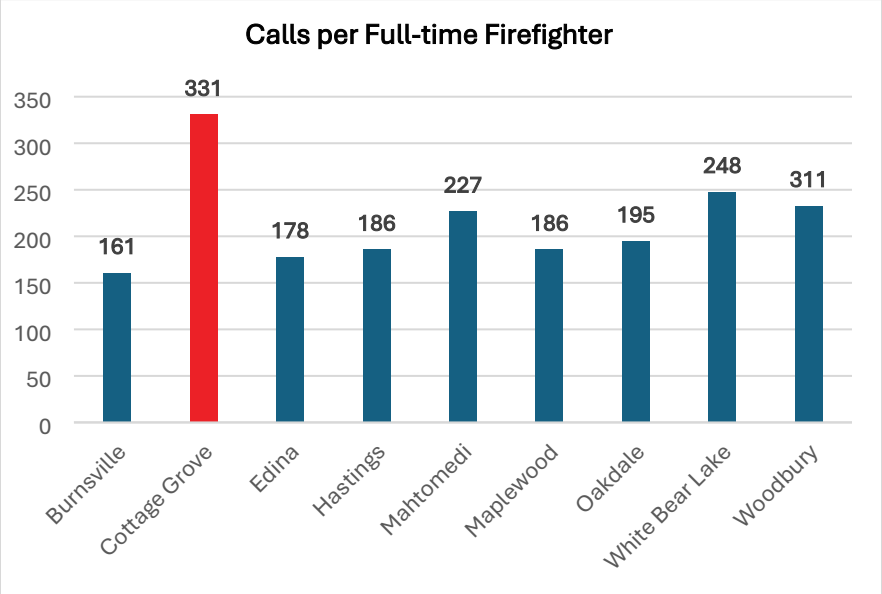
The 2024 UHU for the primary ambulance unit is 0.22. Based on current incident volume increases, the action threshold of 0.25 will be surpassed in 2026 and the "red-line" threshold of 0.3 will be surpassed by 2028.

While the UHU suggests the department may have flexibility to ramp-up staffing over two years, a recommendation in the study is that a second dedicated resource is recommended after 30 percent call concurrency, which prompts action sooner than what the UHU may allow. The SOC showed a concurrency of 39.9 percent while 2025 data demonstrated a concurrency of 44 percent. Furthermore, having both of CGFD's staffed units closing in on the 0.25 threshold demonstrates reaching maximum capacity within the current staffing matrix.

There is an additional dataset that is helpful to evaluate staffing. Comparing CGFD staffing to other local similar departments can be helpful to establish local and regional staffing standards. For example, staffing in the Twin Cities Metro is much less than what would be found in the Los Angeles Metro area. Along with comparing current staffing to local norms,

staffing levels are significant drivers for recruitment and retention. Below demonstrates the current staffing levels of Twin Cities Metro Fire-based ALS Fire Departments. The graph and table represent 2025 call volume and 2026 staffing levels. Staffing levels include full-time, shift-based staff only.

Comparative Staffing (Metro Fire-based ALS Services)



	Full-time Firefighters (2026)[7]	Calls for Service (2025)[8]	FT FTE per call
Burnsville	64	10300	161
Cottage Grove	16	5300	331
Edina	42	7454	178
Hastings	21	3902	186
Mahtomedi	6	1359	227
Maplewood	45	8359	186
Oakdale	21	4100	195
White Bear Lake	21	5203	248
Woodbury	27 (36*)	8400	311

* 9 are 2026 budget additions

While there was no specific threshold established for metro area departments on what the right threshold for calls per firefighter to be, the 200 calls per full-time firefighter tends to be a reasonable target for departments as most have made staffing additions to reach or exceed this goal. Regardless of the specific number per firefighter, the comparative

[7] Excludes Chief staff and non-shift-based (administration) staff.
[8] Data was obtained for call volume through November 30th, 2025, and estimated for December 2025.

analysis allows evaluation of how Cottage Grove compares to area fire departments with ALS transport.

Shift Schedules

2756 Hour Schedule vs. 2912 Schedule and FLSA Overtime

The term staffing refers to both the number of firefighters and how firefighters are scheduled. A recommendation in the SOC is to consider transitioning full-time firefighters from a 2756-hour work schedule to a 2912-hour work schedule. This reference is to the total number of hours firefighters are scheduled. In traditional work settings, employees receive overtime pay for any hours worked over 40 hours a week as established by the Fair Labor Standards Act (FLSA). The 40-work week equates to 2080 hours per year for a traditional employee. Firefighters are inherently different because the 24-hour workday allows time to rest while on duty. While rest is allowed, the firefighter is ready to respond to any call for service even during rest times. Allowing firefighters to work 24 hours per day is mutually beneficial to employees and employers. Employees get more "days-off" while the 24-hour shifts allow the employer to need fewer total employees to staff a fire department. FLSA allows for an exception which is commonly referred to the "FLSA 7(k) exception" on how firefighters are paid overtime. While the FLSA 7(k) exception calculation can cause confusion, the simplest explanation is that firefighters do not have to be paid overtime until they reach 53 hours per week. The 53 hours per week equates to 2756 hours per year. Any hours worked over the threshold must be paid overtime.

Many fire departments schedule firefighters with a 2912-hour schedule. The 2912 schedule allows for complete 24-hour staffing that is typically done over three shifts. The three shifts with 2912 schedules provide for a complete 365-day schedule. The 2912 schedule does require firefighters to be paid 156 hours of overtime per year if all hours are worked. This 156 hours of overtime would be distributed throughout the year.

When CGFD transitioned to 24-hour shifts for full-time firefighters in 2018, a 2756-hour schedule was implemented instead of a 2912-hour schedule. Since 2756 schedules were utilized to prevent FLSA overtime, it requires firefighters to be given additional time off. Instead of 156 hours of overtime, firefighters with a 2756 schedule get an additional 156 hours of paid time off. This paid time equates to one paid 24-hour shift per quarter and one paid four-hour period every 28 days (scheduled time off).

The additional paid time-off has exacerbated any already tight staffing situations. CGFD must cover an additional 2,340 (156 hours per full-time Firefighter) in the schedule on top of other annual leave accruals. This exacerbates overtime needs and any overtime costs that were prevented with a 2756 schedule are likely lost as shifts are filled with firefighters on overtime and paid out at a dollar amount of overtime. Simply, firefighters are being paid overtime to cover firefighters that are off work to prevent overtime.

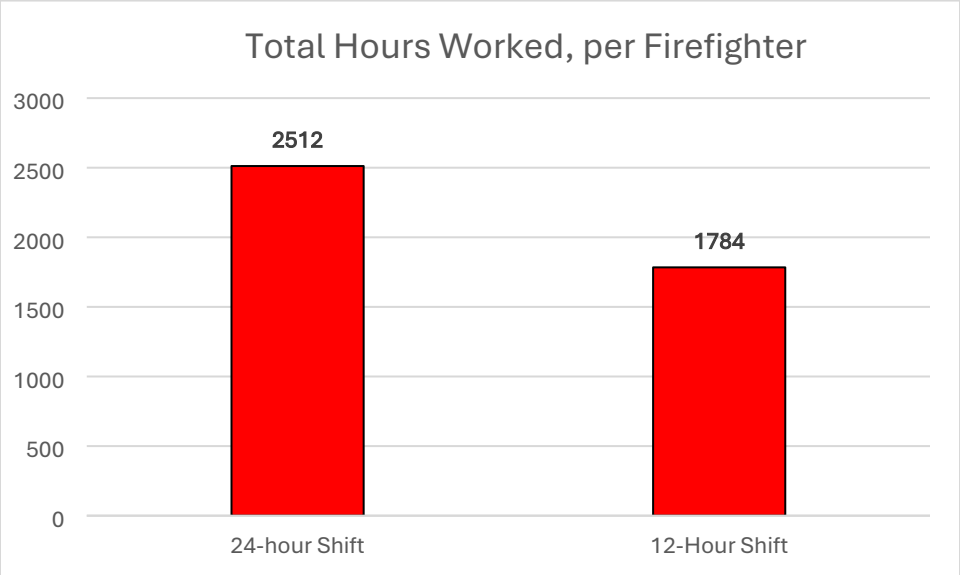
A conversion to a 2912 schedule from a 2756 schedule would require agreement from the full-time Firefighters Union (IAFF Local 2570.) The current contract ends at the end of 2026

and the earliest a 2912 schedule could start would be in 2027 if the City and Union agree to the change.

24-hour vs. 12-hour shifts

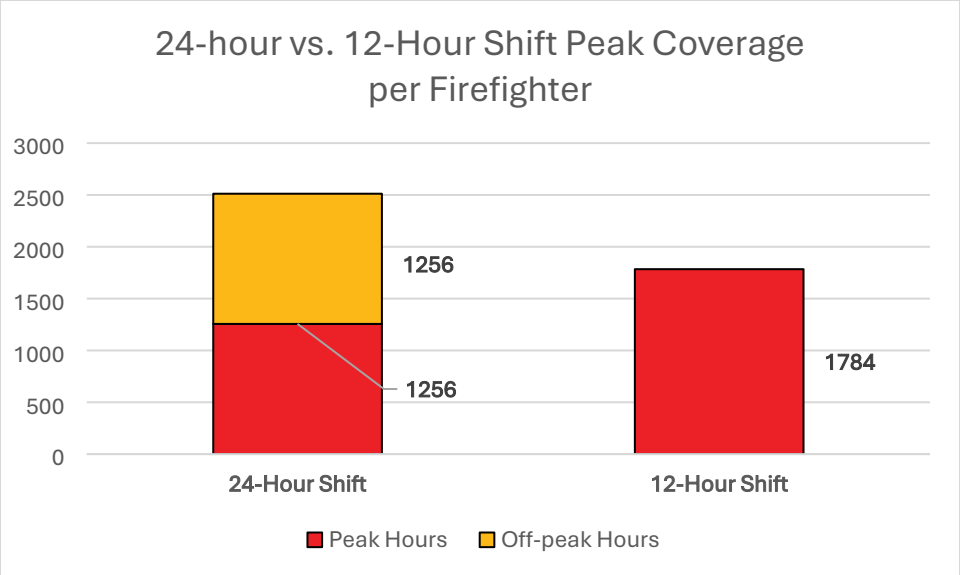
A suggestion in the SOC study offers 12-hour "Peak Demand" units as an option to schedule firefighters. The 12-hour unit would be covered by firefighters that work 12-hour shifts. Firefighters working 12-hours shifts would work 2080 per year and would have a 2080 per year overtime threshold. Firefighters have the same base salary regardless of the hours worked per year. That is, firefighters that work 2080 hours per year have the same base salary as a firefighter that works 2756 or 2912 hours per year. The hourly rate is adjusted based upon their scheduled annual salary.

While 12-hour shifts might sometimes be a reasonable and compelling option, fire department staff do not recommend this. First, this scheduling option for full-time firefighters in the Twin Cities Metro is rare with only one department utilizing it currently. There has not been much demand for it and most firefighters that work the 12-hour shift use it as a stepping-stone to get to 24-hour shifts with another organization. Second, it does provide peak-level staffing; however, with a significant reduction in total hours covered. The below offers a comparison of the total hours worked and the peak hours between 12-hour shifts and 24-hours shifts. The 24-hour shifts are based on a 2912 schedule. The graphs demonstrate total hours worked with annual leave (paid time-off) subtracted[9].



*Total hours worked is total scheduled hours minus annual leave

[9] Annual leave was calculated per the 2025-2026 contract based on a 5–9-year employee.

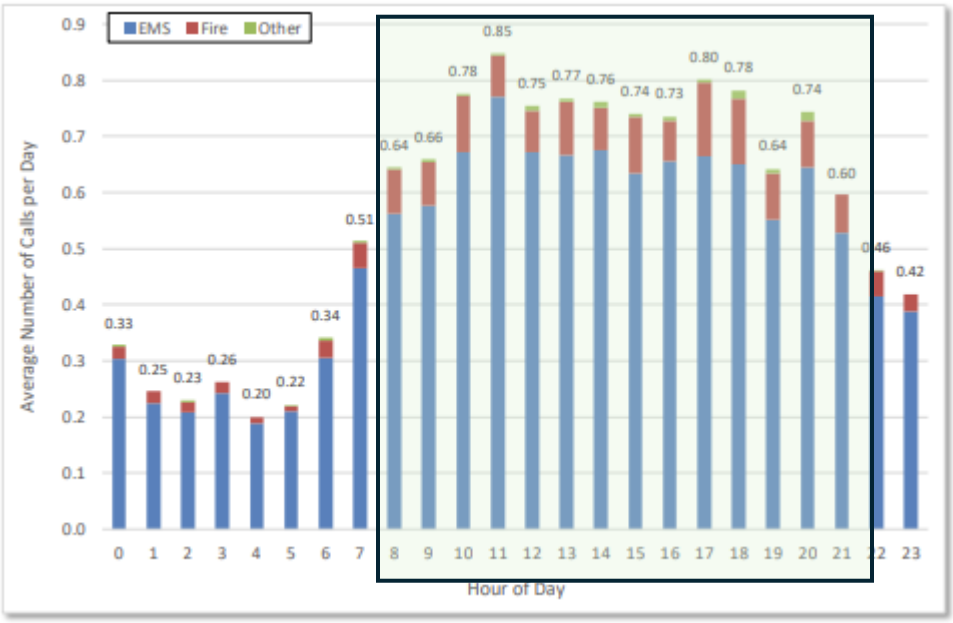


*Total hours worked is total scheduled hours minus annual leave

A 24-hour firefighter works 30 percent fewer peak hours (assuming only 12 hours of peak calls per day); however, the 24-hour firefighter works 41 percent more hours in total. A major factor for firefighter health and fatigue is a lack of rest periods overnight. 12-hour firefighters do not help provide additional coverage at night and when 12-hour shifts are considered, the lack of coverage overnight must be considered for firefighter health and wellness.

Furthermore, a more careful analysis of the peak-call period for CGFD is from 8am to 10pm, which equates to 14 hours using 0.6 calls per hour as a threshold.

24-hour Call Distribution



Including these additional hours to cover peak hours in the 24-hours schedule (14 hours of peak calls), the 24-hour shift covers 1465 peak hours while the 12-hour shift covers 1784 peak hours.

12-hour shifts do not improve fire response for "non-peak" hours, specifically overnights. It must be highlighted that the highest rate of fire fatalities in homes occurs overnight with the highest percentage of fatalities occurring from midnight to 1am[10]. As the risk of fire fatalities increase overnight secondary to the higher likelihood of people will be at home sleeping, the fire department must have adequate staffing to respond to fires with potential victims.

12-hours shifts are used more frequently when a department can only add one or two firefighters at a time. To increase on-shift staffing 24-hours per day over all three shifts, it does require three additional Firefighters. 12-hour shifts may provide a more "even" addition, although they are temporary until a third firefighter can be hired. CGFD staff recommend 24-hour shifts as they provide better coverage overall without additional financial burden. CGFD currently has 16 full-time Firefighters; one of the three shifts has six full-time Firefighters, and the other two shifts has five full-time Firefighters. CGFD has experienced success with this model, which has allowed better coverage and recommends this continued approach.

[10] USFA, 2022. Fatal Fires in Residential Buildings (2018-2020)

Fire Staffing Assignments and Deployment

Prior to evaluating staffing recommendations, the deployment and truck assignments for the department are provided to help with vocabulary related to units and staffing.

Fire Engine

- Responds to fire and rescue calls
- Provides ALS first response (CG only)
- Provides additional Paramedics for critical EMS calls
- Non-response duties:
  - Fire Inspections
  - Training
  - administrative duties
  - public engagement and public education
  - Shift Supervision (Captain)



Fire Captain **FAO/Inspector**

Minimum staffing is 2

Medic 1

- Responds to EMS calls
- Firefighters respond in Medic unit to fire/rescue calls
- Non-response duties:
  - training
  - administrative duties (cleaning, maintenance, etc.)



Firefighter/ Paramedic

Firefighter/ Paramedic or EMT

Medic 2

- Responds to EMS calls
- Firefighters respond in Medic unit to fire/rescue calls
- Non-response duties:
  - training
  - administrative duties (cleaning, maintenance, etc.)



Firefighter/ Paramedic

Firefighter/ Paramedic or EMT

Medic 3/Ladder 1/Tender

- Cross-staff ambulance and Ladder truck
- Responds to EMS calls in ambulance
- Responds to fire and rescue calls in Ladder
  - Tender in no-hydrant areas
- Non-response duties:
  - Training
  - Community Paramedic visits
  - Administrative duties



Firefighter/ Paramedic



Firefighter/ Community Paramedic

*To staff Medic 3/Ladder 1/Tender would require a minimum of 8 firefighters working on-shift.

Call-back Staffing

- Staff is “paged”/call-backed for significant incidents
- Examples: structure fires, water rescue, hazardous materials response
- Full and part-time staff may respond
- Primary unit is Ladder if not staffed
  - Tender or pick-up truck if Ladder is staffed
- Number of staff responding is unpredictable





Fire Staffing Scenarios

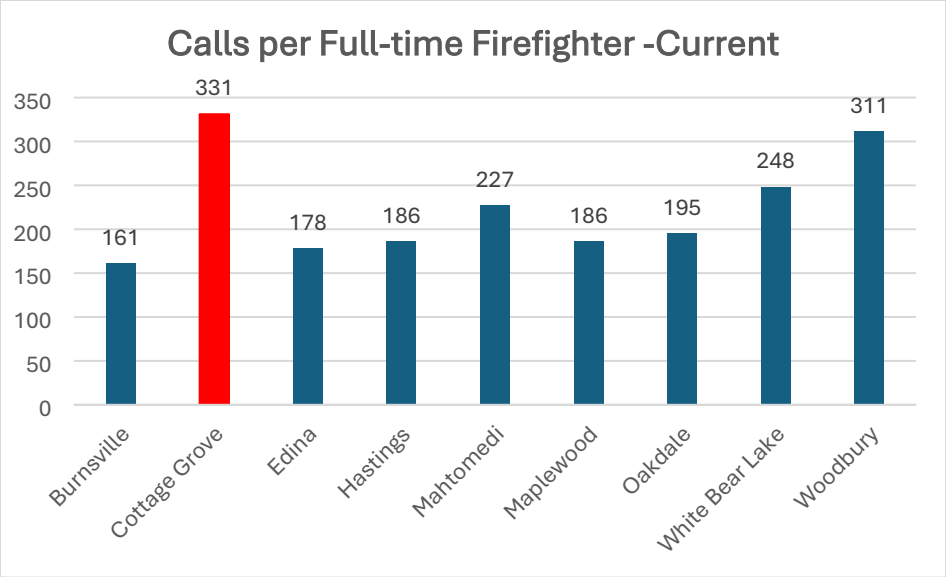
The SOC offers staffing recommendations based on data and what level of service is desired by the community. The data demonstrates that CGFD will need to add an additional unit(s) within four years. The SOC offers a good, better, best model. Ultimately, the City Council will direct what level of service CGFD will provide based upon community demand and financial realities. The SOC and CGFD offer the below staffing scenarios to offer what may be accomplished in terms of staffed unit percentage, what the expected mutual aid need would be and what additional community risk reduction improvements could be made. The "average daily staffing" is what would be expected on average to account for annual leave. Call concurrency is addressed by adding additional units and the reduced risk is addressed with each unit added, which would decrease the mutual aid percentage. Each table will include the impact a conversion to a 2912 schedule would have. Comparative staffing is offered with each scenario as well. Fire Staff recommends rounding to multiples of three to allow for even shift numbers.

Levy impacts are based upon 2026 per firefighter average cost and assuming 100 percent being funded from the general fund.

Current Staffing – Current State/Capacity

Full-time Firefighters	16
Average Daily Staffing	4.3
People per shift (minimum staffing)	4
Units	**Percentage Staffed**
Medic 1	100 percent
Medic 2/Fire Engine (crossed-staffed)	100 percent
Dedicated Fire Engine and dedicated 2nd ambulance	15 percent
Mutual Aid Percentage – calls uncovered in Cottage Grove	17 percent
FTE Adds	n/a
Levy Increase Impact	n/a

- High-mutual aid percentage due to cross-staffing fire engine/medic and call volume
- High OT requirement to maintain minimum staffing (minimal buffer to cover time off)

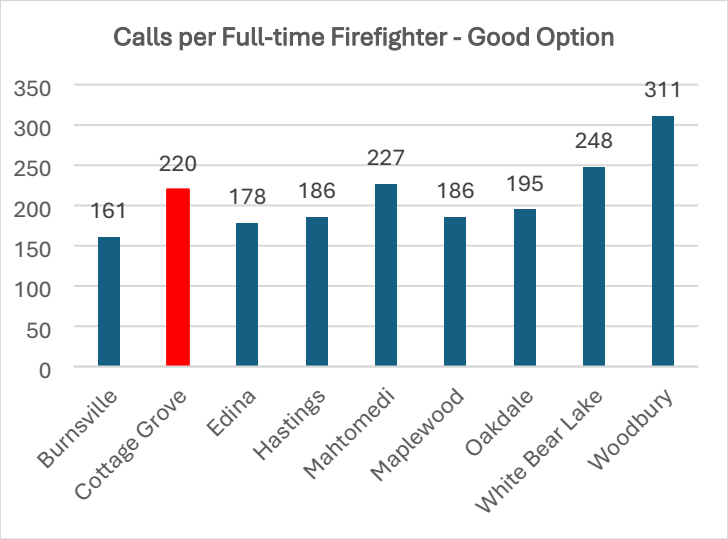


Staffing- Good Option

Full-time Firefighters	24
Assigned Firefighters per shift	8
Average Daily Staffing	6.47
People per shift (minimum staffing)	6
Units	**Percentage Staffed**
Medic 1	100 percent
Medic 2	100 percent
Fire Engine (dedicated)	100 percent
Medic 3/Ladder/Tender (cross-staff)	24 percent
Mutual Aid Percentage	10 percent
FTE Adds*	8
Levy Increase Impact	$1,327,200

- Provides 100 percent fire and ALS first response coverage for City 24/7
- Fire Engine would ALS first respond for all EMS mutual aid (CG only)
- Dedicated fire engine staffing improves ability to perform proactive fire inspections, fire prevention education and public engagement
- Significant improvement in mutual aid percentage
- Third ambulance cross-staffed 25-44 percent
- Fire Chief staff recommend rounded staffing to 24 (1 additional position from study)

Comparative Staffing- Good Option

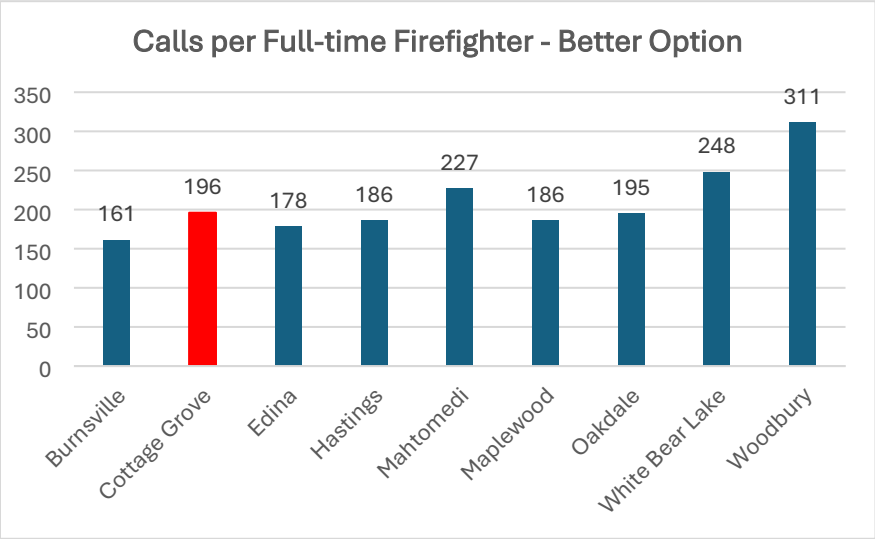


Staffing - Better

Full-time Firefighters	27
Assigned Firefighters per shift	9
Average Daily Staffing	7.28
People per shift (minimum staffing)	7
Units	**Percentage Staffed**
Medic 1	100 percent
Medic 2	100 percent
Fire Engine (dedicated)	100 percent
Medic 3/Ladder/Tender (cross-staff)	64 percent
Mutual Aid Percentage	5 percent
FTE Adds	11
Levy Increase Impact	$1,824,900

- 3rd ambulance availability drives mutual aid percentage to/below 5 percent
- Fire Chief staff recommend rounded staffing to 27 (1 additional position from study)
- This option may require 4th ambulance to support >75 percent coverage of 3rd ambulance to ensure coverage for ambulance downtime due to maintenance/repair
- Allows for dedicated Community Paramedic coverage

Comparative Staffing – Better Option

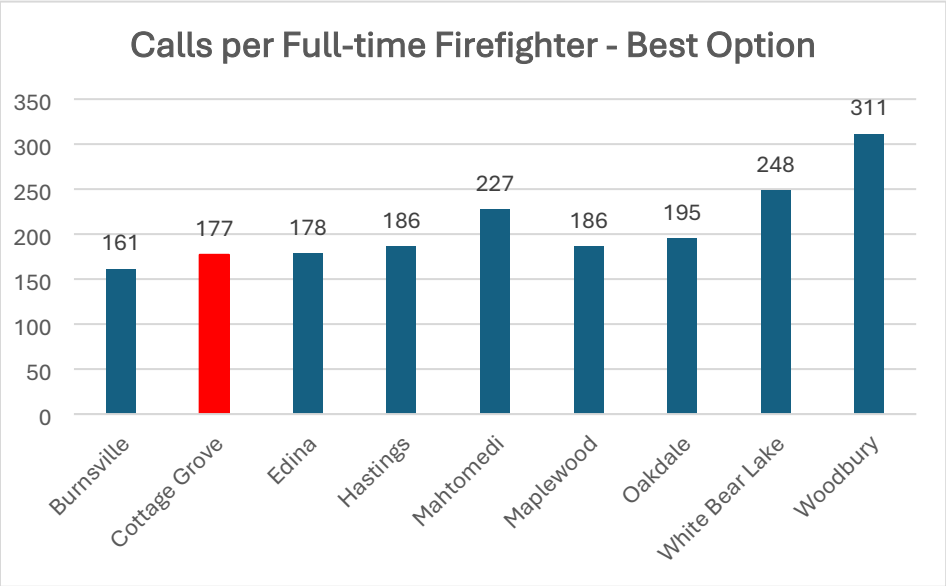


Staffing- Current Goal (Best)

Full-time Firefighters	30
Assigned Firefighters per shift	10
Average Daily Staffing	8.09
People per shift (minimum staffing)	8
Units	**Percentage Staffed**
Medic 1	100 percent
Medic 2	100 percent
Fire Engine (dedicated)	100 percent
Medic 3/Ladder/Tender (cross-staff)	100 percent
Fire Engine with 3-4-person staffing	4 percent
Mutual Aid Percentage	<1 percent
FTE Adds	14
Levy Increase Impact	$ 2,322,600

- 100 percent coverage of 3rd ambulance would require 4th ambulance to ensure coverage for ambulance downtime due to maintenance/repair
- Would allow for increased staffing on fire engine with 3 or 4 firefighters 20 percent of the time, which is best practice, evidence-based and NFPA standard for firefighting operations

Comparative Staffing – Best Option



In the SOC report, there is discussion about a daily minimum of four firefighters based on CGFD's current capacity. This was assessed by the SOC consultants that the desired level of service for the department was a daily minimum staffing of four, which equates to one medic unit and one cross-staffed medic/fire engine. This staffing leads to a high need for mutual aid, reaching a 2024 level of 17 percent. CGFD's goal is to have a dedicated fire engine and two dedicated medic units up to 40 percent of the time. This goal was established by the City Council in 2023 with the Staffing Plan facilitated by Ethical Leaders in Action. To accomplish this goal, there would have to be no part-time staff vacancies, and all part-time firefighters work their hour requirements. Due to chronic part-time shortages, the goal of two dedicated medic units and a staffed engine 40 percent of the time could not be met. CGFD recognizes a 17 percent reliance on mutual aid is well outside the industry standard or what the community would desire. Additionally, failing to staff a third unit, a fire engine, exposes Cottage Grove to an abundance of risk and liability. The SOC details current capacity as four people or two-unit staffing. The SOC staffing addition timeline is predicated on a minimum of two units, which is one unit short of the Council goal set in 2023.

Below offers recommendations from SOC and staff recommendations for staffing.

Standards of Cover Recommendation
The department should plan for the implementation of a 2nd dedicated ambulance unit for daily deployment. It is recommended that this is implemented within the next four years.

Standards of Cover Recommendation
The department is encouraged to fully staff to a minimum staffing of 6 personnel per day to operate 2 ambulances and a fire engine.

Staff Recommendation
Increase Firefighter staffing to allow a minimum daily staffing of 6 Firefighters per day to occur as soon as possible. The minimum daily staffing would provide for 2 dedicated ambulances and one dedicated fire engine.

Policy Decision
Provide direction on firefighter staffing.

Standards of Cover Recommendation

Consider assigning staff to 2,912-hour schedules vs. the current 2,756-hour schedule, which reduces staffing relief multiplier.

Staff Recommendation
Negotiate with IAFF Local 2570 in 2026 labor negotiations (27-28 contract) to increase schedules from the current 2,756-hour schedule to a 2,912-hour schedule.

Standards of Cover Recommendation
Consider good, better, best staffing options to account for current demands and desired fire department capacity

Staff Recommendation
Implement fire department staffing and resources based upon the desired level of service for the community.

Policy Decision
Authorize City Staff to negotiate with IAFF Local 2570 to convert to 2,912-hour schedule.

Policy Decision
Determine desired level of service for the community. Allocate resources to staff to the level of service desired.

Standards of Cover Recommendation
Consider peak demand units

Staff Recommendation
Staff does not recommend peak demand units. 24-hour shifts provide greater hour coverage. There is a very low demand for 12-hour firefighter shift schedules. The low demand may exacerbate already difficulty recruitment and retention.

Policy Decision
Provide direction on peak demand units

Part-time Firefighter Staffing

The Cottage Grove Fire Department was founded in 1959 by an exceptional group of residents dedicated to serving a growing community. CGFD was founded as a volunteer department and this dedication to serving the community remains at the core of the department. Fire, rescue and EMS services have changed dramatically since the original founding of the Cottage Grove Fire Department. Firefighting training and EMS training was once “on the job” training and now entry-level firefighter and EMT training represents 19 college credits. The 19-credit curriculum is the basic foundational requirement to be a Firefighter/EMT. To do advanced skills such as operating a fire truck, serving as a fire officer or a fire inspector requires hundreds of additional hours of training, certification, and continuing education. Entry level paramedic certification exceeds 1,500 hours and over one year of full-time school attendance. Firefighting now is a licensed profession in the State of Minnesota and EMS certification must now be obtained from a national certification network and requires state certification.

CGFD has seen progression in its staffing model as demand for services has increased and as the profession of fire and EMS has evolved. CGFD has evolved from a purely volunteer department to a paid on-call, to part-time firefighters. Volunteer and paid on-call firefighters would respond from home or work when their "pager" alerted them to a call, while the part-time model had traditional paid on-call firefighter working scheduled 12-hour shifts. As the transition from volunteer to part-time occurred, CGFD continued to add full-time firefighters to ensure adequate and predictable staffing to meet community expectations and increasing call volumes. The need for full-time staff was needed as call volumes increased, and Paramedics were required to help support the department's assumption of ALS response from the Cottage Grove Police Department.

The recruitment and retention of part-time, volunteer and paid on-call firefighters ("part-time") is difficult and the challenge has magnified since the pandemic. While CGFD has experienced its own challenges with recruitment and retention, the issue is prevalent locally, state-wide and nationally. While the issue is not new and extends back to the late 2000s-early 2010s, the declining recruitment and retention of part-time firefighters is rapidly growing. There are many correlative and causative factors leading to this phenomenon. Societal changes have led to a fundamental change in the time available to be a part-time firefighter and to meeting the training and certification requirements. Suburban sprawl leading to a commuting workforce, dual income households, evolving roles of parents, generational preferences, community demographics, along with increasing requirements to maintain skills and certifications has driven changes in the ability to recruit and retain part-time firefighters.

In the Twin Cities Metro, there have been many departments that have transitioned from part-time/paid on-call fire departments to full-time fire departments. For departments that remain a combination department, additional full-time firefighters continue to be added as part-time programs are sunset. The number of fire departments that now have full-time, on-shift firefighters has grown exponentially since the early 2000s, which was once rare in the Twin Cities Metro. The typical progression of a Metro area fire department (and common throughout the state and nation) is volunteer to paid on-call to part-time shift-based, to full-time combination to a full-time department. Below represents the typical trajectory of volunteer fire departments in the Twin Cities Metro's growing suburbs.



CGFD has followed the same trajectory. The department was much more proactive than other departments in part-time recruitment and retention and has attempted many things to bolster part-time firefighters. The City Council and City Leadership must be commended in the support they have provided to support part-time firefighter recruitment and retention. The city authorized a significant wage increase for part-time firefighters, which in November 2024, was the second highest in the metro and remains a wage leader for part-time firefighters. Other interventions to help with part-time firefighter recruitment and retention include:

- Decreased training requirements to minimum based on certification.
- Decreased in-person training requirements to less than 12 times per year.
- Increased pension amounts prior to relief dissolution.
- Coordinated PERA contribution after relief dissolution.
- Retention pay per 5 years of service.
- Access to additional training opportunities.
- Held shift requirements to 36 hours per month despite increasing part-time shift vacancy.
- Minimal call-back requirements (20 percent).
- Call-back bonuses up to $1000 for firefighters that exceed call-back requirements.
- Generous leave of absence policy to allow for protected time-off.
- Access to wellness resources (neck-up check, 24/7 workout room access).
- Overtime for public events and callbacks.
- Partnership with local colleges and local high schools' 916 program to host ride-alongs for EMT students to recruit potential candidates.
- Social media and City newsletter recruitment flyers and postings.
- Posting positions on League of Minnesota Cities and other job sites.

Despite exhaustive efforts, the ability to recruit and retain part-time firefighters continues to fall short. In 2018, CGFD had part-time firefighters working over 25,000 hours (this included part-time Chief staff), and in 2024 this was less than 10,000 hours. CGFD relies on two 24-hour shift positions to be covered by part-time firefighters; however, the shift vacancy rate is now over 60 percent. Part-time shift vacancies exacerbate the workload for part-time and full-time firefighters and result in one-unit staffing and/or increased overtime needs. While CGFD requires 14 part-time firefighters, the active roster for part-time firefighters is 8.

CGFD has had success in recruitment by identifying candidates for job interviews. From 2021 through May 2025, CGFD interviewed 103 candidates for part-time firefighter positions. CGFD interviewed 82 candidates in the two-year period of 2023-2025, which coincided with an increase in recruitment activities and outreach after the 2023 staffing study with Ethical Leaders in Action. CGFD initiated dozens of background studies for candidates along with conditional job offers; however, only 15 part-time firefighters started employment during that time. Of the15 part-time firefighters that started with the department between 2021 and 2025, only four remain employed. Two of the candidates in this pool became full-time firefighters with Cottage Grove.

There is a cultural cost to frequent turnover including team cohesiveness, maintaining organizational culture, burn-out of Field Training Officers (FTOs) and staffing shortages caused by high shift vacancies. There is also a fiscal cost to high turnover. Training and equipping a part-time firefighter costs between $12,000 and $15,000 per firefighter that enters the organization. With a 43 percent two-year turnover and a 71 percent five-year turnover, the fiscal impact is significant. When placed in the context that requires approximately one year to train and on-board (FTO) a new part-time firefighter to work independently on shift, the cost of high turnover is not sustainable anymore. The leading cause of turnover is that part-time firefighters take jobs as full-time firefighters or are unable to meet the minimum requirements due to work and or family obligations. While it is made clear to part-time firefighters what the requirements will be prior to starting, it is hard to put into context unless they are actively working and then balancing family, work and other obligations.

The data and experience of CGFD is consistent with what other departments that have transitioned to a full-time department have experienced. The amount of effort and intervention CGFD has implemented has not solved the part-time firefighter recruitment and retention problem and it has continued to become worse. CGFD has evolved greatly in mission and call volume along with the substantial changes within fire/EMS service and society. CGFD acknowledges this and seeks a path forward from the part-time workforce.

The potential loss of the part-time firefighter program is substantial. Most of CGFD's current full-time firefighters and all the chief staff started their careers as part-time/volunteer/paid on-call firefighters, and the current and past part-time staff have helped ensure the success of the department since its inception. Due to the rich history of a volunteer and part-time fire department, this is a difficult discussion and decision.

However, there are some components that the department seeks to address with a transition from part-time firefighter program to an all-career fire department.

First, current part-time firefighters would remain with the department. Part-time firefighters would be allowed to continue to serve. This would allow for them to continue their dedicated service without being "forced out." This is considered "sun-setting" as part-time firefighters would be able to remain on the department; however, no new part-time firefighters would be hired. As full-time positions are added, qualified and interested part-time firefighters that align with the City's and CGFD's core values would receive priority for full-time positions. The creation of the accelerated recruitment program (Firefighter/EMT to Firefighter/Paramedic) has made full-time positions attainable for non-paramedic candidates.

Second, the part-time program has provided to be a potential recruitment source for full-time firefighters both with Cottage Grove and other area departments. CGFD would seek to continue the spirit of this through a re-imagined and defined Fire Cadet Program. The scoped approach allows CGFD to hire interested candidates and pay a living wage and benefits while they learn and earn the certifications and skills necessary to serve as a full-time firefighter. This model allows for a more inclusive entry point to fire and emergency services. In Cottage Grove's inaugural cadet program posting in 2025, CGFD received applications from over 80 qualified candidates.

Fire and EMS training, certification and licensure requirements have outpaced the ability to do the work on a limited or part-time basis. This is akin to what Minnesota witnessed with the "part-time" Police Officer license. The demands and evolution of law enforcement outpaced the ability to have part-time police officers. While the ability to do law enforcement or fire/EMS on a limited-part-time basis may have changed, the demand for volunteers to serve in emergencies and disasters has not. While this spirit of volunteerism may not have the same opportunities in the fire department as it once did, this volunteerism can be directed to other great opportunities the City of Cottage Grove offers. The city has a successful Police Reserve program that is a great place to volunteer and will continue to seek those that want to volunteer in a public safety setting.

A new opportunity that in the past would have fit the traditional volunteer firefighter role is the Community Emergency Response Team (CERT). CERT is a joint venture between Cottage Grove Emergency Management, the Police Department and Fire Department. CERT allows individuals to learn valuable skills such as basic first aid, light search and rescue and basic firefighting to allow them to serve in emergencies and disasters. This group can also be used to help the community better prepare for disasters through education and engagement. CERT is much more conducive to volunteers as its initial training course is 24 hours, requires 4-6 team meetings/trainings per year and does not require a high response or schedule requirement. There are also no high-demand certification requirements. The interest has been outstanding as the initial application period in Fall 2025 saw 53 people apply for membership for the inaugural Cottage Grove CERT. Volunteerism and the ability to give-back within emergency services may look different in Cottage Grove, the spirit remains and the ability to give-back within the Police

Reserve and CERT will offer individuals valuable opportunities that better align with today's societal demands.

While sunsetting the part-time firefighter program offers the best option, there is a significant shortage of part-time firefighters currently leading to a shift vacancy rate of 60 percent of hours that were intended to be covered by part-time firefighters. To help cover this shortage, CGFD recommends converting the open part-time positions and accompanying budgeted wages to a full-time position. There are approximately 3,500 hours left open by part-time vacancies. A full-time position would help cover 2,756 hours. Initiating an immediate part-time to full-time conversion will reduce the overtime burden and improve the reliability of daily staffing.

Standards of Cover Recommendation
Consider sun-setting the part-time staffing program.

Staff Recommendation
Sunset the Part-time Firefighter program. Retain current Part-time Firefighters and do not hire new Part-time Firefighters starting immediately. Convert open Part-time hours to a Full-time position as soon as possible, ideally by April 1st, 2026.

Policy Decision
Provide direction on Part-time Staffing Program. Authorize conversion of open part-time positions to a Full-time Firefighter

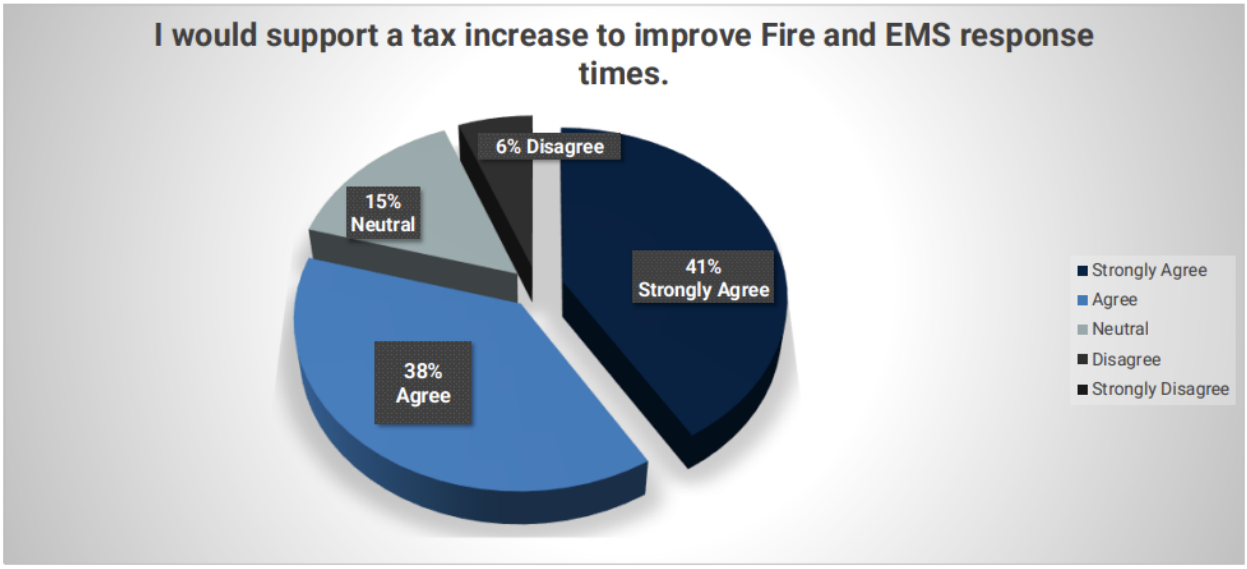
Survey Results

Residents of Cottage Grove see the high value of fire and EMS services, which cultivates a favorable environment to discuss spending needs. This value was demonstrated in the City-wide resident survey (Polco) in 2025 and among SOC feedback opportunities.

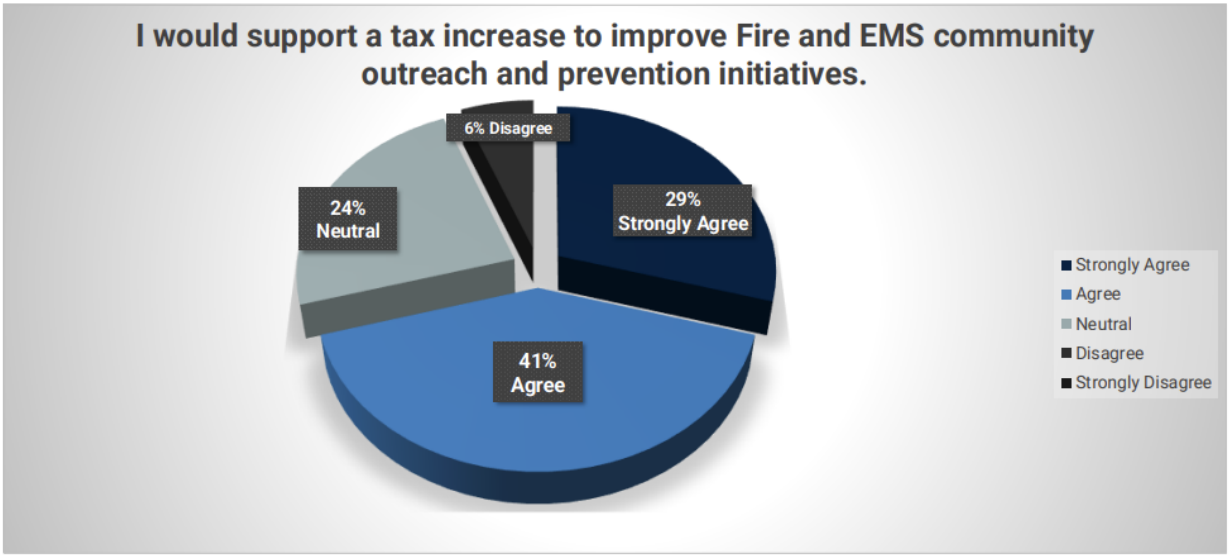
As part of the SOC study, the consultants gathered direct feedback from residents. The first method was collecting surveys from attendees of CGFD's open house in October 2025. Open house attendees were provided with a survey and returned the survey anonymously. Survey participants were asked to complete only one survey per household, and 34 surveys were returned from residents. Attendees were offered a survey; however, only resident results are discussed here.

92 percent of respondents expect fire/EMS to arrive within 8 minutes, while an additional 8 percent expected arrival within 8-12 minutes, which demonstrates a significant value placed on response times. 100 percent of respondents stated they "agree (18%)" or "strongly agree (82%)" CGFD should participate in community engagement and outreach events. 100 percent of respondents "agree (28%)" or "strongly agree (72%)" CGFD should provide fire and EMS prevention services to the community.

79 percent of Cottage Grove residents stated they would support tax increase to improve fire and EMS response times. 15 percent responded as neutral, while 6 percent disagreed. No one responded strongly disagreed.



Cottage Grove residents also indicated they would support tax increase for fire and EMS community outreach and prevention initiative. 70 percent agreed or strongly agreed with tax increases, while 24 percent were neutral, and 6 percent disagreed.



The second method to gather community input was through a focus group of interested parties within the community. The focus group was comprised of 12 people. Participants were from City commissions along with community members from local organizations such as the Cottage Grove Lions and Cottage Grove Area Chamber of Commerce.

The focus group supported tax increase to maintain and improve fire/EMS services, while understanding tax increases may be significant.

The sentiments in the SOC community feedback opportunities align with Cottage Grove's 2025 Polco results. When respondents were asked what level of priority fire/EMS services should receive in the next five years, 93 percent of respondents indicated fire/EMS should receive high or medium priority (68 percent high, 25 percent medium). Fire/EMS was only second to "utilities" (which includes drinking water) in which 97 percent of respondents ranked it as high or medium importance. Police services were a close third at 91 percent high/medium importance.

A strong plan will help support increased spending for CGFD to fund capital and staffing needs. To aid these funding increases, the Department of Homeland Security offers a grant opportunity through the Federal Emergency Management Agency (FEMA) Assistance to Firefighters (AFG) program. The FEMA AFG program offers a grant called the Staffing for Adequate Fire and Emergency Response (SAFER) grant. SAFER grants have been used for decades to help increase front-line firefighter staffing.

The SAFER grant has been key in helping departments increase staffing and has been a lifeline for Metro area departments as they transition from paid on-call/volunteer to combination or full-time staffed departments. The following Twin Cities suburban departments have received a SAFER grant since 2021 to increase full-time staffing:

Department	Award Amount	Award Date
City Of Shakopee	$2,632,889	9/25/2025
City Of Eden Prairie	$2,195,826	9/25/2025
City Of Hopkins	$1,459,383	9/25/2025
City Of Roseville	$3,930,038	9/25/2025
City Of Burnsville	$2,397,083	9/25/2025
City Of Maplewood, Minnesota	$1,595,245	9/25/2025
City of Bloomington	$6,942,948	9/23/2024
City of Lakeville	$5,561,853	9/23/2024
South Metro Fire Department	$3,361,761	9/23/2024
Lake Johanna Fire Department	$2,707,746	9/20/2023
City of St Louis Park	$1,076,290	9/1/2023
West Metro Fire Rescue District	$1,137,420	9/1/2023
Bloomington, City of	$6,271,738	9/21/2022
Inver Grove Heights, City of	$3,423,623	9/10/2021
Brooklyn Park, City of	$3,345,516	9/10/2021

SAFER grants are typically offered once per year. In the last few years, the SAFER grant has been available in late winter/early Spring with awards being announced in the Fall. The grant will cover the costs as follows:

Year 1: 75% Federal Share/25% Local Share
Year 2: 75% Federal Share/25% Local Share
Year 3: 35% Federal Share/65% Local Share

The federal share will cover a percentage of the total cost of wages, benefits and other required costs to the equivalent of a “year-one” firefighter. The grant will cover FLSA required overtime found in the 2912 schedule if CGFD transitions to that schedule. The grant will only cover firefighter positions added after the grant award and grants cannot be renewed to maintain staffing additions after year three. The SAFER grant is designed to make for a softer landing of tax increases to support adding firefighter positions.

The following tables demonstrate the financial impact of a SAFER grant. All costs are based upon 2026 average full-time wages and do not include COLA or wage increase year to year over the grant period. The table assumes scheduled overtime from a 2912 schedule. The “max award” reflects the “year-one” year firefighter cost and any overages above the amount is assumed by the local department which is included in local share column.

SAFER Grant Year 1 Financial Impact

Full-time Firefighter Adds	Total Cost	Max Award	Federal Share	Levy Impact (Local Share)
8	$1,366,656	$1,152,840	$922,272	$444,383
11	$1,862,171	$1,585,155	$1,268,124	$594,047
14	$2,357,687	$2,017,470	$1,613,976	$743,711

SAFER Grant Year 2 Financial Impact

Full-time Firefighter Adds	Total Cost	Max Award	Federal Share	Levy Impact (Local Share)
8	$1,366,656	$1,152,840	$922,272	$444,383
11	$1,862,171	$1,585,155	$1,268,124	$594,047
14	$2,357,687	$2,017,470	$1,613,976	$743,711

SAFER Grant Year 3 Financial Impact

Full-time Firefighter Adds	Total Cost	Max Award	Federal Share	Levy Impact (Local Share)
8	$1,366,656	$1,152,840	$454,171	$912,484
11	$1,862,171	$1,585,155	$624,455	$1,237,716
14	$2,357,687	$2,017,470	$794,761	$1,562,962

Year 4 Post SAFER Grant

Full-time Firefighter Adds	Levy Impact
8	$1,366,656
11	$1,862,171
14	$2,357,687

Total Federal Share Over 3 Years

Full-time Firefighter Adds	Total Grant Award
8	$2,298,715
11	$3,160,703
14	$4,022,713

SAFER grants are awarded based upon the impact they will have on improving fire ground staffing. Fire Departments must demonstrate that the added positions will improve compliance with NFPA 1710 requirements. The grant application must request enough firefighters to have a demonstrable effect on firefighting operations. Typically, the more firefighters that are requested, the higher chance of success in receiving a SAFER grant. Grant recipients must commit to keeping all added positions after the grant period.

Cottage Grove has some characteristics that make its application promising. The Fire Department has a NFPA 1710 compliance of zero percent which would help make it a high priority application assuming added firefighter positions will help improve this. Additionally, all firefighters are trained and certified as Firefighter II and EMT (or higher), which helps with the application.

SAFER grants are very competitive. CGFD would recommend it use a grant writer to write its application. There are several firms that write SAFER grants. A local department with a recent successful grant paid $12,000 for grant writing fees. It is recommended to plan for grant writing fees from $10,000 to $15,000.

Staff Recommendation
Apply for a SAFER grant for positions to meet the desired level of service. Hire grant writer to compose SAFER grant to help secure competitive grant.

Policy Decision
Authorize the Fire Department to apply for a SAFER grant. Authorize the Fire Department to hire a grant writer to compose SAFER grant.

DECEMBER 2025

COTTAGE GROVE, MN

DRAFT

STANDARDS OF COVER



Executive Summary

The Cottage Grove Fire Department completed a Community Risk Assessment and Standards of Cover (SOC) Study in 2025. The Standards of Cover (SOC) is defined by the Commission on Fire Accreditation International (CFAI) as the "adopted written policies and procedures that determine the distribution, concentration, and reliability of fixed and mobile response forces for fire, emergency medical services (EMS), hazardous materials, and other technical types of responses."

A comprehensive assessment of risks and demand was completed so that department leadership can adopt policies with the utmost confidence to meet community expectations with a high degree of transparency.

Stakeholder feedback was included as part of the process. Stakeholder feedback included citizen survey's along with presentations to a fire department focus group and the City of Cottage Grove's Public Services Commission.

The executive summary highlights the most substantive recommendations and alternatives for the department.

Overall, there are six main themes that were utilized to frame opportunities for improvement and a pathway forward that best aligned resource allocation to risks.

Once fully implemented, the citizens and visitors of the City of Cottage Grove would receive improved response capability and maintain or improve response time performance.

As the community continues to experience growth, the department should continually monitor the demands of the community. Planning should include the adoption of a plan for fleet replacement and staffing levels. The department should also identify a potential future fire station location site to meet increasing demands while maintaining adopted response time performance measures.

Collaboration with external stakeholders will be of paramount importance when addressing community needs.

Introducing outcome measures supporting performance metrics will assist with future decision making and growth management strategies over the next 5-year period.

Top SIX Priorities

1. Address current and future staffing needs by considering proposed policy options.
2. Adopt a fleet replacement plan that balances best practices with financial capacity.
3. Work collaboratively with other communities served to explore policy options to identify cost sharing strategies to address uncompensated care.
4. Improve Dispatch Time and Total Response Time data by better aligning with best practices.
5. Adopt a System of Measures for future action planning and decision making.
6. Remove Station 4 for future planning purposes and consider investing in land for a potential future station in the Southwest portion of the City.

Summary of Stakeholder Feedback

Overall Satisfaction and Expectations

- High satisfaction with Fire/EMS services: Nearly all respondents (100%) agreed or strongly agreed that they are satisfied with current Fire/EMS services.
- Strong expectations for prompt service: The majority expect emergency response within 4–8 minutes, with one-third expecting under 4 minutes.
- High value on outreach and prevention: Most participants strongly expect the department to engage in community outreach and provide prevention services.

Tax Support and Funding Priorities

- Conditional support for tax increases:
  - A majority would support a tax increase to improve response times (especially residents and users of services).
  - Slightly lower but still substantial support exists for funding prevention and outreach services.
- Service users show stronger support for funding increases, especially for response time improvements.

Regional Service and Cost Sharing Concerns

- Mutual aid limitations: Stakeholders recognize that neighboring communities cannot provide timely backup, reinforcing the need for adequate local staffing in Cottage Grove.
- Cost-sharing debates: There is concern about Cottage Grove residents subsidizing EMS services for neighboring communities. Stakeholders want a cost-sharing model that is fair—either all costs or marginal service costs.
- Willingness to reconsider external service provision: The majority agreed with a cost-sharing strategy that is fair and reasonable, but wanted to negotiation while continue to provide services as compared to discontinuing service provision.

Long-Term System Sustainability

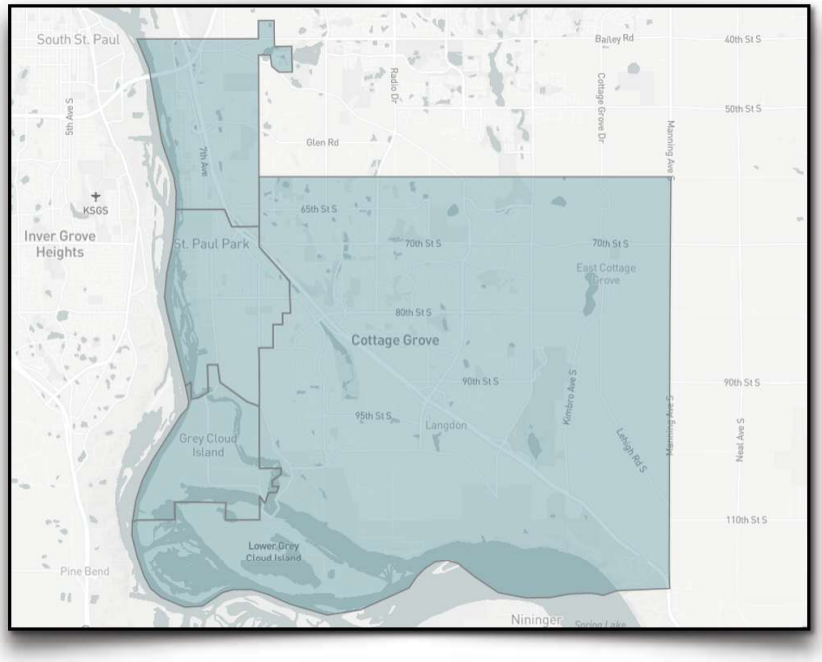
- Interest in regional collaboration models: Stakeholders are open to exploring formation of a multi-city EMS or Fire District (Cottage Grove, Newport, St. Paul Park, Grey Cloud Island) to ensure sustainable funding and shared responsibility.

Core Themes

1. Strong support and trust in local Fire/EMS services.
2. Desire for fast, reliable response times and continued public engagement.
3. Willingness to invest more—especially among residents and service users—if tied to tangible service improvements.
4. Concerns about financial equity and sustainability of providing EMS to neighboring communities.
5. Openness to structural reforms such as cost-sharing or regional fire/EMS districts.

Community Risk Assessment

To study the unique features of the City of Cottage Grove, the study utilized a comprehensive two-part documented and adopted methodology that organizes response areas into geographical planning zones. The first is by the department's entire response area. The second utilized a more gradual assessment of geographic fire demand zones (FDZ). These FDZs have specific resource allocation strategies based on calculated risks. From an emergency response standpoint, the response area is divided into four FDZs. The FDZs are not divided equally in terms of demographics and population density.



Socioeconomic and Demographic Risks

FDZs were utilized to assess each planning zone for risks that inform response time performance objectives. The risk assessment process utilized socioeconomic variables such as median household income and unemployment, as well as demographic variables such as population density and median age. Other variables considered included square mileage, community demand, call concurrency, and the percentage of homes greater than 55 years old.

Recommendation

The department should develop a more robust occupancy level data to include individual occupancy level risks into the overall risk matrices.

The department should continue to evaluate community risks and update the Standards of Cover (SOC) annually.

Variables of Risk

All variables measured at the FDZ level

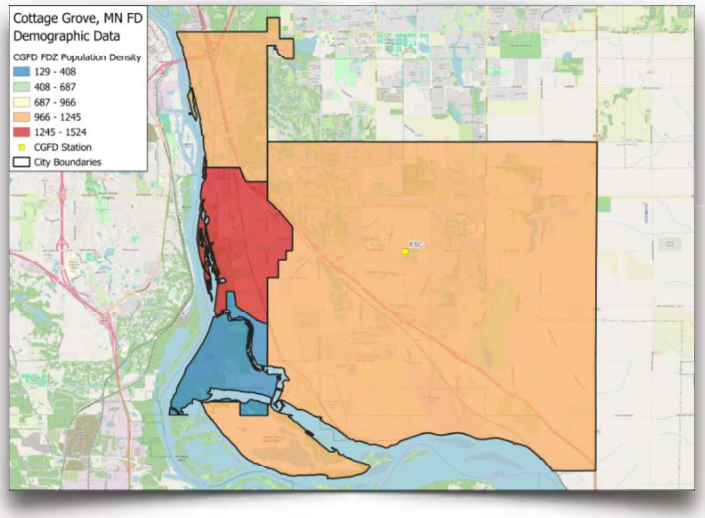
- Population density
- Square mileage of each FDZ
- Median age of residents
- Median household income
- Unemployment rate
- Percentage of homes greater than 55 years old
- Community demand
- Call concurrency

Economic and Demographic Assessment by FDZ

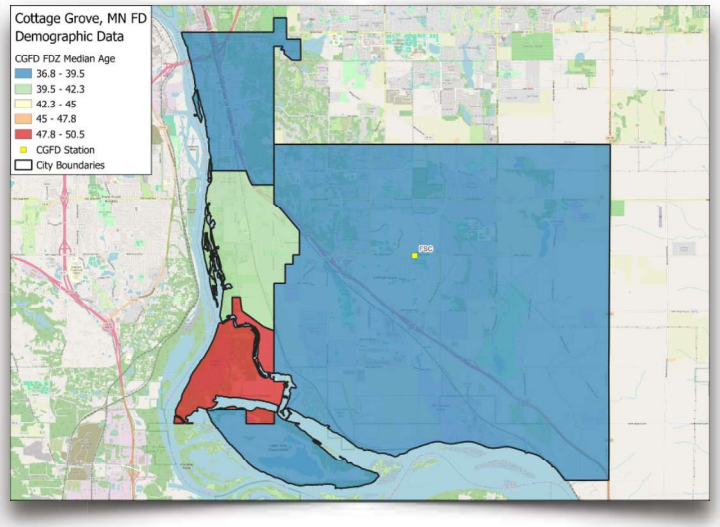
The population for each first due station was evaluated. Saint Paul Park has the highest population density within the response area. The lowest population density is in the upper part of the Township of Grey Cloud Island.

Recommendation

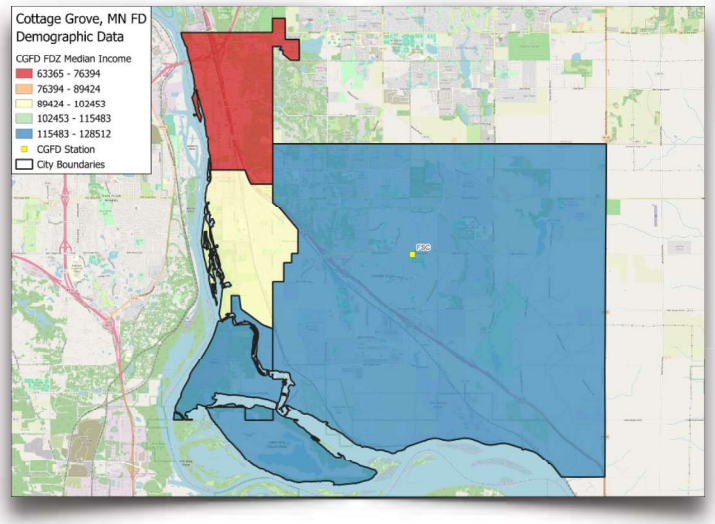
The department should continue to monitor socioeconomic and demographic variables correlated with changes in risk.



Research has demonstrated a relationship between age and use of EMS and fire services, or the events leading to the need for EMS and fire services, wherein use and need tend to be highest among older adults, as compared to those in younger age groups.



For Example, older adults (e.g., 65 years and older) or the elderly (e.g., 85 years and older) have been found to experience higher rates of burns, falls, fires, and fire-related injuries or death, and have higher rates of ambulance transport and use of EMS, in general. The elderly are also one of the most vulnerable groups during and following disasters such as hurricanes, tornadoes, and earthquakes.



Based on U.S. Census Bureau data for 2019-2023, adjusted for 2023 dollars, median household income for the CGFD jurisdiction, including the three additional EMS demand zones, was $113,718.95.

FDZ Level Risk

FDZs were assigned an overall risk level classification of low, moderate, high, or maximum based on the resulting value of the risk matrices.

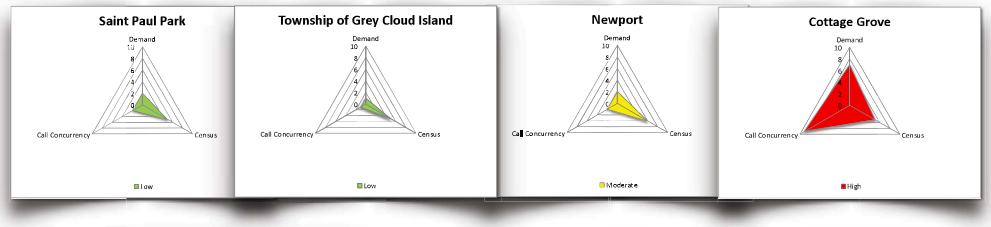
Ultimately, Cottage Grove was classified as a high-risk station (red) along with Lower Grey Cloud Island. Newport is classified as moderate-risk (yellow). Saint Paul Park and Township of Grey Cloud Island were classified as low-risk (green).

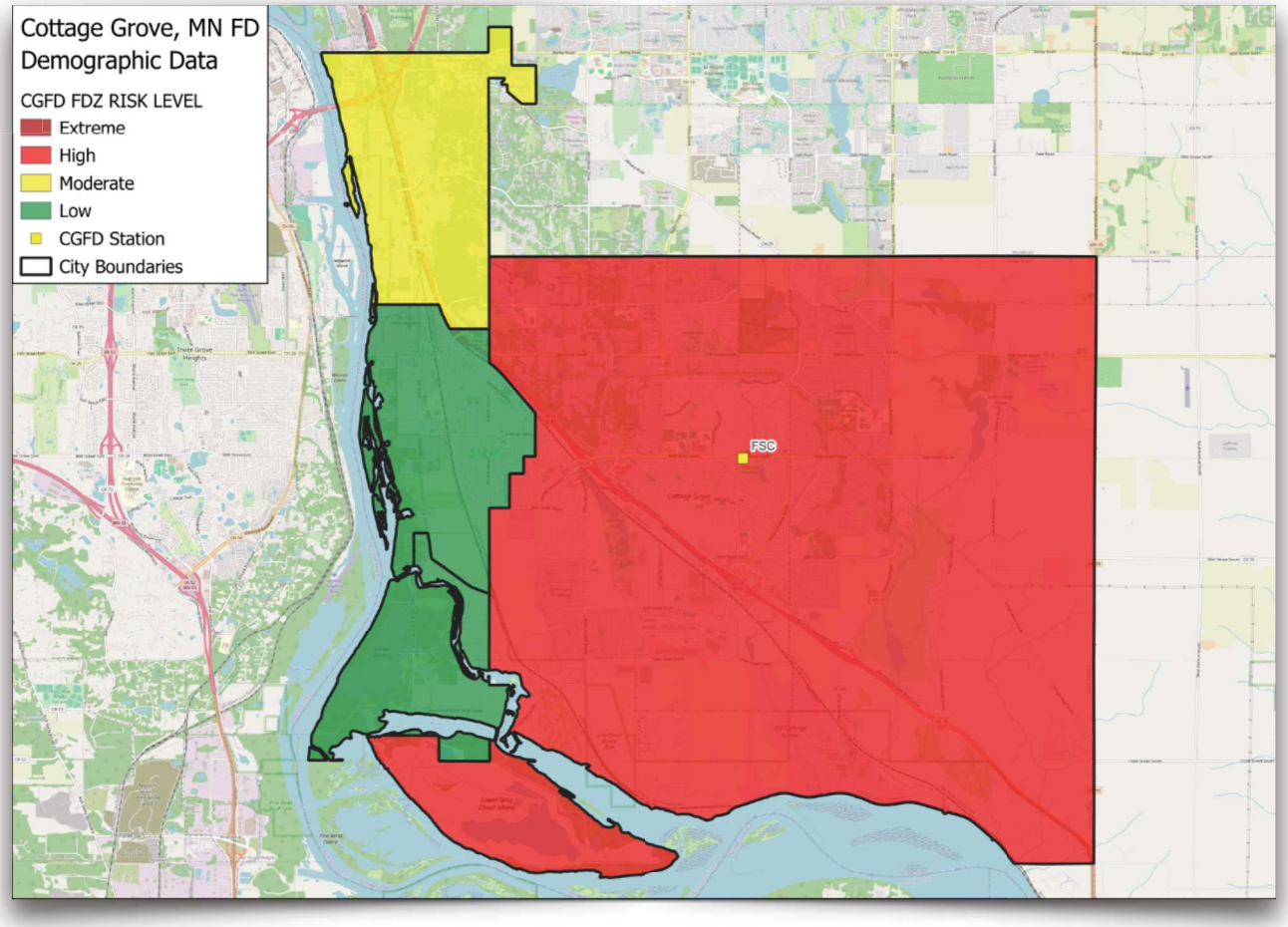
Finally, 3-dimensional models were created to evaluate each FDZs unique risk profile.

Recommendations

The department should develop a process to capture occupancy level risks (building level) and incorporate specific occupancy ratings into the overall risk assessment process and risk matrices.

The risk analysis aligns well with future deployment strategies discussed within this report.





Categorizing and Classifying Risk

We obtained data files from Cottage Grove Fire Department (CGFD) spanning January 1, 2022 through December 31, 2024. Based on the date range of data provided, the three most recent calendar years of data (i.e., 2022 through 2024) were utilized for baseline analysis in this report.

In coordination with department leadership, incident type values from the data file were classified into the program areas of EMS, fire, hazmat, and rescue.

Recommendation

The department is encouraged to consider outcome measures in the periodic reassessment of the risk categorization and classification process.

Program	Call Type	"Problem" Entry from CAD Data File[1]
EMS	Breathing Problem	yChoking-1
EMS	Breathing Problem	yChoking-3
EMS	Breathing Problem	yDifficulty Breathing
EMS	Cardiac and Stroke	yCardiac/Heart Problems-1
EMS	Cardiac and Stroke	yCardiac/Heart Problems-2
EMS	Cardiac and Stroke	yCardiac/Heart Problems-3
EMS	Cardiac and Stroke	
EMS	Cardiac and Stroke	
EMS	Cardiac and Stroke	
EMS	Cardiac and Stroke	
EMS	Cardiac and Stroke	
EMS	Cardiac and Stroke	
EMS	Fall and Injury	
EMS	Fall and Injury	
EMS	Fall and Injury

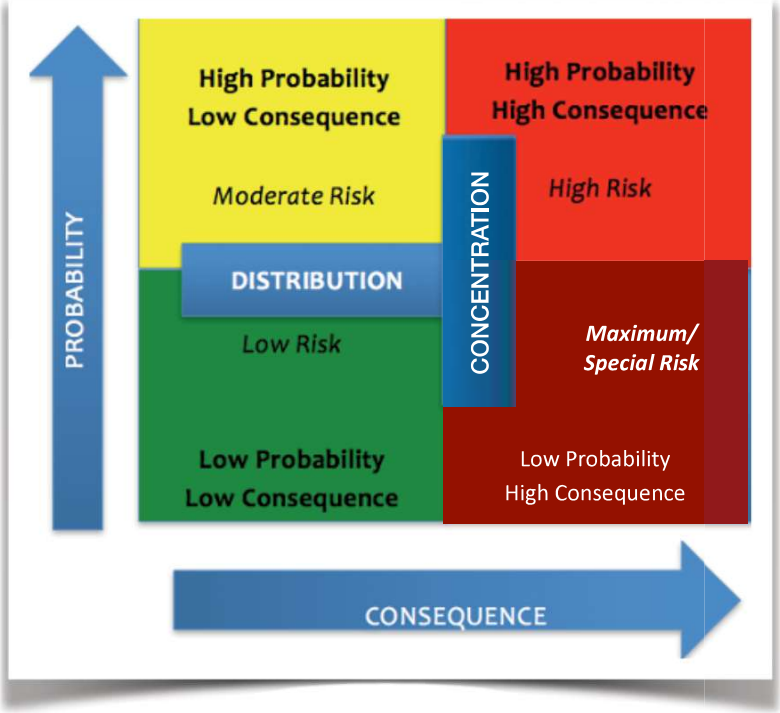
Correlated Risks

Risks may be divided into correlated and uncorrelated risks. All previous risk analyses have been primarily based on uncorrelated risks such as single unique events for EMS or a single property structure fire. Risks were calculated based on socioeconomic and demographic factors that may contribute to unique events. All previous analyses utilized a robust quantitative approach to leasing risk using a 3-axis, 3-dimensional Heron formula.

However, correlated risks occur with much less frequency and are generally assessed using a 2-dimensional probability and consequence model.

Recommendation

The department is encouraged to continue to annually review risk severities that are more appropriately defined by the two-dimensional risk assessment process.





Example of correlated risks would include more regional or system wide events such as natural hazards and pandemics. The following risks are provided within the Washington County Hazard Mitigation Plan.

Low Risk	Low Risk	Moderate Risk	High Risk
Pandemic	Wildfire	Flood	
Man-made Physical Disruption	Hazardous Materials Event	Power Outage	
Tornado	Extreme Temperatures	Man-made Technological Disruption	
Drought	Dam or Levee Failure	Blizzards, Ice, and Sleet	
Radiological Event	Water Supply Containment	Severe Thunderstorms	

Historical Service Demands

Historical service demands were classified by program area. The table below illustrates each identified call type by program area.

During the 2024 reporting period, community demand from all jurisdictions for CGFD services included calls related to the program areas of EMS (88.2%), fire (11.0%), hazardous materials (0.6%), and rescue (0.3%).

The communities made 4,607 requests for service across all programs during 2024, averaging 14.4 calls per day. The data is clear that the majority of the incidents (85%) originated within the Cottage Grove.

Therefore, only 15% of the incidents, or 708 calls were distributed across the neighboring jurisdictions. In terms of the average number of calls per day, only 2.1 calls per day could be contributed to any jurisdiction that the city served outside of the City of Cottage Grove.

Observations

EMS calls are 88.2% of the community requests for service.

Fire-related incidents accounted for 11.0% of the service requests.

Combined Hazmat and Rescue incidents were requested less than 1.0%.

Considering all calls, requests for service outside of the City of Cottage Grove averages 2.1 calls per day.

RMS/NFIRS Jurisdiction	CAD Program[1]	Number of Calls[2]	Number of Responses[3]	Average Responses per Call	Total Busy Hours	Average Busy Minutes per Response	Average Calls per Day	Average Responses per Day
All	EMS	4,036	4,425	1.1	2,958.3	40.1	11.0	12.1
	Fire	530	784	1.5	346.0	26.5	1.4	2.1
	Hazmat	28	43	1.5	16.1	22.4	0.1	0.1
	Rescue	13	19	1.5	5.5	17.3	< 0.1	0.1
	Total	**4,607**	**5,271**	**1.1**	**3,325.8**	**37.9**	**12.6**	**14.4**
Within CGFD[4]	EMS	3,435	3,796	1.1	2,645.9	41.8	9.4	10.4
	Fire	434	662	1.5	279.5	25.3	1.2	1.8
	Hazmat	23	38	1.7	14.9	23.5	0.1	0.1
	Rescue	7	12	1.7	2.2	10.9	< 0.1	< 0.1
	Total	**3,899**	**4,508**	**1.2**	**2,942.4**	**39.2**	**10.7**	**12.3**
Outside of CGFD	EMS	601	629	1.0	312.4	29.8	1.6	1.7
	Fire	96	122	1.3	66.6	32.7	0.3	0.3
	Hazmat	5	5	1.0	1.1	13.7	< 0.1	< 0.1
	Rescue	6	7	1.2	3.3	28.3	< 0.1	< 0.1
	Total	**708**	**763**	**1.1**	**383.4**	**30.2**	**1.9**	**2.1**

Historical Performance

The department understands the relative opportunity to improve the citizens' experience by maximizing the efficiency of the dispatch interval and turnout time. Dispatch Time is defined as the time from when the 911 center receives a request for service until the fire department is notified to respond. Turnout Time is the time between when the fire department is notified of a call (dispatch) and when they begin driving to the incident. In Cottage Grove's case, the department is notified of an incident, rather than an individual unit. The individual unit is placed on the incident when it goes enroute to the incident. This leaves the dispatch time capturing more than the dispatch processing time and likely includes a portion of the turnout time. A significant number of calls were removed from the analysis as their turnout time was 0, which is another indicator that the dispatch time encompasses more than the dispatch processing time. Moving to a unit dispatch process will help rectify this data alignment issue.

Recommendation

The department should better align Dispatch and Turnout Times with best practices.

Improving the Dispatch and Turnout Times has an excellent return on investment for improving the citizen's total response experience.

The National Fire Protection Association (NFPA) 1710 and 1225, recommend a 64- and 60- second dispatch time, respectively. The current performance is 4.3 minutes for all types of calls at the 90th percentile. Similarly, the NFPA and the Commission on Fire Accreditation International (CFAI), recommend a turnout time of 60-seconds for EMS incidents and between 80 and 90 seconds for non-EMS incidents, respectively. The department's current performance is at 2.9 minutes for EMS and 3.7 for fire-related incidents.

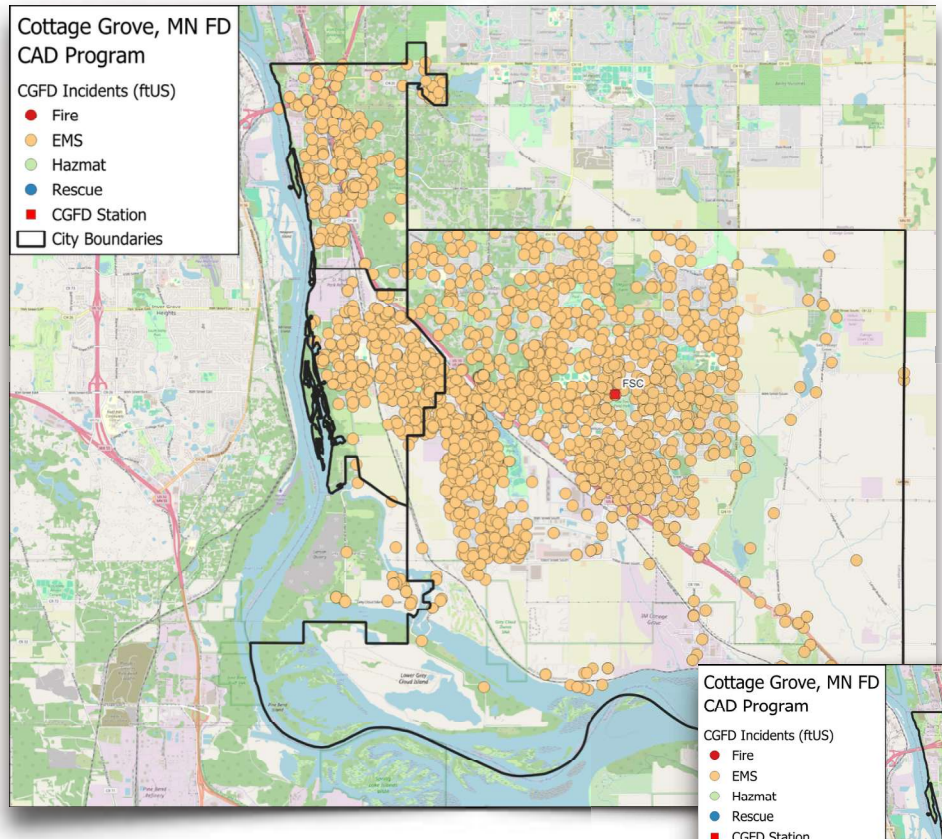
Travel Time is measured from when the apparatus and crews make notification that they are driving to the incident until they notify that they are on-scene. NFPA 1710 recommends a 4-minute travel time at the 90th percentile. CFAI had historically provided for a 5.2-minute travel time at the 90th percentile. However, the current performance of 9.3 minutes is reasonably well aligned with the national experience for departments with similar geographic challenges. Response Time is the total time from 911 receipt to arrival.

2024 90th Percentile Response Time Performance

CAD Program and RMS/NFIRS City[1]	Dispatch Time (Minutes)	Turnout Time (Minutes)	Travel Time (Minutes)	Response Time (Minutes)	Sample Size[2]
EMS	4.2	2.9	9.5	14.5	1,616
Cottage Grove	4.2	3.0	8.5	13.8	1,197
Newport	4.8	2.9	10.4	16.3	200
Saint Paul Park	3.6	2.8	11.5	15.2	196
Township of Grey Cloud Island	5.2	--	15.5	20.3	23
Fire	4.6	3.7	8.2	13.0	252
Hazmat	5.7	4.2	7.7	12.9	18
Rescue	--	--	--	--	3
Total Cottage Grove	4.3	3.2	8.4	13.7	1,470
Total All	4.3	3.1	9.3	14.3	1,889

Distribution Study

The distribution of incidents were geocoded and mapped to illustrate where incidents were distributed throughout the communities. As expected, the EMS incidents (below) were distributed across all of the service areas, with the least calls in the Township of Grey Cloud Island.



Observations:

Response times are variable across the jurisdictions within the EMS service area.

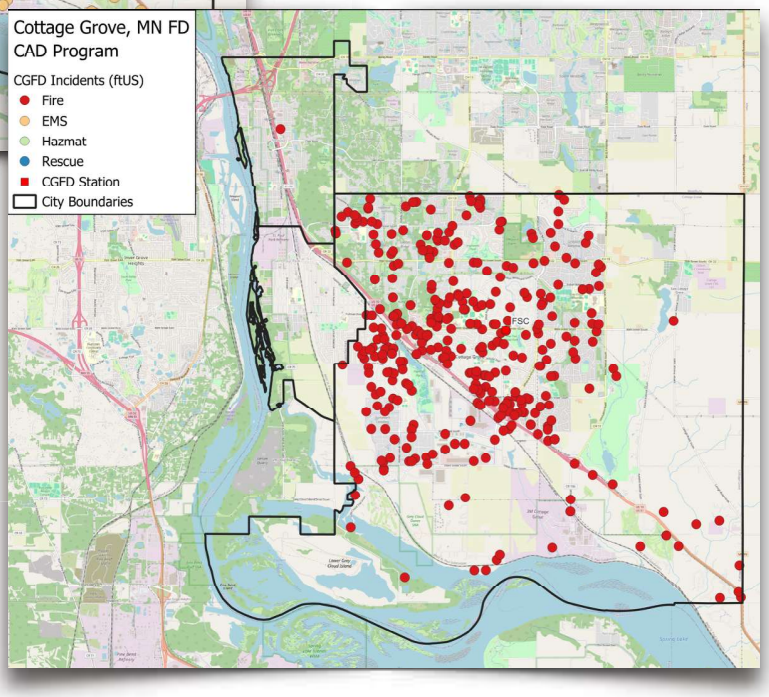
The maximum difference is calculated at 6.5 minutes between the shortest (Cottage Grove) response time and the longest (Grey Cloud Island).

Understanding that EMS services are provided from the centralized Cottage Grove station, these findings are to be expected and are not aberrent.

There is an opportunity to improve coverage to the EMS service areas by placing a necessary second ambulance within either St. Paul Park or Newport.

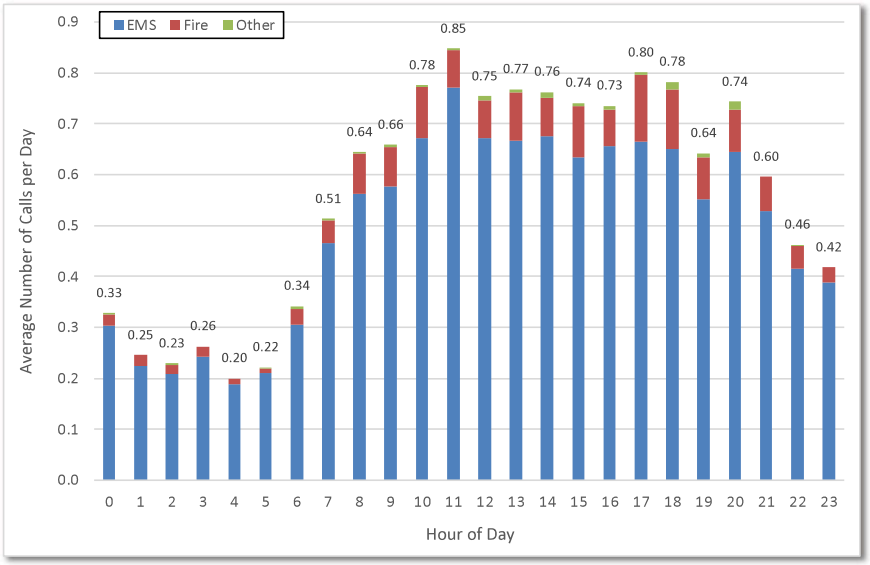
The concentration of fire incidents (right) follows an expected pattern where the majority of incidents occur within Cottage Grove and has limited occurrences in the neighboring jurisdictions.

Certainly the influence of primary EMS responsibilities within the neighboring communities is a key differentiator. However, at 11% of the requests for service, the frequency of fire related incidents is much less than for EMS (88.2%).



Concentration Study

The concentration of resources sufficient to respond to the frequency and duration of the community demand is utilized to evaluate the efficacy of the deployment strategy for the identified risk.



Observation

On average, the department runs approximately one call per hour throughout the peak period of the day.

The vast majority of all calls were for EMS.

Analyses reveal that the department has an average hourly demand of approximately 0.85 calls per hour during peak periods.

The vast majority of incidents both within and outside of Cottage Grove are for EMS incidents.

	RMS/NFIRS Jurisdiction[1]								
	Within CGFD			Outside of CGFD			All		
CAD Program and Call Type[2]	Number of Calls	Average Calls per Day	Call Percentage	Number of Calls	Average Calls per Day	Call Percentage	Number of Calls	Average Calls per Day	Call Percentage
EMS	**3,737**	**10.2**	**88.7**	**609**	**1.7**	**84.8**	**4,346**	**11.9**	**88.2**
Breathing Problem	338	0.9	8.0	48	0.1	6.7	386	1.1	7.8
Cardiac and Stroke	425	1.2	10.1	65	0.2	9.1	490	1.3	9.9
Fall and Injury	809	2.2	19.2	117	0.3	16.3	926	2.5	18.8
Illness and Other	1,681	4.6	39.9	225	0.6	31.3	1,906	5.2	38.7
Mutual Aid	4	< 0.1	0.1	43	0.1	6.0	47	0.1	1.0
MVA	177	0.5	4.2	73	0.2	10.2	250	0.7	5.1
Overdose and Psychiatric	62	0.2	1.5	4	< 0.1	0.6	66	0.2	1.3
Seizure and Unconsciousness	241	0.7	5.7	34	0.1	4.7	275	0.8	5.6
Fire	**444**	**1.2**	**10.5**	**98**	**0.3**	**13.6**	**542**	**1.5**	**11.0**
Brush Fire	5	< 0.1	0.1	1	< 0.1	0.1	6	< 0.1	0.1
Fire Alarm	224	0.6	5.3	21	0.1	2.9	245	0.7	5.0
Fire Other	63	0.2	1.5	6	< 0.1	0.8	69	0.2	1.4
Hazardous Condition	85	0.2	2.0	12	< 0.1	1.7	97	0.3	2.0
Mutual Aid	1	< 0.1	< 0.1	18	< 0.1	2.5	19	0.1	0.4
Outside Fire	18	< 0.1	0.4	0	0.0	0.0	18	< 0.1	0.4
Structure Fire	30	0.1	0.7	37	0.1	5.2	67	0.2	1.4
Vehicle Fire	18	< 0.1	0.4	3	< 0.1	0.4	21	0.1	0.4
Hazmat	**23**	**0.1**	**0.5**	**5**	**< 0.1**	**0.7**	**28**	**0.1**	**0.6**
Hazmat	23	0.1	0.5	5	< 0.1	0.7	28	0.1	0.6
Rescue	**8**	**< 0.1**	**0.2**	**6**	**< 0.1**	**0.8**	**14**	**< 0.1**	**0.3**
Rescue	8	< 0.1	0.2	6	< 0.1	0.8	14	< 0.1	0.3
Total	**4,212**	**11.5**	**100.0**	**718**	**2.0**	**100.0**	**4,930**	**13.5**	**100.0**

Assessing System Resiliency

Overlapped or simultaneous calls are defined as another call being received in a jurisdiction or demand zone while one or more calls are already ongoing for the same jurisdiction or demand zone. For example, if there is an ongoing call in CGFD's jurisdiction wherein all units have not yet been cleared, and one or more requests for service subsequently occur in CGFD's jurisdiction, the subsequent call or calls would be captured as overlapping.

CGFD experienced 39.9% overlapped calls across all jurisdictions during 2024, and 34.1% overlapped calls when considering only the calls that occurred within CGFD's jurisdiction (i.e., including the additional RMS/NFIRS city values for which CGFD is also first due for EMS calls).

RMS/NFIRS Jurisdiction	Overlapped Calls	Total Calls	Percentage of Overlapped Calls
All	1,966	4,930	39.9
Within CGFD	1,436	4,212	34.1

Observations

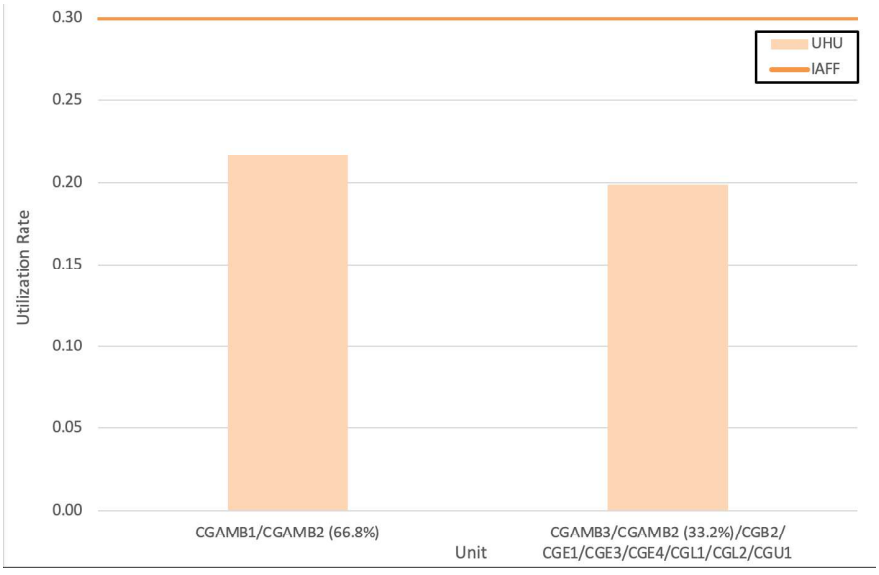
Within Cottage Grove, nearly 40% of the time when a call occurs, a second or great simultaneous event occurs before the first call has been completed.

A second resource is recommended after 30% call concurrency.

Once the primary ambulance crosses a 0.25 UHU, it is recommended that the City and Department invest in a second dedicated ambulance.

Unit Hour Utilization (UHU) is an objective measure of time on task for deployed resources. CGFD is as busy as other similarly sized departments that provide EMS, fire suppression, hazardous materials and technical rescue responses.

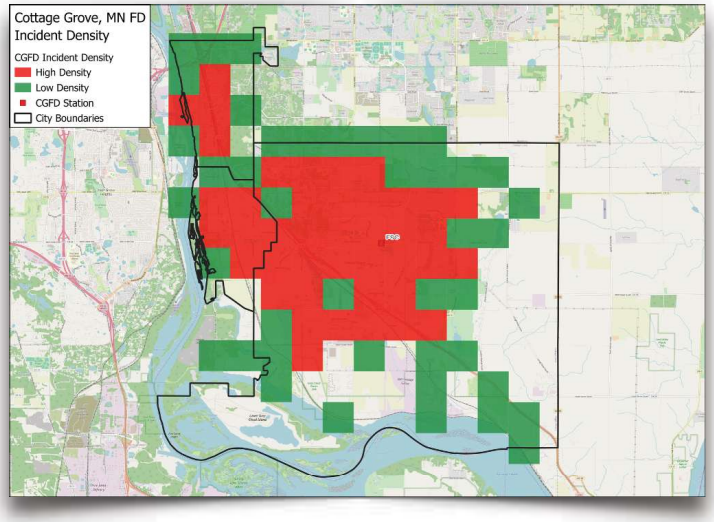
All units had UHU values < 0.30. Ambulance units CGAMB1/ CGAAMB2 had a UHU value of 0.22 and CGAMB3/CGAMB2 has a UHU of .20%. Due to the inconsistency in staffing strategies, work was distributed between units at 66.8% and 33.2%, respectively.



Unit ID	Total Busy Hours	UHU
CGAMB1/CGAMB2 (66.8%)[1]	1,899.7	0.22[2]
CGAMB3/CGAMB2 (33.2%)[1]/CGB2/CGE1/CGE3/CGE4/CGL1/CGL2/CGU1	1,238.1	0.20[2]

Commensurate Risk Model and Projected Growth

The call density analysis calculates the relative concentration of incidents based on approximately 0.5 geographic areas and at least half of the adjacent 0.5 grids. The assessment is based on call density and not population. The red areas are designated as high-density service areas and green areas are low-density.



Observations:

The commensurate risk assessment validates that the station is placed well and targets the areas with higher call densities.

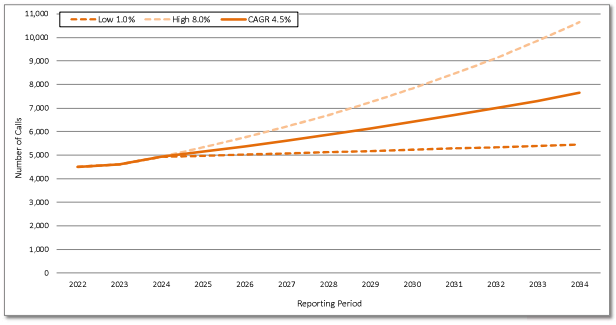
The greatest total population growth is projected to occur in Cottage Grove.

Calls are increasing by 4.5% per year.

Population growth projections were evaluated by each jurisdiction's 2040 Comprehensive Plan. The greatest growth by total population is projected to occur within Cottage Grove. While the greatest growth by percentage of total population is projected to occur in St. Paul Park, followed by Newport.

The population in Grey Cloud Island Township is projected slightly reduce over the same time period. Regardless, the total population growth outside of the City of Cottage Grove is projected to grow by 1,430 people by 2030 and 2,720 by 2040, while growth within the City of Cottage grove is expected to grow by 3,800 people by 2030 and 8,400 people by 2040.

Projected Population Growth:	2020	2030	2040
Cottage Grove	38,400	42,200	47,000
Newport	3,600	4,050	4,450
St. Paul Park	6,000	7,000	7,900
Grey Cloud Island Township	300	280	270



The available data set included three reporting periods of data, representing FY 2022-2024. Calls for services increased by an average growth rate of 4.5% per year.

The figure to the left depicts observed call volume during the last three-year reporting periods and various hypothetical growth scenarios through 2034.

Fire Station Location Study

Comprehensive analyses were completed regarding fire station locations for various travel time alternatives. These strategies provided the department with the greatest flexibility to transparently establish the desired service levels and plan for the investment to accomplish operational initiatives.

Analyses within this study have validated that the fire station location is reasonably well-aligned with risks.

The GIS report provided fire station location analyze that included configurations for all calls, for the following travel times: 4 minutes (NFPA 1710), 5 minutes (CFAI), and 6 minutes through 10 minute increments.

GIS analyses confirm that the current fire station location should be able to cover approximately 93.5% of all calls within Cottage Grove with an 8-minute travel time. Similarly, 93.5% of all calls within the entire EMS service area can be covered within 9-minutes travel time.

The GIS results are well aligned with the historical quantitative data.

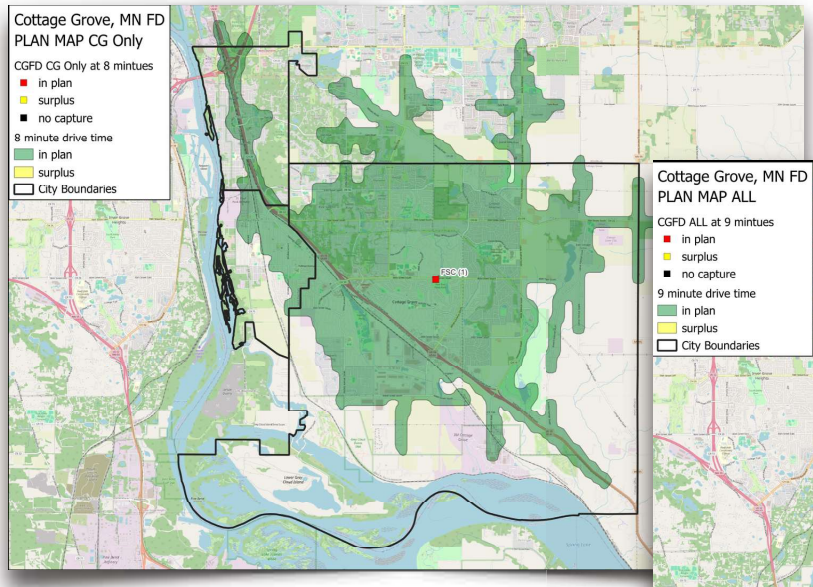
Observations:

The primary staffed station in Cottage Grove can cover 93.5% of all calls within Cottage Grove within an 8-minute travel time.

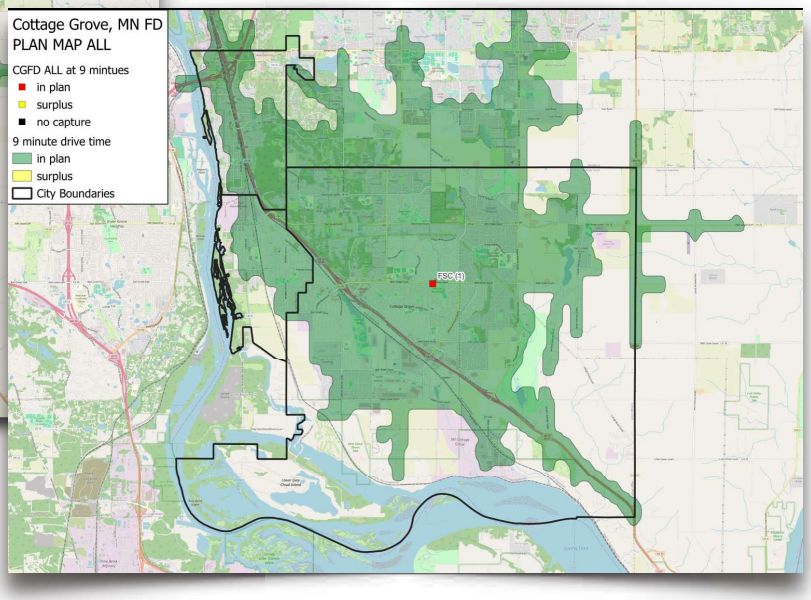
The staffed station in Cottage Grove can cover 93.5% of all calls within the entire EMS service area within 9-minutes travel time.

The GIS analyses are well-aligned with the historic quantitative data.

8-Minute Travel Time in Cottage Grove



9-Minute Travel Time All EMS Service Area

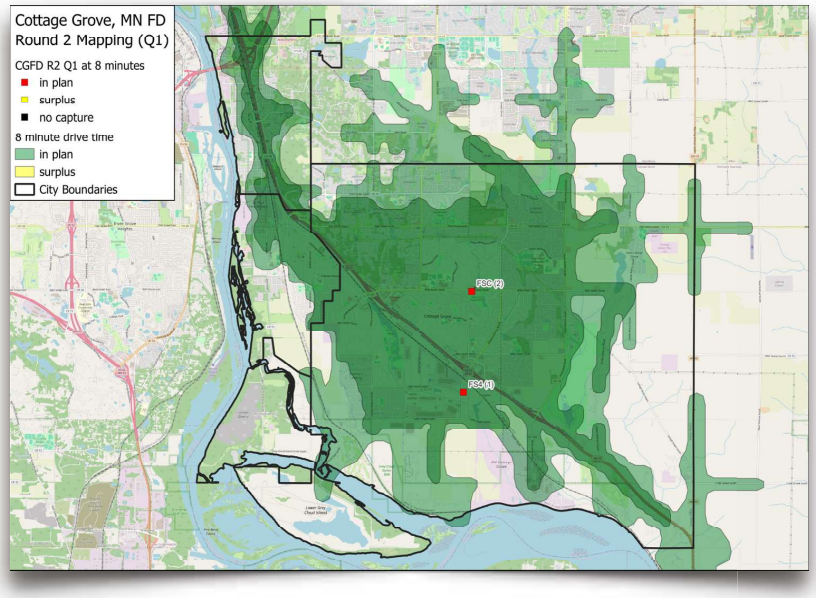


Analyses for a Two-Station Alternative

Efficacy of Station 4 Location

An assessment of an 8-minute travel time found that with two stations can cover approximately 92% of the incidents in all of the EMS service areas. While the analysis demonstrates that Station 4 is in a good location to cover Cottage Grove and/or the EMS service area, it is 96% duplicative of the primary staffed station in Cottage Grove. In other words, the City could elect to utilize either location, but both locations would provide limited return on investment. Given the excellent conditions of the primary station, there may be little justification for switching station locations and building a new station at the Station 4 location.

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FS4	8	3,708	3,708	88.10%
2	FSC	8	177	3,885	92.30%



Therefore, a hypothetical location was proposed and tested for the efficacy of the consideration. It is recommended that the city consider exploring available property in the southwest that can provide a more robust response to the areas with future development. The city should consider purchasing land in preparation and then building a station when needed.

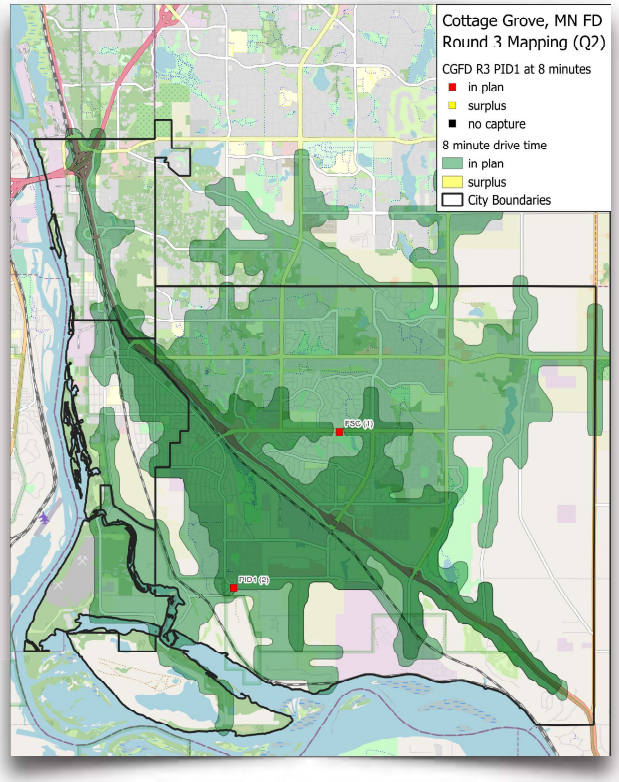
Recommendation

-Remove Station 4 from future deployment conversations.

-Consider exploring available property in the southwest area of Cottage Grove to plan for potential future development.

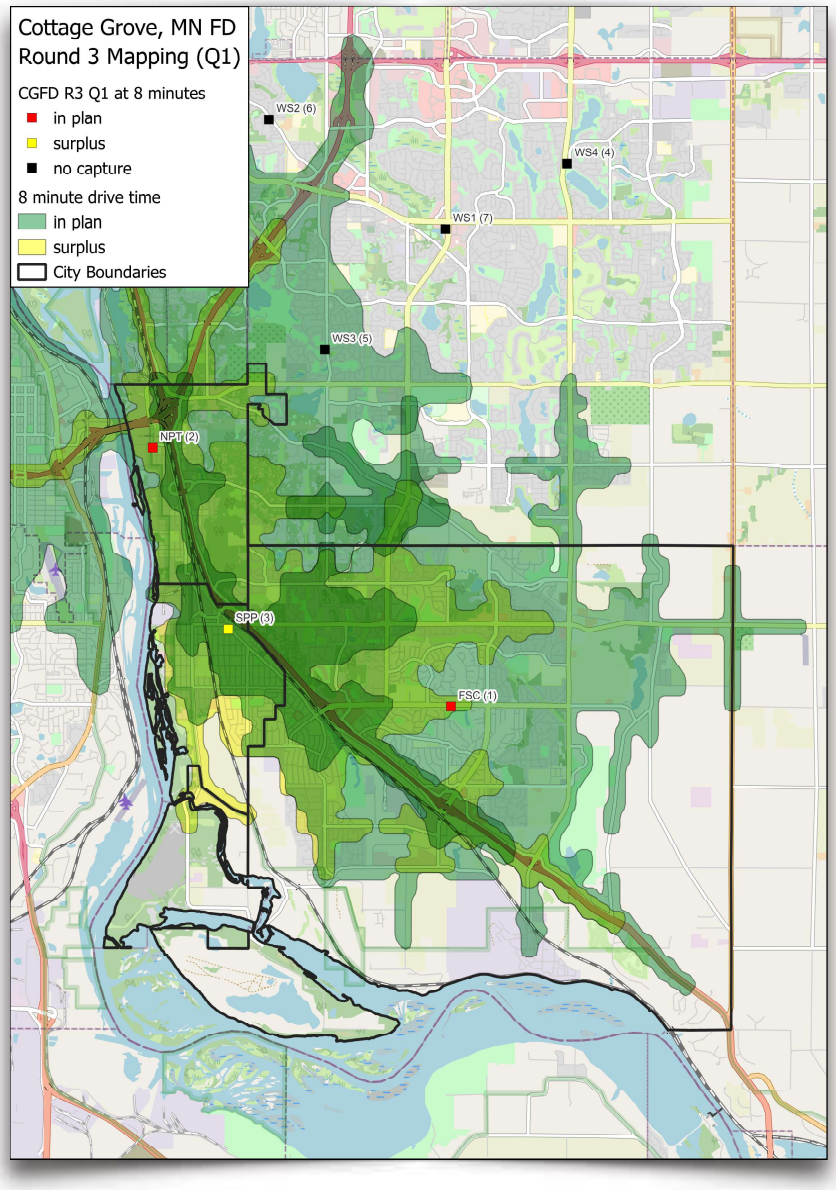
2nd Station for Future Development

While the Station 4 location was found to be highly duplicative of the current centralized station, future development in the southwest of the city may need a station that has an increased capability of covering the new development areas (below).



Efficacy of a Multi-jurisdictional Approach

Analyses were completed to explore the efficacy of the utilization of any of the regional station locations.



Recommendation

If the city elects to staff a second ambulance as this study has suggested, then placing it in Newport or St. Paul Park would improve response time by approximately one minute to the areas outside of Cottage Grove.

For consistency, an 8-minute travel time was reviewed and found that approximately 93% of the incidents in all of the EMS service areas.

In this assessment, and consistent with previous analyses, the central staffed station in Cottage Grove can cover 85% of the calls in the entire of the EMS service area.

However, if an ambulance was staffed in Newport, the coverage for all of the EMS area would improve by approximately 1 minute in areas outside of Cottage Grove and would bring coverage to 93%.

In other words, if the city elects to staff a second ambulance as suggested in this report, then placing that second ambulance at Newport would improve overall response time to the partners outside of Cottage Grove.

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	8	3,598	3,598	85.48%
2	NPT	8	331	3,929	93.35%
3	SPP	8	64	3,993	94.87%
4	WS4	8	0	3,993	94.87%

Assessment of the Current Deployment

The Cottage Grove Fire Department's deployment is very lean. In general, the department's current deployment has a target of four personnel per day which equates to one dedicated ambulance and one fire engine cross-staffing a second ambulance. It is understood that the department has had an adopted plan to improve the deployment to a minimum staffing of six personnel per day. A minimum staffing of six personnel per day will allow a deployment on 2 dedicated ambulances and a dedicated fire engine with the option of cross-staffing a third ambulance. While still lean, this is the recommended deployment strategy for the department.

However, due to the relatively lean deployment, outside agencies have had to send ambulances to Cottage Grove and the rest of the EMS Area to cover 631 EMS calls, or 16.9% of the unique incidents in 2024. Woodbury provided the greatest coverage for both Cottage Grove and the EMS Area followed by M Health. In all instances, the greatest need for coverage was within the City of Cottage Grove's jurisdiction.

Policy makers can adopt an acceptable threshold for relying on automatic or mutual-aid coverage within the EMS Area. However, when considering the risks, several salient considerations arise. First, the response times from the automatic/mutual-aid agencies are beyond the system design of an 8-minute travel time, and those mutual-aid response times from M Health and Woodbury are not included in the data analysis within this study. Second, this may equate to up to 17% lost revenue on transports that Cottage Grove was unable to complete. Third, there may be political and fiscal sensitivity to cost-sharing for EMS services when outside agencies may be providing the service at levels that are equivalent to the fire department's performance.

The deployment strategy of two dedicated ambulances plus a fire suppression crew that can deploy a third ambulance if needed, will provide sufficient depth of resources to reduce the need for outside assistance.

Calls by Agency Area	Cottage Grove	Newport	St. Paul Park	Township of Grey Cloud Island	Total
M Health	104	21	17	2	**144**
Woodbury Fire					
Amb 1	105	28	17	1	**151**
Amb 3	225	45	46	4	**320**
Amb 4	9	4	3	0	**16**
Total	**443**	**98**	**83**	**7**	**631**

Assessment of the Current Deployment

Community demand for all hazards (Fire, EMS, Hazmat, Rescue) was evaluated to assess the efficacy of the current fire department deployment and resource allocation. As previously identified, emergency medical services accounts for the majority of the total requests for service (~88%). Analyses were completed to ensure an optimized deployment strategy while accounting for the unique conditions within the response areas.

Calls within Cottage Grove

The allocation of resources is sufficient when considering the combined impact of the geographic constraints, the average hourly demand for services, and the average duration of each incident.

However, the department needs to ensure that two units (a minimum of four personnel) are utilized as the minimum staffing each day. Any configuration that is less than two units is insufficient. While it is always a policy choice regarding how much risk and the city is willing to assume, the impacts of under resourcing the needed deployment will result in workloads that exceed the recommendations for safe operations, the inability to respond to simultaneous events that currently occur on 34% of all incidents, longer response times as neighboring agencies have to respond into the city, and lost revenues.

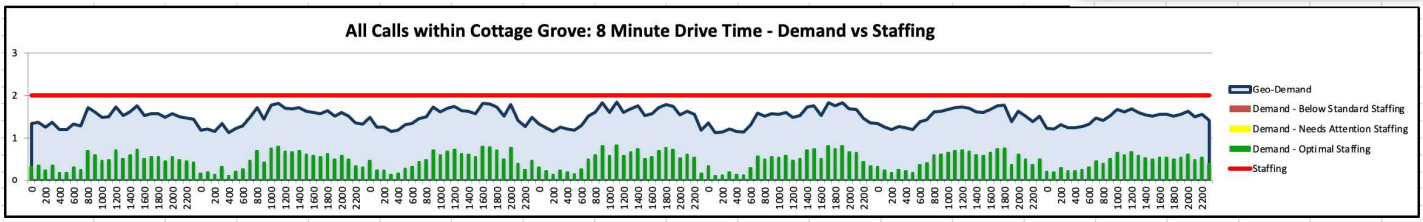
The staffing to demand analysis below demonstrates that the staffing line (red) is above the combined hourly call demand, time on task, and the geographic requirements (blue line).

Recommendation

The department should establish the minimum daily deployment at two staffed resources 24 hours per day and 7 days a week.

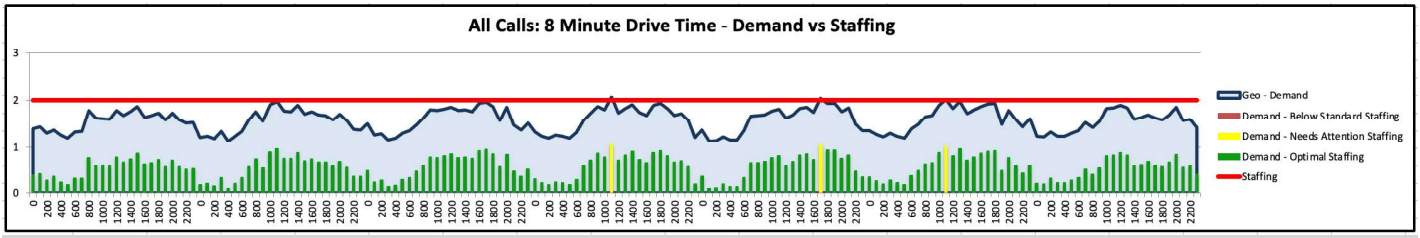
The recommended resource allocation of a minimum of two units is also sufficient to absorb all work introduced by neighboring communities.

In other words, there is no need for additional investment beyond what is required to respond to Cottage Groves demands for service.



Calls in All Jurisdictions including Cottage Grove

Additionally, the analysis was replicated to evaluate the added demand for services that comes from responding to neighboring communities. The recommended resource allocation of a minimum of two units is also sufficient to absorb all work introduced by neighboring communities. In other words, there is no need for additional investment beyond what is required to respond to Cottage Groves demands for service.



Managing Future Growth in Call Volume

The annual call volume has been increasing at an annualized average growth rate of 4.5%. Therefore, the impact of a compounding increased demand was utilized to project the threshold when it would be recommended to invest in a 2nd dedicated staffed ambulance.

The assumption utilized is that the growth in community demand would remain consistent over the next five years. This straight line projection estimates that the city and department should deploy a second staffed ambulance within the next four years. The staffing to demand analysis below demonstrates that the peak periods of the day will be challenged to continue to maintain performance expectations.

In addition, the first dedicated ambulance with have a UHU value that exceeds the recommended upper threshold of 30%. Therefore, there are two data-driven threshold tests that validate the need for reinvestment in the system.

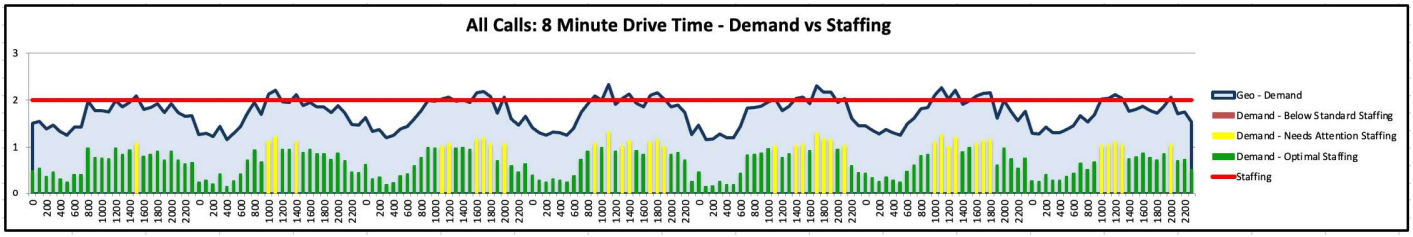
The staffing to demand analysis below demonstrates that the staffing line (red) is below the combined hourly call demand, time on task, and the geographic requirements (blue line) during the peak periods of each day.

Recommendation

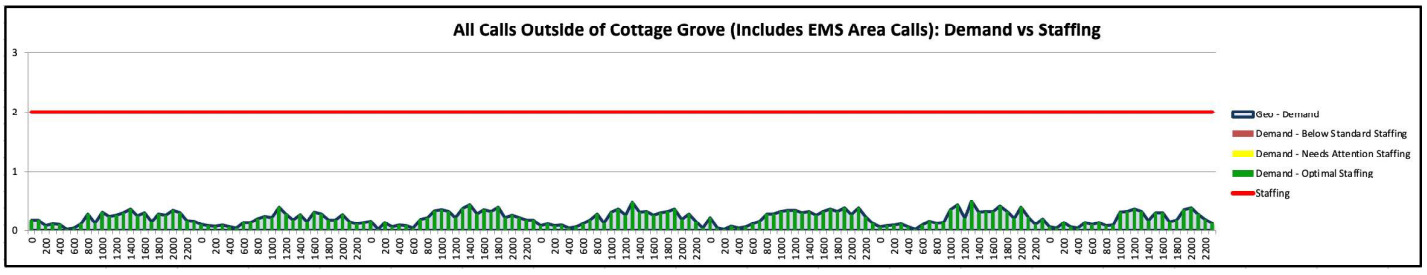
The department should plan for the implementation of a 2nd dedicated ambulance unit for the daily minimum deployment.

It is recommended that this is implemented within the next four years.

The recommendation is that the city introduces a peak 12-hour unit during the day 7 days a week intended to provided sufficient depth of resources to maintain response expectations, reduce workload on the 24 hour resources, and reintroduce readiness capacity for fire suppression services within the City of Cottage Grove.



Additionally, an assessment of the impact of growth in the neighboring communities (outside of Cottage Grove) demonstrates that the growth in these areas have much less of an impact on the need for reinvestment. In other words, since 85% of all calls occur within Cottage Grove, the increased call volume is disproportionately increasing within the Cottage Grove. The collective demand in all areas outside of Cottage Grove is much less impactful.



Evaluation of Service Level Mix

Service Mix refers to the specific types and service levels billed to payers for ambulance services. Levels of service are distinguished by the complexity of medical interventions provided and the specific situations in which they are used. Each level of service has a Healthcare Common Procedure Code (HCPS), which is maintained and defined by the Centers for Medicare and Medicaid Services (CMS) in collaboration with other organizations. A list of these is provided in the table below. It is important to note that not every ambulance service provides every level of service.

HCPCS Codes	Healthcare Common Procedure Coding System Code Description
A0426	Advanced Life Support, Non-Emergency Transport, Level 1 (ALS 1)
A0427	Advanced Life Support, Emergency Transport, Level 1 (ALS 1 - Emergency)
A0428	Basic Life Support, Non-Emergency Transport (BLS)
A0429	Basic Life Support, Emergency Transport (BLS-Emergency)
A0433	Advanced Life Support, Level 2 (ALS 2)
A0434	Specialty Care Transport (SCT)
A0998	Ambulance Response and Treatment, No Transport

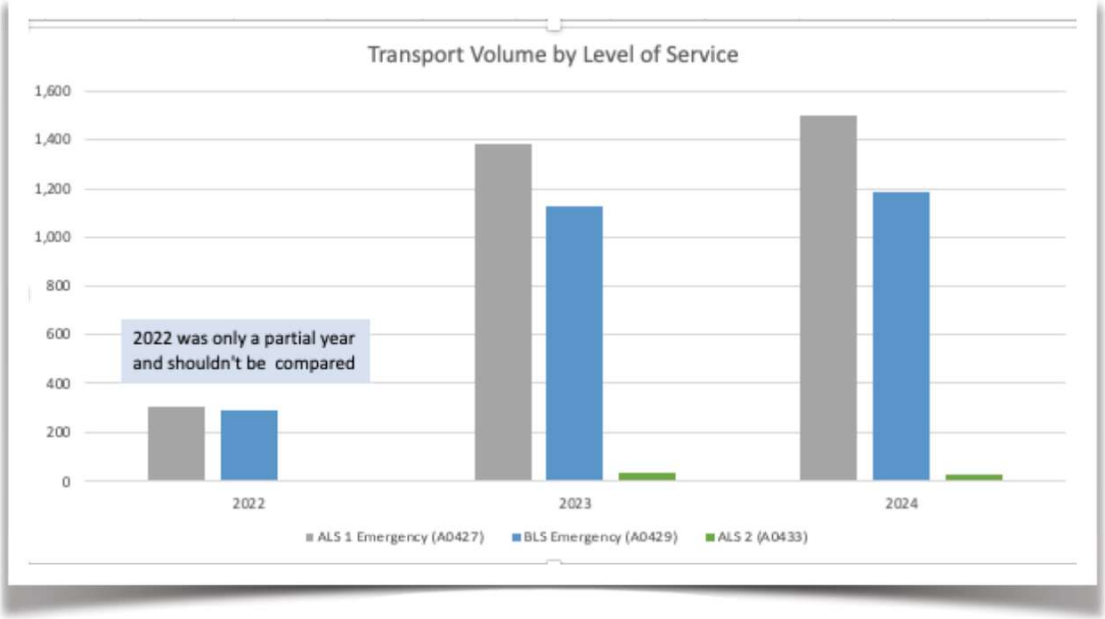
Observations

Of the emergency incidents, ALS 1 was the most frequently categorized level of service.

The frequency of incidents categorized as ALS 1 were higher than BLS-E incidents.

ALS-2 is well aligned with the national experience.

CMS defines an Emergency response as a BLS or ALS level of service that has been provided in immediate response to a 911 call, and an immediate response is defined as one where the ambulance service begins as quickly as possible to take the steps necessary to respond to the call.



The service mix analysis for all transported was provided by the billing company utilized by Cottage Grove. Of the emergency incidents, ALS-1 was the most frequently categorized level of service. As expected in an ALS system design, it is higher than the BLS-E incidents. The ALS-2 transports are well aligned with the national experience.

Estimated Charges and Collections

Estimated System Gross & Net Charges vs Net Collections

An industry best practice is to examine and compare the rates of similar-sized EMS services throughout the state to current rates annually. This ensures rates are sufficiently above Medicare to collect the maximum amount commercial payors allow. *FITCH* utilized the actual experience provided by the billing company utilized by Cottage Grove to summarize the average gross and net charges, and the net collection rates between 2022 - 2024.

The average net cash per trip was $743.53. The average gross charge per trip was $2,428 with a net charge of $1,153. This demonstrates a limited association between rates charged for service and actual received net collections. Generally, once an agency has the rates set at 325% of Medicare allowable values, the net collections per transport do not exhibit a meaningful linear relationship.

The total net collections (revenue) available to the Cottage Grove EMS system is estimated at $1.9m.

The Average Days in Accounts Receivable or “Days in A/R” is the average time it takes for a service to receive payment from a responsible party. This metric describes insurance payments and patient payments. Agencies need to know how to calculate days in A/R to quantify the efficiency of their billing operations. The recommendation is to outperform the industry average of fewer than 90 days with a goal of 30 days.

Observations

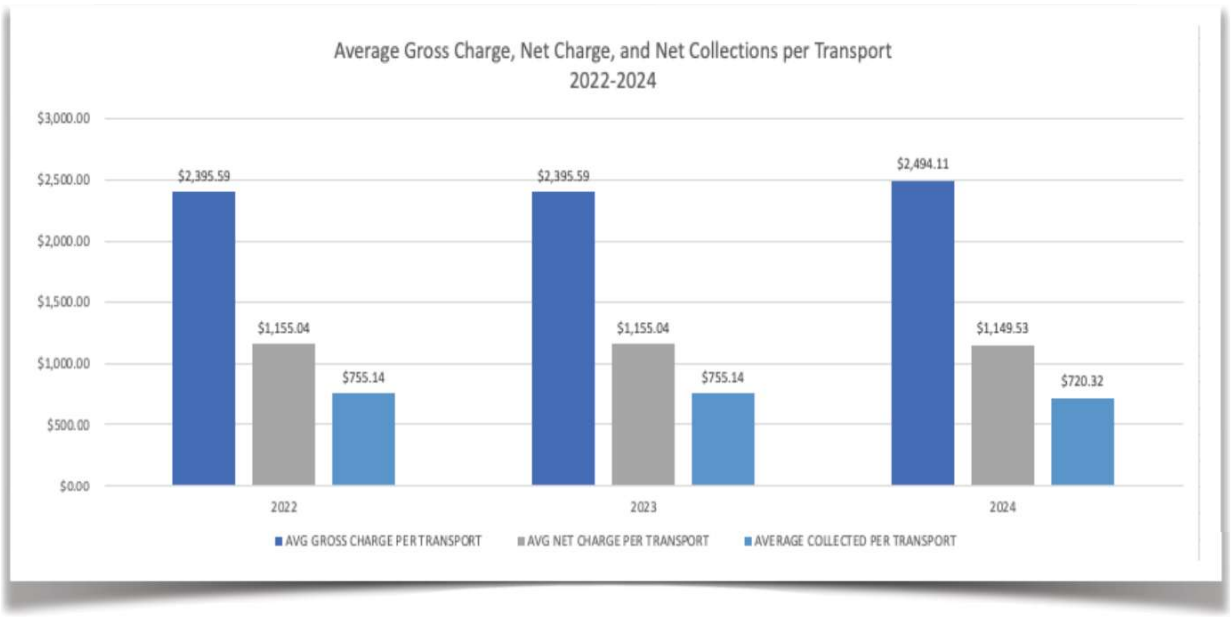
The average net cash per trip was estimated at $743.53.

The average gross charge per trip was $2,428, with a net charge of $1,153.

Demonstrates a limited association between rates charged for service and actual net collections.

The total net revenue is approximately $1.9m per year.

The goal for the average number of days in AR should be between 30 and 90 days.



As of June 2025, 69.3% of the AR was 90 days or less.

Within the same timeframe, 44% of the patient billing had an AR of 30 days or less.

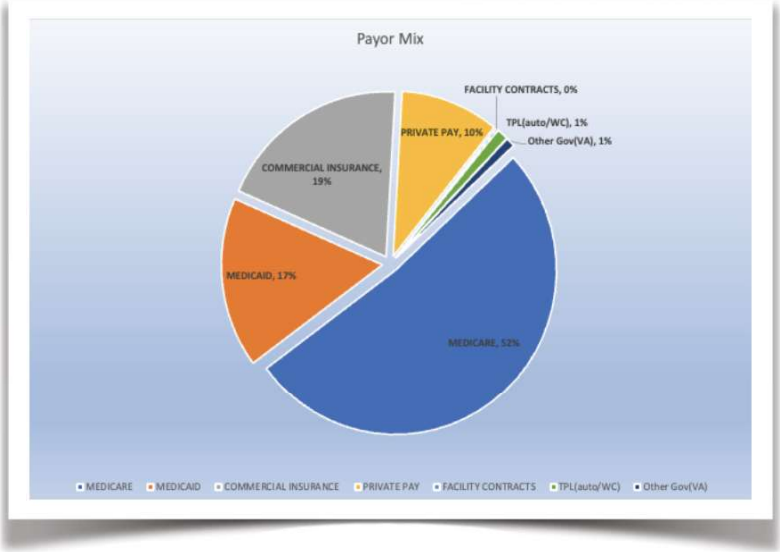
Evaluation of Payor Mix and Net Collections

The number of transports for each payor class was compared to the actual net revenue from each payor class. Transport revenues are a product of the volume of transports within the service area, the rates charged for these transports, and the revenues received for these services. This analysis was completed utilizing the actual data provided by the City's finance department and billing contractor.

Recommendation

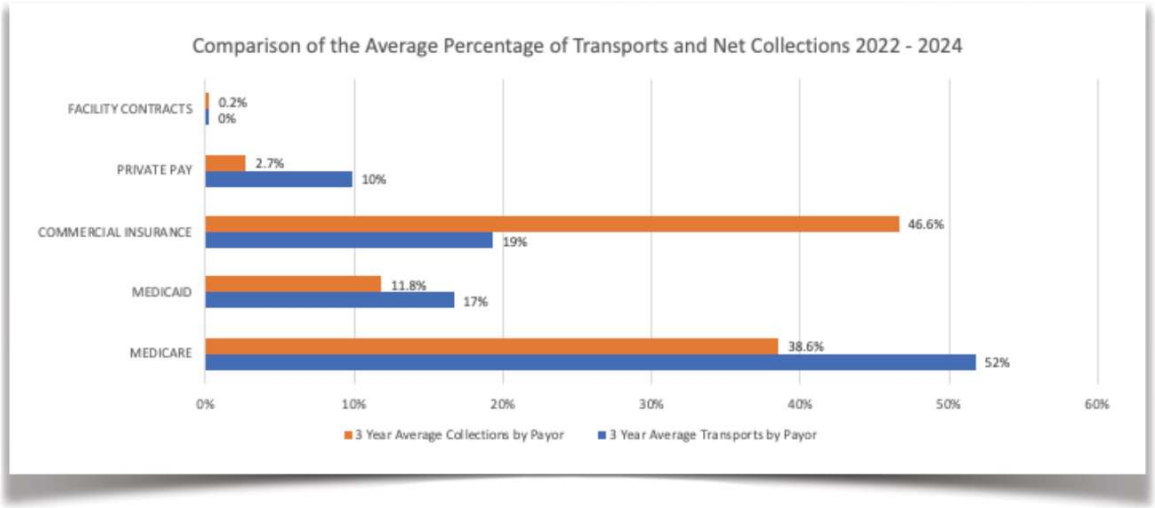
The agency should continue refining fees for ambulance services to align with industry best practices.

The largest payor class by transport volume is Medicare (52%); followed by Medicaid (17%); and Commercial Insurance (19%). Private Pay was 10% and Facility Contracts accounted for a negligible number of transports.



The average collections did not demonstrate a commensurate relationship to the transport volume. For example, while Medicare had the highest transport volume (52%), the percentage of net collections was closer to 39%. Conversely, Commercial Insurance had 19% of the transports but contributed nearly 47% of the revenue. Private pay accounted for a small fraction of the revenue 3% while contributing 10% of the transport volume. Medicaid had 17% of transports and 11% of the revenue.

However, the capitated revenue structures in pre-hospital care will eventually create a very weak association, if any, between increased rates and increased revenues.



Therefore, the agency is encouraged to continue refining fees for ambulance service to align with industry best practices, which is currently at 325% of the Medicare/ Medicaid allowable rates.

Estimated Costs for Ambulance Service

Personnel costs were estimated based on actual newer employees (2025-Step A) based on the existing labor agreement. The salary for EMT was $77,333 and paramedic was $82,680. It is understood that the administrative capacity is subject to greater flexibility on policy desires. However, ambulance staffing has less flexibility if the adopted performance objectives are intended to be met with fidelity.

CGFD deploys on 24-hour shifts on a 53 hour workweek for 911 ambulance personnel. Therefore, there should be no inherent OT based on the schedule within the Fair Labor Standards Act (FLSA) 7k Exemption for firefighters.

Finally, staffing multipliers were utilized to cover the average employee leave. In this manner, average leave or less would be accounted for with existing personnel, while above-average leave would utilize OT to fill vacancies.

As stand alone EMS resources are added, the cost allocation methodology may need to be revisited.

Observations

Utilizing 1.5 units for EMS demand suggests that CGFD may require some subsidy or cost sharing.

Direct labor accounts for field staff required to operate the ambulance.

Cost allocation methodology may need to be reviewed as additional resources are provided.

Shift Assigned EMS Personnel

Position	Hourly Rate	Scheduled Hours	Scheduled OT Hours	Salary w/ Scheduled OT	Fringe	Total Compensation	Staffing Multiplier
EMT	$28	2,756	0	$77,168	44%	$111,122	3.72
Paramedic	$30	2,756	0	$82,680	44%	$119,059	3.72
Total Per Unit Personnel Costs						**$856,274**	
Total Field Personnel Costs for 1.5 Ambulances						**$1,431,727**	

A high-level estimate of direct and indirect costs against revenues would suggest that the EMS enterprise fund would have a deficit spend. This estimate utilized 1.5 units of actual personnel costs and actual overhead expenses for administration charges, depreciation, commodities, contractual requirements and administrative staff costs (Deputy Fire Chief, 0.9 FTE Administrative Assistant).

Budget Description	Value in Dollars (1.5 Units)
Revenue (Transports Only)	$1,962,438
Direct Labor (Field plus Fringe)	$1,431,727
Overhead, Materials, and Depreciation	$1,146,596
Total Expenditures	$2,578,323
Net Revenue (income/(loss))	($615,885)

Efficacy of Response Time Objectives

A sensitivity to response time has long been a primary driver of EMS system design and resourcing. The prevailing result is an institutional belief that faster is better, where patient outcomes positively correlate with response times. A 1979 study out of King County, Washington, became a foundational piece for developing NFPA 1710 and the CFAI Accreditation Standards. The study concluded that BLS delivered in 4 minutes and ALS delivered within 8 minutes, which positively correlated with patient outcomes. Thus, this set the bar for the standards still influencing system design today. However, the King County study only focused on non-traumatic sudden cardiac arrest (SCA), yet its standards were extrapolated to all call types. A follow-up study by Weaver et al. (1984) became the foundation for the 90th percentile standard of 8 minutes 59 seconds adopted by the American Ambulance Association (AAA). Again, this study focused on witnessed SCA presenting with V-Fib, yet the standard was extrapolated to all call types.

Observations

Evidenced-based clinical research coalesces around a response time of 5 minutes or less to have a statistically significant impact on the risk of mortality for the small proportion of high-acuity incidents.

Response time changes above 6 minutes have limited clinical return on investment and are largely a policy decision.

Much has changed in EMS since these studies, including an expanded body of research regarding the influence of response time on patient outcomes. Empirical research has expanded the scope to include a much wider representation of call types and responses while still considering response times compared to patient outcomes. The culmination of the research indicates that the threshold for response time to influence patient outcome resides around the 5-minute mark. In other words, if a system cannot respond in less than 5 minutes, they are unlikely to positively influence patient outcomes by purchasing any level of performance that cannot meet 5 minutes. However, it is important to recognize that the 5-minute threshold is associated with high-acuity incidents that account for a small proportion of the total calls. A summary of the relevant research is provided below.

Author	Density	Sample Size	Response Time Threshold	Does Response Time Impact Patient Outcome
Blackwell (2002)	ALS Urban	5,424	5 minutes	Yes < 5 minutes; No > 5 minutes
Pons (2005)	ALS Urban	9,559	4 minutes & 8 minutes	No < 8 minutes; Yes < 4 minutes in intermediate/high risk of mortality
Blackwell (2009)	ALS Urban; BLS MFR	746	10:59	No > or < 10:59
Blanchard (2012)	ALS Urban	7,760	8 minutes	No > or < 8 minutes
Weiss (2013)	Metro/Urban and Rural	559	N/A Continuous Variable	No relationship between time and clinical outcomes
Pons (2002)	ALS Urban	3,490	8 minutes	No > or < 8 minutes after controlling for severity of injury
Newgard (2010)	ALS Urban	3,656	4 minutes & 8 minutes and Golden Hour	No time intervals were statistically related to mortality including response time, on-scene time, transport time, or total EMS time
Band (2014)	ALS Urban; BLS MFR	4,122	N/A Continuous Variable	Adjusted for severity of injury, no significant difference between PD and EMS. In patients with severe injuries, gunshot, or stabbing more likely to survive if transported by POLICE.

Additional research has examined the efficacy of emergency, or lights and sirens, responses. While emergency responses do produce statistically quicker responses and transports, very few have clinical implications for patient outcomes. Studies also found that emergency responses were warranted in less than 10% of ambulance transports, and hospitals didn't utilize the time savings created upon arrival to the emergency department. At the same time, community risk increases with emergency responses as units navigate against the established traffic practices. Research has shown that most accidents involving emergency vehicles occur while they are responding lights and sirens.

Assessment of Patient Transports

The transport rates and call durations were evaluated to articulate the overall demand for services, and the call durations were utilized for all subsequent deployment modeling.

The transport rates were evaluated be agency. Combining all agencies within the service area, the transport rate was 64% of the unique incidents. The majority of the patient transports occurred within Cottage Grove. The second highest area experiencing patient transports was Saint Paul Park at 289 transports and highest transport rate, at 69.3%, respectively. Newport required the second highest frequency of requests for service, but has a lower transport rate of 59.3%.

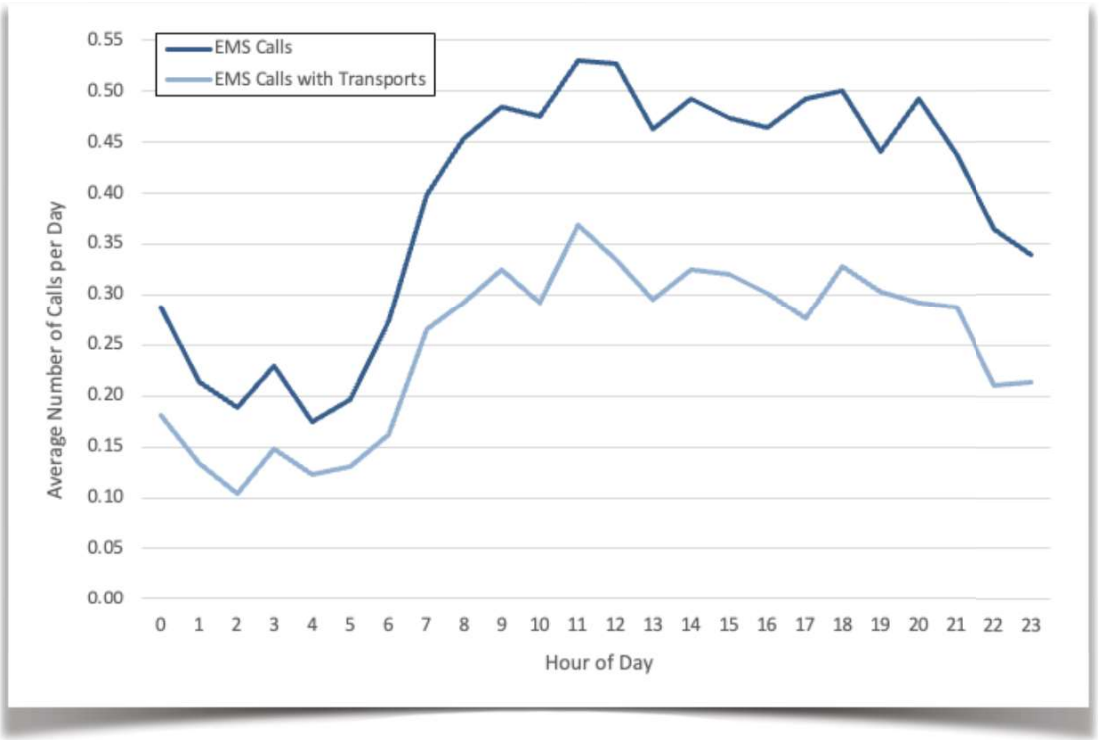
Observation

The transport rates, consistency throughout the 24 hours, and the average call durations are within the national experience.

RMS/NFIRS City	Non-Transport		Transport		Total		
	Average Call Duration (Minutes)	Number of Calls	Average Call Duration (Minutes)	Number of Calls	Average Call Duration (Minutes)	Number of Calls	Transport Rate (%)
Cottage Grove	29.4	884	61.8	1,619	50.3	2,503	64.7
Newport	28.9	187	60.9	273	47.9	460	59.3
Saint Paul Park	28	128	62.9	289	52.2	417	69.3
Township of Grey Cloud Island	27.5	37	80.1	18	44.7	55	32.7
All Calls	29.1	1,236	62	2,199	50.1	3,435	64

Transport rates were evaluated over a 24-hour period. The evaluation intends to look for consistency. In other words, the assumption is that a consistent transport rate indicates clinically based decision-making.

Conversely, if the transport rate drops during peak periods or overnight, clinician-focused decisions might influence the system's performance.



Considerations for Uncompensated Care

The City of Cottage Grove has correctly identified that operational deficits, where EMS expenses exceed available revenues, should be shared by all municipal partners receiving EMS services. The current proposal utilizes the gap between gross charges and net collections by agency compared to Cottage Grove's experience. These gaps can be rather large, therefore, Cottage Grove requested a small percentage of the gap with annual escalators.

While the policy motivation is entirely appropriate, the City is encouraged to consider alternative methodologies. One challenge with the City's current approach is that the "adjustments" are included with the "bad debt". The adjustments are a function of the reimbursement environment created by capitated costs such as Medicare/Medicaid. In other words, the adjustments should not be considered as a true cost of service as they are a function of the reimbursement policies.

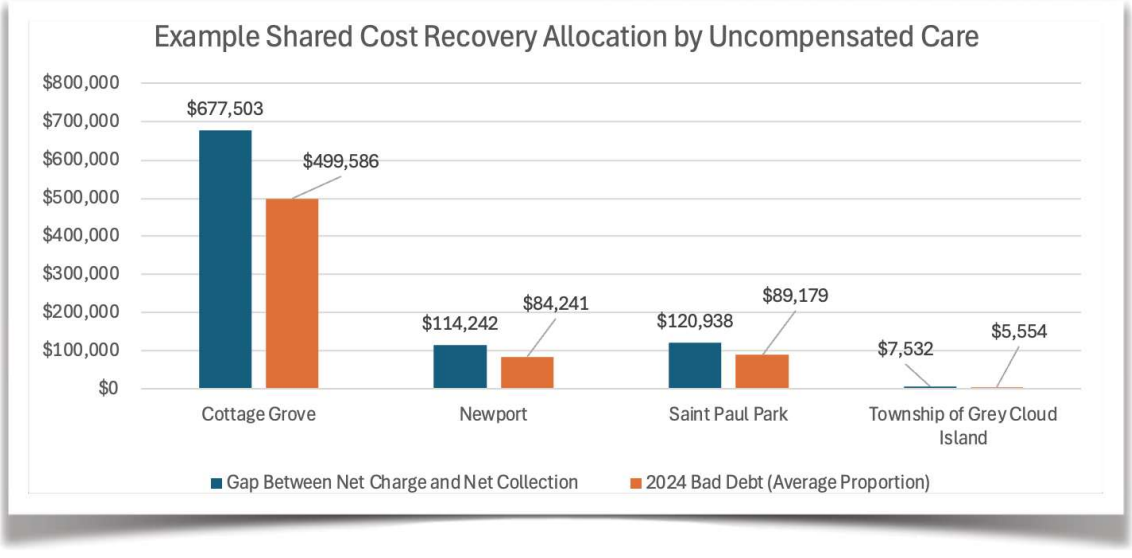
Recommendation

The City of Cottage Grove should continue to explore policy options to address uncompensated care provided by the City to neighboring municipalities.

The cities are encouraged to consider alternative cost sharing strategies to address uncompensated care.

Therefore, two alternatives are offered that are consistent with Cottage Grove's intent to have a shared cost recovery strategy for uncompensated care. The first alternative, utilized the gap between the "net charges", after adjustments, and the actual net collections realized within each agency's jurisdiction. This is illustrated as the blue columns in the figure below. For example, Newport's annual uncompensated care would be estimated at $114,242; St. Paul Park at $120,938; and Grey Cloud Island at $7,532.

The second alternative, focuses on the bad debt. Bad debt is typically defined as the uncompensated care that is eventually written off and not collectable. Theoretically, these two alternatives should be very closely aligned, however, the billing data was provided in the aggregate so each city's contribution was apportioned according to the percentage of EMS transports within each jurisdiction. For example, utilizing the bad debt (orange column), Newport's annual uncompensated care would be $82,241; St. Paul Park at $89,179; Grey Cloud Island at $5,554.



The figure is provided as an example and for illustrative purposes for consideration of the policy options.

Considerations for Shared Costs of Service

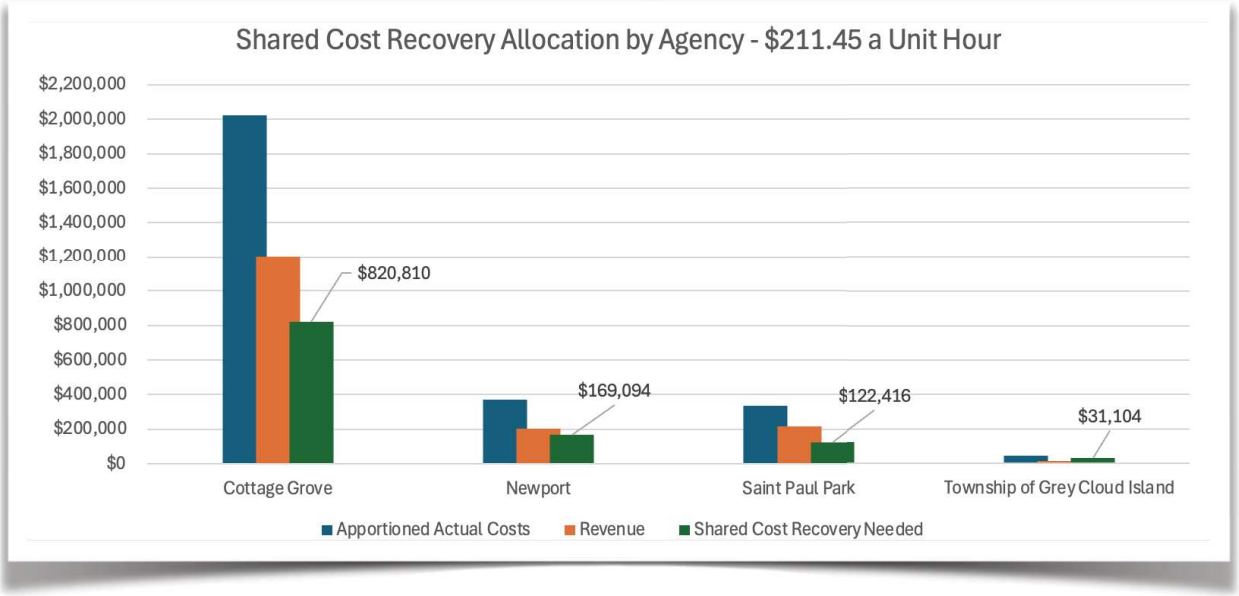
The previous cost sharing alternatives focused on uncompensated care. This alternative maintains the premise that deficit spending for EMS services should be shared. However, the distinction of this alternative is that it utilized actual costs for EMS services. In other words, the cost of readiness and the cost of services provided less actual revenues.

Agency	Proportion of EMS Calls
Cottage Grove	73%
Newport	13%
St. Paul Park	12%
Township of Grey Cloud Island	2%

Utilizing the 2025 Budget's total expenditures, the unit hour cost (UHC) was calculated as $211.45 per hour. Following the distribution of actual EMS calls by municipal jurisdiction, the total hours in a year (10,190) was distributed by agency. The distribution is provided below.
The revenues were estimated by agency and the net difference is the estimated need for cost sharing by agency. Therefore, in this alternative approach, the gap between the actual cost to provide service and the available revenues are captured. This strategy may be more resilient and nimble to automatically adjust with changes in costs for service and/or reimbursement policies. In other words, changes in reimbursement models for the largest payors (Medicare/Medicaid) may increase the adjusted charges that do not have any causal relationship with the cost of services.

The cost distribution is provided in the figure to the right.

The cost sharing for Newport would be $169,094; St. Paul is $122,416; and Grey Cloud Island is $31,104.



Considerations for Shared Costs of Service

The previous cost sharing alternatives focused on uncompensated care and/or actual costs. This alternative maintains the premise that deficit spending for EMS services should be shared. However, the distinction of this alternative is that it utilized the 2025 Budgeted deficit for EMS services.

The budget deficit of $400,210. The shared allocation followed the proportion of the EMS requests for service by community.

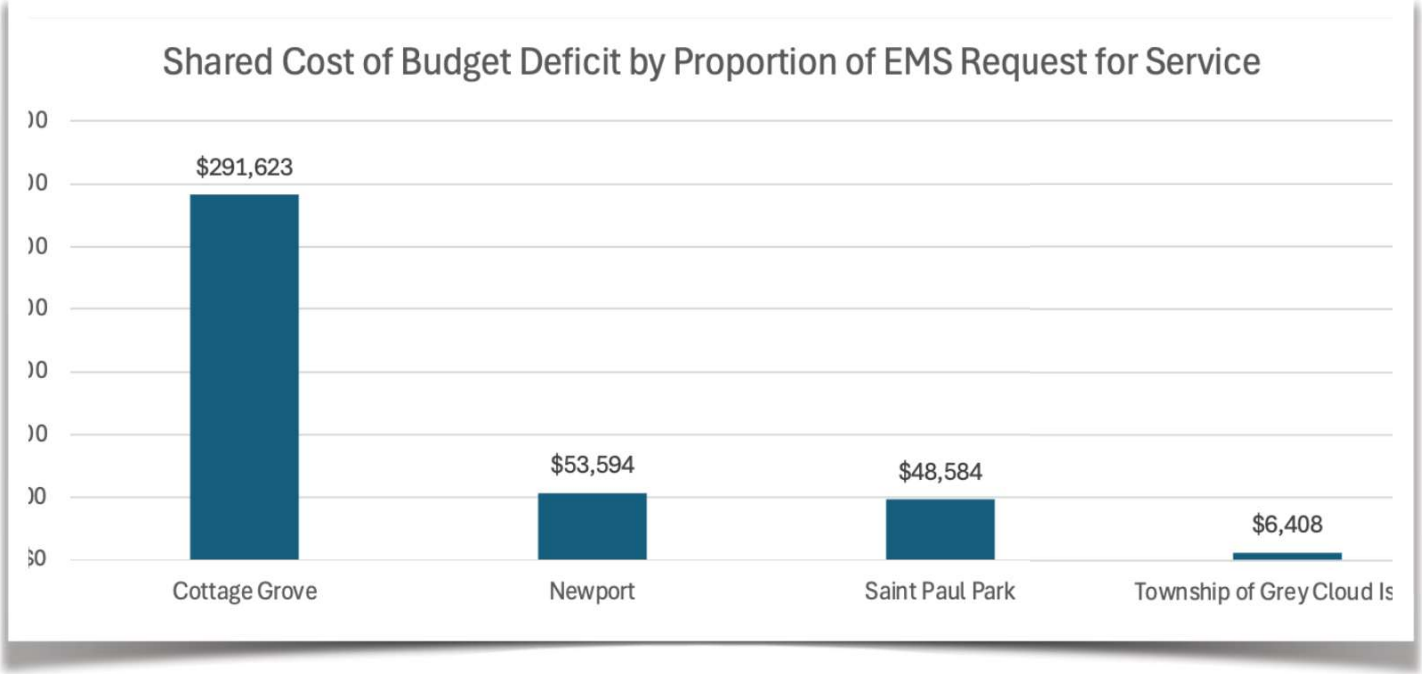
Agency	Proportion of EMS Calls
Cottage Grove	73%
Newport	13%
St. Paul Park	12%
Township of Grey Cloud Island	2%

Recommendation

The City of Cottage Grove should continue to explore policy options to address uncompensated care provided by the City to neighboring municipalities.

The cities are encouraged to consider alternative cost sharing strategies to address deficit program spending.

The cost sharing for Newport would be $53,694; St. Paul is $48,584; and Grey Cloud Island is $6,408. The cost distribution is provided in the figure below.



Assessment of Mobile Apparatus Needs

Apparatus Life Cycle
To maximize firefighter capabilities and minimize risk of injuries, it is important that fire apparatus be equipped with the latest safety features and operating capabilities.

Due to recent changes in NFPA 1901, especially with regard to safety, fire departments should seriously consider the risk to firefighters of keeping fire apparatus more than 15 years old in first line service. According to NFPA 1911, “apparatus more than 15 years old that have been properly maintained and that are still in serviceable condition be placed in reserve status; be upgraded in accordance with NFPA 1912; and incorporate as many features as possible on the current fire apparatus standard.” The standard goes on to say “apparatus that were not manufactured to the applicable NFPA fire apparatus standards or that are over 25 years old should be replaced.”

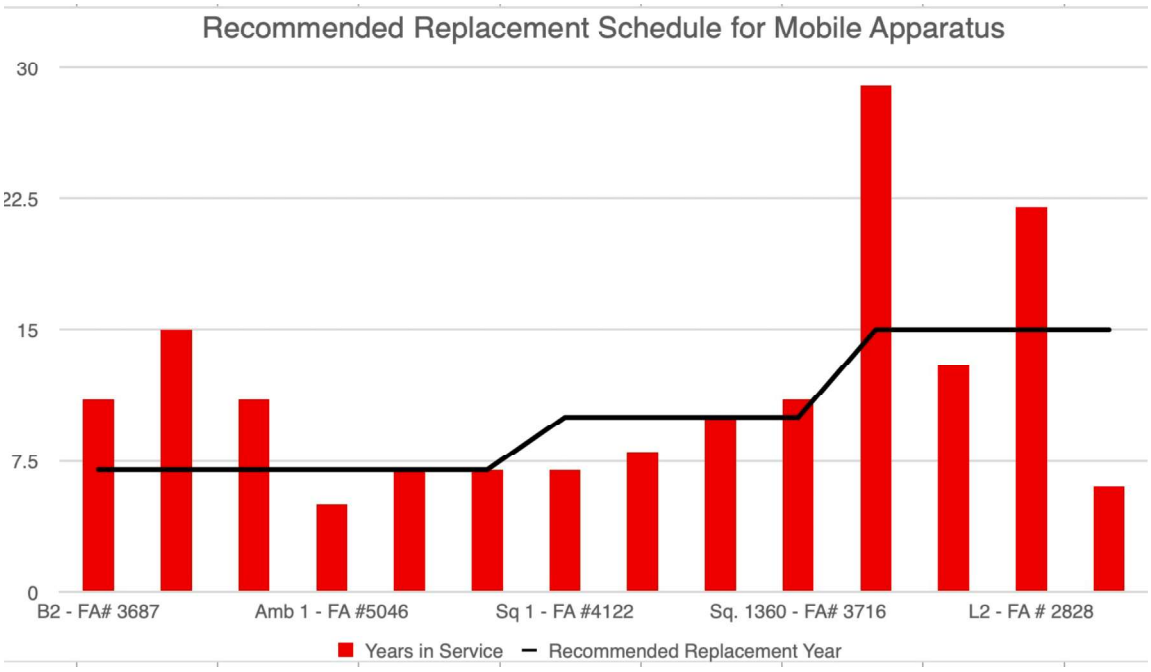
Ideally, it is recommended that ambulances and other moderate duty apparatus are placed on a 7 year replacement schedule, light duty apparatus such as SUV’s should be placed on a 10 year replacement schedule and heavy apparatus should be placed on a 15 year replacement schedule. Based on the current age of the department’s mobile apparatus, several of the department’s vehicles are overdue for replacement or

Recommendations

-Apparatus and vehicle replacement should consider a 7 year replacement for ambulances and moderate duty apparatus, a 10 year replacement for SUV’s and other light duty apparatus and a 15 year replacement for heavy apparatus.

-Ambulances can be utilized in reserve status for an additional 3 years (10 year total age).

-Heavy apparatus can be utilized in reserve status for an additional 10 years (25 year total age).



Assessment of Mobile Apparatus

An assessment of the department's mobile assets was completed to ensure the optimal capital needs for the desired deployment strategy.

Apparatus Overview

The fire department's current fleet consists of the following:

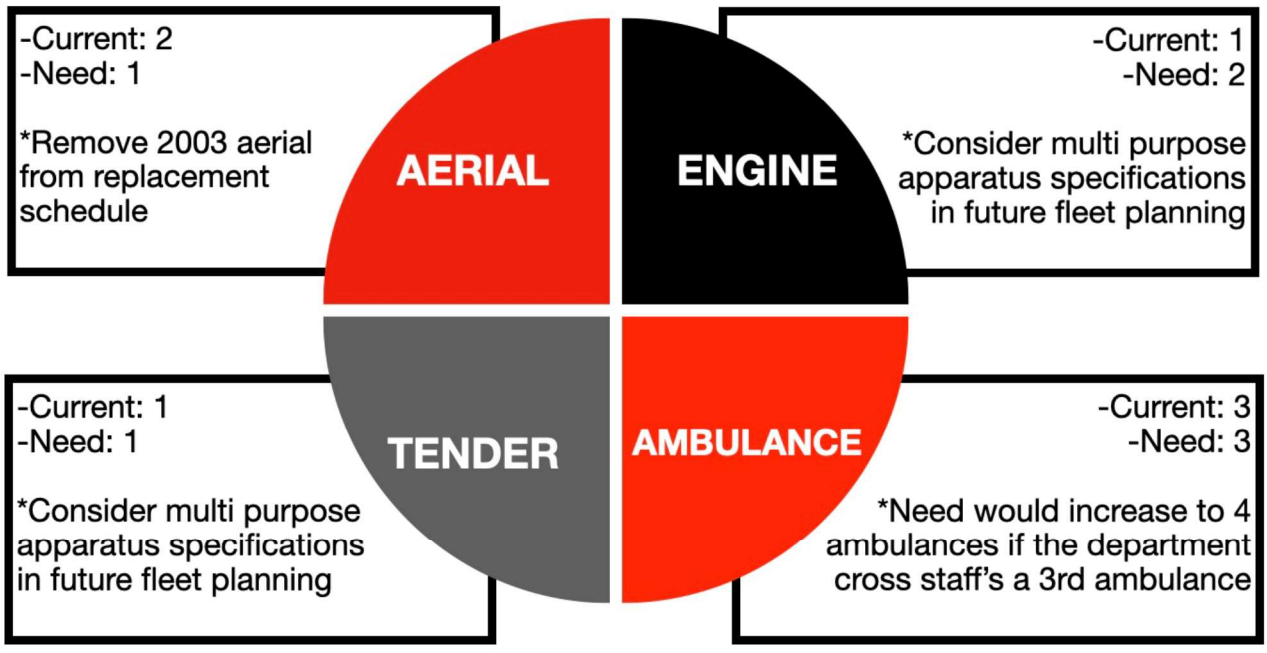
- 1 **Engine**: Essential for fire suppression and water delivery.
- 1 **Tender**: Critical for areas with limited or no hydrant access.
- 2 **Ladder Trucks**: Vital for elevated rescues and aerial firefighting.
- 3 **Ambulances**: Designed for patient transport and medical emergencies.
- 7 **Support Vehicles:** Includes command vehicles, utility trucks and all-terrain vehicles.

Recommendations

-The current number of front-line mobile apparatus is reasonably well aligned with the department's deployment strategy.

-The department purchased a multi-purpose Engine/Tender in 2025. The department should continue to consider multi purpose apparatus specifications in future fleet planning.

-The department would need to consider adding an additional ambulance it the department desires to cross staff the 3rd ambulance.



Assessment of Mobile Apparatus Needs

Apparatus Replacement Challenges

Procurement lead times have surged since the COVID-19 pandemic due to a myriad of factors. The prolonged lead times have added a challenging element for communities to consider when planning for capital purchases. Lead times for ambulance and fire apparatus have extended to as many as three to four years. While some lead times have improved, it is imperative that communities account for extended lead times and update their capital improvement plans according to manufacturers current lead times.

As noted, several of the department's vehicles are overdue or nearing need of replacement. While it is imperative that there is a plan to maintain the department's fleet, it is also important to sequence out capital purchases to avoid large variances in capital needs. Balancing the ideal replacement schedule with associated expenditures will assist with ensuring the department has a fleet that aligns with industry best practices and standards while also avoiding large swings in expenditures year over year.

Recommendations

-Assess current lead times for light, moderate and heavy apparatus at least annually and adjust replacement schedule accordingly.

-Balance ideal replacement with the recommended replacement schedule to balance costs over time.

-Consider cost sharing strategies for heavy apparatus (Tender, Ladder) with neighboring communities.

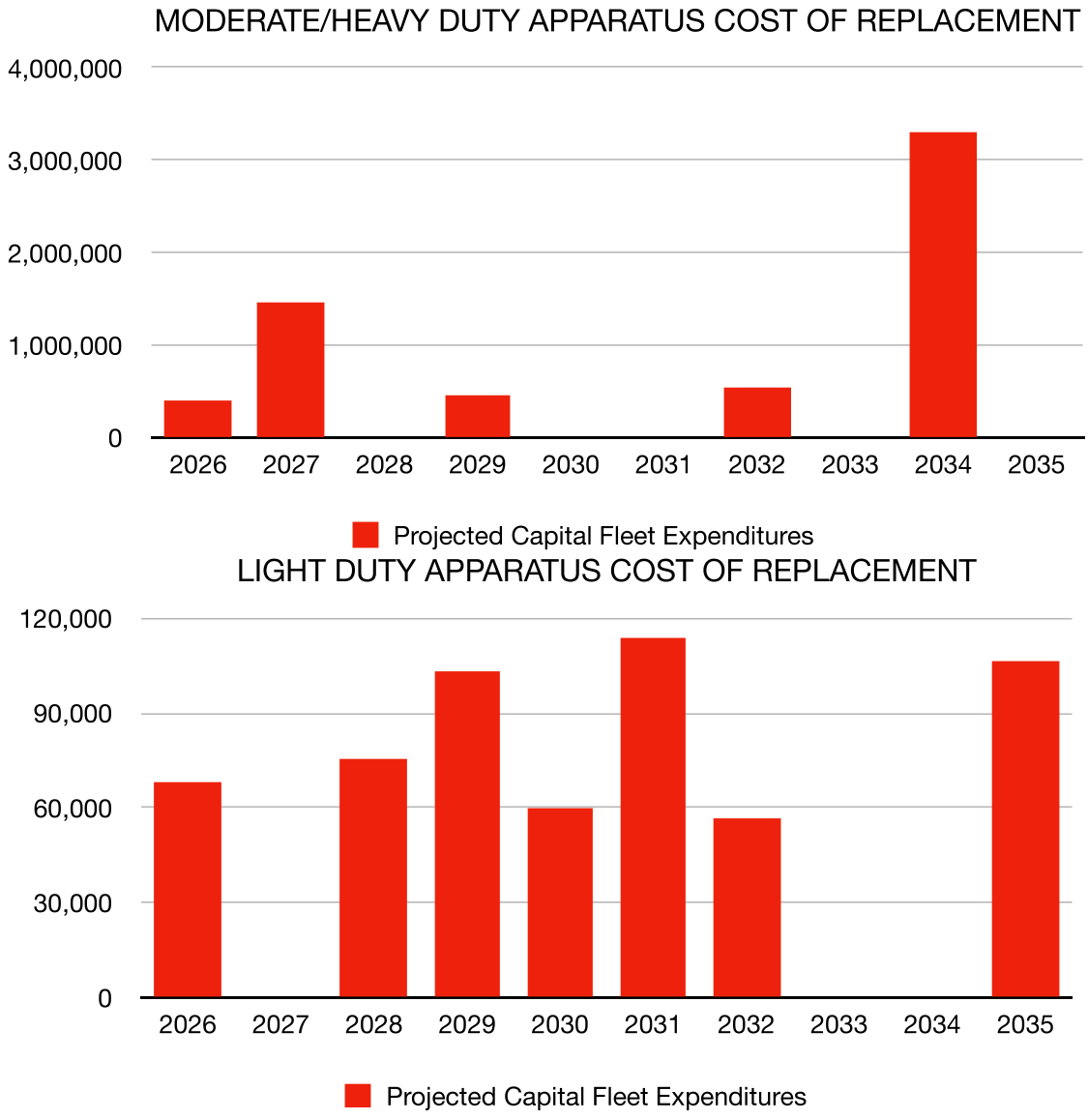
Apparatus:	Vehicle year:	Ideal Replacement:	Recommended Replacement:
Ladder 1 (FA#4345)	2019	2034	2034
Ladder 2 (FA#2828)	2003	Remove from Fleet	N/A
Engine/Tender 3 (FA#2027)	1996	Ordered 2025	2041
Engine 4 (FA#3555)	2012	2027	2027
Ambulance 1 (FA#5046)	2020	2027	2029
Ambulance 2 (FA#4112)	2018	Immediate	2026
Ambulance 3 (FA#4161)	2018	Arrives 2025	2032
UTV (FA#3864)	2014	Immediate	2032
Squad 1 (Tahoe)	2018	2028	2029
Squad 2 (Durango)	2025	2035	2035
Squad 3 (Explorer)	2017	2027	2028
Squad (Explorer)	2014	Immediate	2026
Brush 2 (F250) (FA#3687)	2014	Immediate	2031
Utility (F250) (FA#3449)	2010	Immediate	2030

Summary of Mobile Apparatus Needs

Creating a Balanced Fleet Replacement Plan

If the city were to follow the ideal replacement schedule, several apparatus would need to be replaced immediately. Ideal and recommended replacement schedules were considered to balance replacement costs over time. Given the number of vehicles in the fire department's fleet, it is difficult to completely balance costs year over year given the costs of heavy and moderate duty apparatus.

The recommended replacement plan balances the need to replace light, moderate and heavy duty apparatus while planning for the financial requirements of those purchases. Cost assumptions are based on 2025 estimated cost of replacement and assumes a 5% cost increase per year. The fire department should re-evaluate cost of ownership and the ideal versus recommended replacement schedule at least annually.



Staffing Considerations

A Continuous Staffing strategy is utilized when the department hires additional personnel to cover the average leave experienced on shift work. In this manner, the additional personnel are available as "relief" personnel who are utilized to cover vacancies at the straight time rate more frequently and thus reducing the overtime liability.

An optimized staffing analysis was conducted utilizing mathematical formula to determine the most efficient allocation of personnel to maintain the desired staffing.

Optimal staffing is defined as sufficient staffing to cover all scheduled work hours, shift schedules, and the average employee leave experience. Maintaining the minimum daily staffing of 4, it would require a staffing multiplier of 3.72 to optimally staff the department. Currently, the department utilized a staffing multiplier of 4.0, which is reasonable and affords greater depth of personnel to overcome conditions such as long-term illness or any lags in hiring.

Recommendation

The department's current FTE allocation should be sufficient to maintain a 2 unit 4 person minimum staffing every day.

Recommendation

The department is encouraged fully staff to a minimum staffing of 6 personnel per day to operate 2 ambulances and a fire engine.

In other words, the staffing strategy would be 3.72 Full Time Equivalents (FTEs) for each of the minimum staffed positions (4), for a total of 15 personnel assigned to shift. The current allocation is 16 personnel. The 12-hour peak ambulance proposed would require a staffing multiplier of 2.5. Therefore, it would require 5 FTEs as opposed to 7 to 8 FTEs for a 24-hour shift.

It is recommended that the department continue to evaluate the leave history and adjust the staffing multiplier as needed.

Current Staffing:

The Cottage Grove Fire Department currently has 16 line FTE's and has a budgeted part-time staff of 14 employees which are meant to staff and two additional FTE's, bringing the department's total line strength to 18 FTE's.

These employees staff three 24-hour shifts on a rotating basis. The department staffs a minimum of four personnel daily. On-shift personnel staff two response units daily. One dedicated ambulance and one unit that is cross staffed between a fire engine and an ambulance. Given the cross staffing of resources, some risk exists where the fire department may not have any fire suppression resources available.

The department's current goal is to staff two dedicated ambulances and one fire engine daily. Department data suggests that the department is unable to meet this goal 80 percent of the time. The current FTE count is not adequate to meet the department's goal when factoring in employee leave and part-time vacancies.

Staffing Considerations

Future Staffing Considerations:
When determining future staffing levels, the department is encouraged to consider creating a stair stepped implementation which includes good, better and best considerations.

Good:
The department would need to add 7 FTE to meet the department's current goal of staffing three dedicated units 24/7. The addition of FTE's could be stair stepped in for budgetary purposes by adding 4 FTE in the interim, which would allow the department to staff 6 personnel during the peak hours and a minimum of 4 personnel 24/7.

Recommendations

-Consider good, better, best staffing options to account for current demands and desired fire department capacity.

-Regardless of the staffing model chosen, ensure adequate policies are in place to ensure that minimum staffing levels are maintained.



	Current Capacity:		Current Goal:
Current Staffing	4 Personnel	Six Personnel	Six Personnel
24hr Seats	4	6 Day / 4 Overnight	6
Minimum Per Shift - 24 Hr	4	4	6
Minimum per Shift - 12 Hr	0	2	0
Calculated Relief Staffing Multiplier	3.72	3.72 and 2.5	3.72
Total FTE Required by Multiplier	15	20	23
Current Shift Assigned FTE	16	16	16
Additional Department Personnel Needed	-1	4	7

Staffing Considerations

Better:
The department should consider a minimum of three person staffing on the fire engine. Currently, when the department's fire engine is staffed, it is cross-staffed with two people. A minimum of a three person fire suppression unit should be considered to ensure that the department has adequate staffing to take initial actions on fire incidents. In the event of a fire, one person is required to operate the fire engine. Three person staffing allows for the department to deploy the other two fire personnel to perform other fire ground tasks such as advancing hose lines and performing search and rescue. Additionally, three person staffing would allow the department to reduce multi-unit responses on incidents such as car fires, rubbish fires, alarms and service calls.

Best:
If the department desires to continue it's current commitment to community risk reduction and engagement activities. The department is encouraged to implement a peak demand unit. This unit would allow for additional staff to conduct community risk reduction programs such as community paramedicine, fire prevention activities and community outreach. This unit could also serve as a 3rd ambulance during peak demand hours which would assist in the department's goal to reduce mutual aid reliance.

Recommendations

-Consider three person staffing on the fire engine.

-Consider a peak demand unit to in the future to augment the department's community risk reduction initiatives and reduce mutual aid utilization.

-Consider a 2,912 schedule vs current 2,756 hours/ annually which would reduce relief staffing multiplier.

Current Staffing	Better	Best
24hr Seats	7	9 Day/7 Overnight
Minimum Per Shift - 24 Hr	7	7
Minimum per Shift - 12 Hr	0	2
Calculated Relief Staffing Multiplier	3.72	3.72 and 2.5
Total FTE Required by Multiplier	26	31
Current Shift Assigned FTE	16	16
Additional Department Personnel Needed	10	15

Staffing Considerations

Part-Time Staffing Challenges

The fire department currently utilizes a combination staffing model that utilizes part-time positions to account to for two FTE's against the department's daily minimum staffing requirements. The department uses a formula of 7 part-time employees per FTE. In other words, the current model relies on 7 part-time employees to fill one daily operating position. In theory, this strategy requires a minimum of 14 part-time employees to fill the two daily operating positions that the department relies on to count towards minimum staffing requirements.

The number of total part-time hours worked has decreased dramatically since 2018. In 2018, the department relied on over 25,000 of part-time hours worked. In 2024, there were less than 10,000 hours worked. During that time, the department's part-time workforce has shrunk from 39 personnel in 2018 to 9 personnel in 2024. Despite continued recruitment and retention efforts, the department has experienced a 43 percent turnover within two years of employment and a 71 percent turnover within five years of employment. The rate of turnover is concerning considering the costs associated with effectively training and outfitting a new firefighter. Conservatively, these costs range between $12-$15,000/ firefighter. These costs should be considered during the policy decision making process. Although it is markedly less expensive to employ a part-time workforce from a wage and benefits standpoint, the operational costs should be considered as the department decides how to invest in future staffing strategies.

Recommendations

-Consider sunsetting the part-time staffing program.

-The existing part-time staffing pool can serve as a hiring pool for future full-time positions

-Existing part-time employees should be supported in the pursuit of additional training and credentials required for full-time employment with the city.

Based on the fire department's current part-time shift vacancy rate of 60 percent, the department would need to consider having a contingent of at least 8 additional part-time employees in addition to the currently budgeted 14 part-time employees to reliably fill open shifts. Given the department's documented recruitment and retention efforts, coupled with ongoing part-time attrition the department should consider whether continuing to invest in a part-time staffing model is sustainable.

Challenges in recruiting and retaining a part-time workforce are not unique to the city of Cottage Grove. Overall, the national experience is that volunteerism is on the decline in the United States. While the department has transitioned to a part-time workforce, the challenges are parallel to the challenges experienced by departments employing a volunteer workforce. There are many factors that may contribute to this phenomenon, including a changing economy, generational preferences, and community age demographics, to name a few.

Additional reasons reported externally for the recruitment and retention challenges include: reduction in available time, more dual income households, demand for service, increasing training requirements, and health risks. It is usually not just one of the challenges, but multiple, that keep residents from having additional time to work for their local fire department on a part-time or volunteer basis. In addition, each communities unique experience may vary.

Based on the recruitment and retention rates described and the associated costs with on-boarding new employees. The city should consider sunsetting the part-time staffing model through attrition. It is recommended that the part-time employee pool is encouraged to apply for full-time positions if desired.

Adopting a System of Measures

However, it is still important to measure and manage the efficiencies of a well-run operation using a system of measures as presented in the table below. In this manner, the daily management continues in place, but the strict adherence to system design performance is secondary to the outcomes measures. For example, if response time increases and there is no change in outcomes then it would be purely a policy choice to act. Conversely, if the outcomes change, then the department leadership will turn to the system of measures and attempt to discern which of the variables or combination of variables may be contributing to the change in outcomes.

Recommendation

-The department should consider adopting a system of measures based on desired measures.

-Work with Washington County Emergency Communications Response Center and records management system to ensure each response time element can be accurately reported and monitored.

The summary of measures provided below include all aspects of time, apparatus staffing by type, relative risk ratings, and system resiliency measures such as reliability, call concurrency, workload, and unit hour utilization. For example, reliability should be at least 70% for each station and only if the reliability drops below the 70% threshold before considering a mitigation reaction. Similarly, call concurrency is credible until the call concurrency reaches 70%. In other words, only 30% of the calls are overlapping. Call concurrency is suggested as a per unit threshold unless the majority of calls are multi-unit responses. For example, if there are two units assigned to a station, the station level call concurrency can perform well at 60% or less for single unit responses. Finally, the cross-staffed strategy applies to an upper call volume threshold of no more than 1,500 calls per year (4 calls per day) and a call concurrency of 15% or less. Under these conditions, units can typically be cross-staffed.

The system of measures provided are not intended to be overly prescriptive for the department. The department should adopt the system performance objectives internally and update as needed.

Type of Measure	Performance Metric	Recommended Performance	Priority	Review Period
Station/Unit Performance	Turnout Time – EMS (Staffed)	≤1.0 Min at 90%	Emergent	Quarterly
	Turnout Time – All Other (Staffed)	≤1.5 Min at 90%	Emergent	Quarterly
	Travel Time (Cottage Grove)	≤8 Min at 90%	Emergent	Quarterly
	Travel Time (Entire EMS Area)	≤9 Min at 90%	Emergent	Quarterly
	Minimum Ambulance Staffing	≥2 FF/EMT and FF/PM	All Responses	Daily
	Minimum Engine/Aerial Staffing	≥2 Firefighters	All Responses	Daily
System Design and Performance	Dispatch Time	≤2 Min at 90%	Emergent	Monthly
	Station Risk Rating	Increases in Risk		Annually
	Reliability	≥90%		Quarterly
	Call Concurrency	≤30% Per Unit		Quarterly
	Call Volume	3,000 – Initial 1,000 – Ongoing		Annually
	Unit Hour Utilization	≤0.15 on 24-hour Engines and Aerials ≤0.30 on 24-hour on Ambulances ≤0.50 on 12-hour Ambulances		Quarterly
	Cross-Staffing at Unit Level	<1,500 annual calls and <15% Call Concurrency		Annually

Continuous Improvement and Annual Appraisal

This SOC document is designed to guide the department to continuously monitor performance, seek areas for improvement, and to clearly articulate service levels and performance to the community we have the privilege of serving. Therefore, the Fire Chief has established a Compliance Team to continuously monitor elements of this SOC and make recommendations for system adjustment or improvement quarterly.

Recommendation

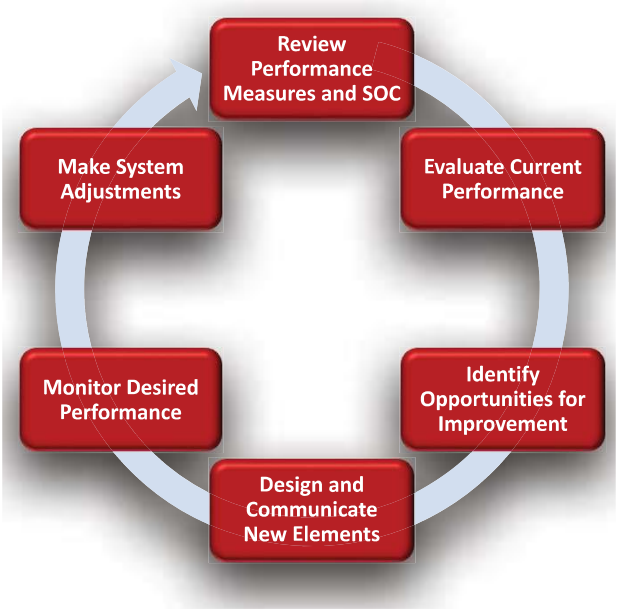
-Establish an SOC Compliance Team

-Review performance and compliance and report annually.

Compliance Team and Responsibilities

The Compliance Team will consist of the following department members (TBD) and will have the responsibility of continuously monitoring changes in risk, community service demands and department performance in each program area, fire response demand zone, and/or risk category.

- Chair – Fire Chief's Designee
- Member – Community Risk Reduction
- Member – Operations
- Member – Administration
- Member – Finance



Performance Evaluation and Compliance Strategy

The Compliance Team will evaluate system performance by measuring first due unit performance at the 90th percentile quarterly and annually. In addition, the department will evaluate first due performance by each individual SDZ and by program area. In addition, risk will be evaluated annually. Annual reviews will be conducted in January of each year regarding the previous year. All response performance monitoring will exclusively evaluate emergency responses.

The Compliance Team will determine the strengths, weaknesses, opportunities, and challenges of the system performance annually and make recommendations for system adjustments to the Fire Chief. Finally, the team will annually update and evaluate the risk assessment matrices for relevancy and changes in community risk.

Ultimately, it is recommended that outcome measures are adopted and serve as the primary evaluation tool and that the traditional performance objectives and measures presented previously are utilized primarily as a management tool. In this manner, the department will not be overly sensitized to incremental changes in performance criterial if the outcomes continue to be met.

Summary of Substantive Recommendations

Recommendations:

-The department should better align dispatch and turnout times with best practices.

-Work with Washington County Emergency Communications Response Center and records management system to ensure each response time element can be accurately reported and monitored.

-Improving the Dispatch and Turnout Times has an excellent return on investment for improving the citizen's total response experience.

-Adopt response time performance standards and measure performance at least annually.

Observations:

-The primary staffed station in Cottage Grove can cover 93.5% of all calls within Cottage Grove within an 8-minute travel time.

-The staffed station in Cottage Grove can cover 93.5% of all calls within the entire EMS service area within 9-minutes travel time.

Recommendations:

-Remove Station 4 from future deployment conversations.

-Consider exploring available property in the southwest area of Cottage Grove to plan for potential future development.

Recommendations:

-There is an opportunity to improve coverage to the EMS service areas by placing a necessary second ambulance within either St. Paul Park or Newport.

-The City of Cottage Grove should continue to explore policy options to address uncompensated care provided by the City to neighboring municipalities.

Summary of Substantive Recommendations

Staffing Recommendations:

-The department should establish the minimum daily deployment at two staffed resources 24 hours per day and 7 days a week.

-The recommended resource allocation of a minimum of two units is also sufficient to absorb all work introduced by neighboring communities. In other words, there is no need for additional investment beyond what is required to respond to Cottage Groves demands for service.

-The department should plan for the implementation of a 2nd dedicated ambulance unit for the daily minimum deployment. It is recommended that this is implemented within the next four years

-The department's current FTE allocation should be sufficient to maintain a 2 unit 4 person minimum staffing every day.

-The department is encouraged fully staff to a minimum staffing of 6 personnel per day to operate 2 ambulances and a fire engine.

-Consider good, better, best staffing options to account for current demands and desired fire department capacity.

-Regardless of the staffing model chosen, ensure adequate policies are in place to ensure that minimum staffing levels are maintained.

-Consider three person staffing on the fire engine.

-Consider a peak demand unit to in the future to augment the department's community risk reduction initiatives and reduce mutual aid utilization.

-Consider assigning staff to 2,912 hours/annually vs current 2,756 hours/annually which would reduce relief staffing multiplier.

-Consider sunsetting the part-time staffing program.

-The existing part-time staffing pool can serve as a hiring pool for future full-time positions

-Existing part-time employees should be supported in the pursuit of additional training and credentials required for full-time employment with the city.

Summary of Substantive Recommendations

Recommendations:

-Apparatus and vehicle replacement should consider a 7 year replacement for ambulances and moderate duty apparatus, a 10 year replacement for SUV's and other light duty apparatus and a 15 year replacement for heavy apparatus.

-Ambulances can be utilized in reserve status for an additional 3 years (10 year total age).

-Heavy apparatus can be utilized in reserve status for an additional 10 years (25 year total age).

-The current number of front-line mobile apparatus is reasonably well aligned with the department's deployment strategy.

-The department purchased a multi-purpose Engine/Tender in 2025. The department should continue to consider multi purpose apparatus specifications in future fleet planning.

-The department would need to consider adding an additional ambulance it the department desires to cross staff the 3rd ambulance.

-Assess current lead times for light, moderate and heavy apparatus at least annually and adjust replacement schedule accordingly.

-Balance ideal replacement with the recommended replacement schedule to balance costs over time.

-Consider cost sharing strategies for heavy apparatus (Tender, Ladder) with neighboring communities.

Summary of Substantive Recommendations

Recommendations:

-The department should develop a more robust occupancy level data to include individual occupancy level risks into the overall risk matrices.

-The department should continue to evaluate community risks and update the Standards of Cover (SOC) annually.

-The department should continue to monitor socioeconomic and demographic variables correlated with changes in risk.

-The department should develop a process to capture occupancy level risks (building level) and incorporate specific occupancy ratings into the overall risk assessment process and risk matrices.

-The department is encouraged to consider outcome measures in the periodic reassessment of the risk categorization and classification process.

-The department is encouraged to continue to annually review risk severities that are more appropriately defined by the two-dimensional risk assessment process.

-The agency should continue refining the charge master to industry best practices.

-The department should consider adopting a system of measures based on desired outcomes.

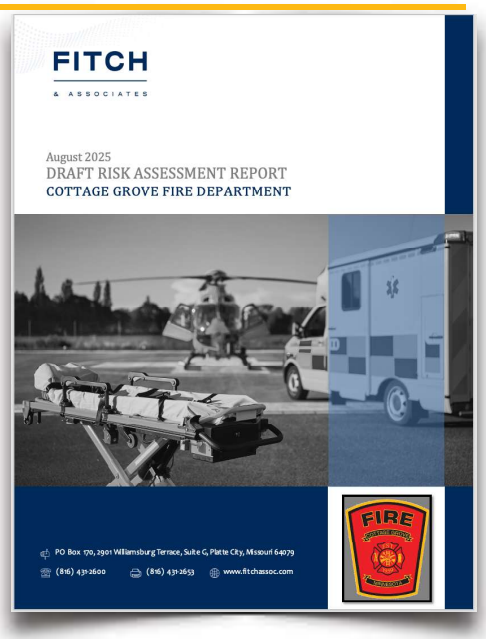
-Establish an SOC Compliance Team

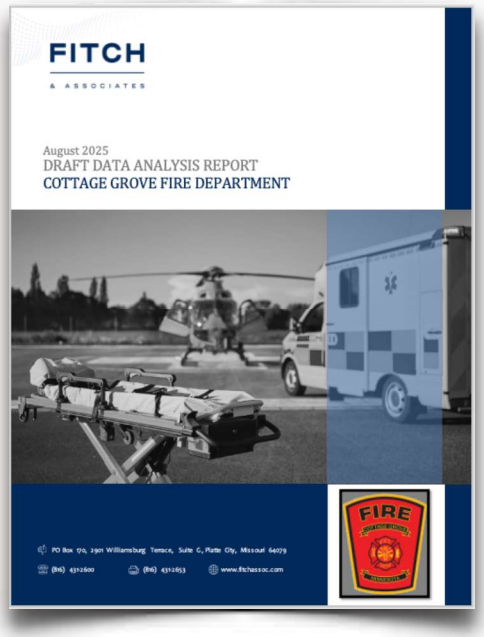
-Review performance and compliance and report annually.

Appendices - Supporting Documents

The community risk assessment (CRA) is presented as a supporting document to provide greater detail and transparency into the risk assessment process.

This summary report provided the high-level substantive results of the community risk assessment. However, if greater detail is desired, please refer to the Community Risk Assessment report provided in the appendices.



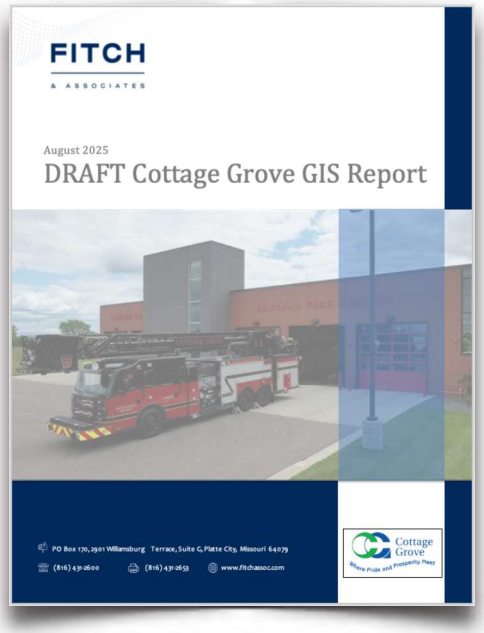


The comprehensive quantitative data analysis is presented as a supporting document to provide greater detail and transparency into the historical performance of the fire department.

This summary report provided the high-level substantive results of the comprehensive data analysis. However, if greater detail is desired, please refer to the Data Analysis report provided in the appendices.

The comprehensive geospatial analysis (GIS) is presented as a supporting document to provide greater detail and transparency into the response time and fire station location study.

This summary report provided the high-level substantive results of the comprehensive data analysis. However, if greater detail is desired, please refer to the GIS Analysis report provided in the appendices.



FITCH

& ASSOCIATES

August 2025

DRAFT DATA ANALYSIS REPORT

COTTAGE GROVE FIRE DEPARTMENT



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METHODOLOGY

We obtained Records Management System/National Fire Incident Reporting System (RMS/NFIRS), Computer-Aided Dispatch (CAD), and Electronic Patient Care Reporting/National Emergency Medical Services Information System (ePCR/NEMSIS) data files from Cottage Grove Fire Department (CGFD) spanning January 1, 2022 through December 31, 2024. Based on the date range of data provided, three full calendar years of data (i.e., 2022 through 2024) were available for select baseline analyses, as presented in the last section of this report. The comprehensive data report (i.e., all sections prior to the baseline section) reflects data from the 2024 calendar year spanning January 1, 2024 through December 31, 2024, hereinafter referred to as 2024 or the 2024 reporting period.

We utilize two distinct measures in this report—call volume and workload. Requests for service are defined as "incidents" or "calls" (i.e., call volume). Call volume reflects the number of times a distinct incident was created involving one or more CGFD units, and/or calls received in CGFD's jurisdiction. "Responses" are the number of times that an individual unit (or units) responded to a call (i.e., workload).

Audits of the data files were first conducted to identify any anomalies for attention and reconciliation prior to data analysis (Table 56 and Table 57 in the Appendix). No exclusions were required prior to call volume and temporal analyses. Exclusion criteria were applied to records prior to response volume and busy time analyses (Table 56), and additional exclusion criteria were applied to records prior to the analysis of performance time metrics (e.g., dispatch time; turnout time; travel time; Table 57). Entries with negative times or with times of zero minutes, and entries with extremely high busy or performance times (i.e., outliers) were excluded, as applicable.

Classifications of responses into program and call type categories, as applicable, appear in the Appendix for variables from the CAD data file (Table 58, based on "Problem" values), RMS/NFIRS data file (Table 59, based on "Basic Incident Type (FD1.21)" values), and ePCR/NEMSIS data file (Table 60, based on "Incident Complaint Reported By Dispatch/Dispatch Reason (eDispatch.01)" values). These classification criteria were reviewed, edited as needed, and approved by department leadership.

Responses were also classified based on response priority status and role of the responding unit. Analyses of performance times focused on emergency (lights and sirens) responses from CGFD's first arriving primary front-line units for all unique calls. Priority status was based on either the "Basic Response Mode To Scene (FD1.70)" variable from the RMS/NFIRS data file, or the "Response Mode To Scene (eResponse.23)" variable from the ePCR/NEMSIS data file, wherein the value of "Lights and Siren Used" was considered to represent emergency responses. CGFD units considered by department leadership to be primary front-line units appropriate for inclusion in performance time analyses included ambulance units CGAMB1, CGAMB2, and CGAMB3, brush truck CGB2, engines CGE1 and CGE4, ladder trucks CGL1 and CGL2, and tender CGE3. Analyses related to performance (i.e., dispatch,

turnout, travel, and response time) were restricted based on these classifications to include only primary front-line units responding as emergency (lights and sirens) responses, and are identified in the report where applicable.

Any reduced sample sizes due to missing or excluded data are also noted in the report where applicable. Performance time summary statistics are often reported as 90th percentile values in this report. See the Appendix section for information related to the calculation of these metrics, and the restriction to calculation for only sample sizes containing at least ten observations.

2024 SNAPSHOT

System Performance

Table 1: 90th Percentile Performance Times by CAD Program and RMS/NFIRS City – First Arriving CGFD Units in CGFD's Jurisdiction

CAD Program and RMS/NFIRS City[1]	Dispatch Time (Minutes)	Turnout Time (Minutes)	Travel Time (Minutes)	Response Time (Minutes)	Sample Size[2]
EMS	**4.2**	**2.9**	**9.5**	**14.5**	**1,616**
Cottage Grove	4.2	3.0	8.5	13.8	1,197
Newport	4.8	2.9	10.4	16.3	200
Saint Paul Park	3.6	2.8	11.5	15.2	196
Township of Grey Cloud Island	5.2	--	15.5	20.3	23
Fire	**4.6**	**3.7**	**8.2**	**13.0**	**252**
Hazmat	**5.7**	**4.2**	**7.7**	**12.9**	**18**
Rescue	**--**	**--**	**--**	**--**	**3**
Total Cottage Grove	**4.3**	**3.2**	**8.4**	**13.7**	**1,470**
Total All	**4.3**	**3.1**	**9.3**	**14.3**	**1,889**

[1]Metrics by RMS/NFIRS city are reported individually for EMS calls only, as CGFD units are first due to all fire, hazmat, and rescue calls in the RMS/NFIRS city value of Cottage Grove only.
[2]Sample sizes reflect the number of responses to emergency calls made by first arriving primary front-line units assigned to CGFD; due to missing or excluded time data, sample sizes corresponding to individual table metrics may be smaller.

Table 2: 90th Percentile Travel Times by RMS/NFIRS City and Unit Type – First Arriving CGFD Units in CGFD's Jurisdiction

RMS/NFIRS City	Unit Type	Travel Time (Minutes)	Number of First Arrivals	Number of First Arrivals with Travel Times
Cottage Grove	Ambulance	8.4	1,197	1,193
	Brush Truck	--	3	3
	Engine	8.3	237	235
	Ladder Truck	8.6	32	32
	Tender	--	1	1
	Total	**8.4**	**1,470**	**1,464**
All	Ambulance	9.5	1,614	1,610
	Brush Truck	--	3	3
	Engine	8.5	239	237
	Ladder Truck	8.6	32	32
	Tender	--	1	1
	Total	**9.3**	**1,889**	**1,883**

Community Demand

Table 3: Number of Calls by RMS/NFIRS Jurisdiction, CAD Program, and CAD Call Type

CAD Program and Call Type[2]	RMS/NFIRS Jurisdiction[1]								
	Within CGFD			Outside of CGFD			All		
	Number of Calls	Average Calls per Day	Call Percentage	Number of Calls	Average Calls per Day	Call Percentage	Number of Calls	Average Calls per Day	Call Percentage
EMS	**3,737**	**10.2**	**88.7**	**609**	**1.7**	**84.8**	**4,346**	**11.9**	**88.2**
Breathing Problem	338	0.9	8.0	48	0.1	6.7	386	1.1	7.8
Cardiac and Stroke	425	1.2	10.1	65	0.2	9.1	490	1.3	9.9
Fall and Injury	809	2.2	19.2	117	0.3	16.3	926	2.5	18.8
Illness and Other	1,681	4.6	39.9	225	0.6	31.3	1,906	5.2	38.7
Mutual Aid	4	< 0.1	0.1	43	0.1	6.0	47	0.1	1.0
MVA	177	0.5	4.2	73	0.2	10.2	250	0.7	5.1
Overdose and Psychiatric	62	0.2	1.5	4	< 0.1	0.6	66	0.2	1.3
Seizure and Unconsciousness	241	0.7	5.7	34	0.1	4.7	275	0.8	5.6
Fire	**444**	**1.2**	**10.5**	**98**	**0.3**	**13.6**	**542**	**1.5**	**11.0**
Brush Fire	5	< 0.1	0.1	1	< 0.1	0.1	6	< 0.1	0.1
Fire Alarm	224	0.6	5.3	21	0.1	2.9	245	0.7	5.0
Fire Other	63	0.2	1.5	6	< 0.1	0.8	69	0.2	1.4
Hazardous Condition	85	0.2	2.0	12	< 0.1	1.7	97	0.3	2.0
Mutual Aid	1	< 0.1	< 0.1	18	< 0.1	2.5	19	0.1	0.4
Outside Fire	18	< 0.1	0.4	0	0.0	0.0	18	< 0.1	0.4
Structure Fire	30	0.1	0.7	37	0.1	5.2	67	0.2	1.4
Vehicle Fire	18	< 0.1	0.4	3	< 0.1	0.4	21	0.1	0.4
Hazmat	**23**	**0.1**	**0.5**	**5**	**< 0.1**	**0.7**	**28**	**0.1**	**0.6**
Hazmat	23	0.1	0.5	5	< 0.1	0.7	28	0.1	0.6
Rescue	**8**	**< 0.1**	**0.2**	**6**	**< 0.1**	**0.8**	**14**	**< 0.1**	**0.3**
Rescue	8	< 0.1	0.2	6	< 0.1	0.8	14	< 0.1	0.3
Total	**4,212**	**11.5**	**100.0**	**718**	**2.0**	**100.0**	**4,930**	**13.5**	**100.0**

[1]CGFD's jurisdiction includes the RMS/NFIRS city value of Cottage Grove for all EMS, fire, hazmat, and rescue calls, and additionally the RMS/NFIRS city values of Newport, Saint Paul Park, and Township of Grey Cloud Island for EMS calls.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.

Response Volume and Busy Time

Table 4: Number of Calls, Number of Responses, and Total Busy Time by RMS/NFIRS Jurisdiction and CAD Program – CGFD Units

RMS/NFIRS Jurisdiction	CAD Program[1]	Number of Calls[2]	Number of Responses[3]	Average Responses per Call	Total Busy Hours	Average Busy Minutes per Response	Average Calls per Day	Average Responses per Day
All	EMS	4,036	4,425	1.1	2,958.3	40.1	11.0	12.1
	Fire	530	784	1.5	346.0	26.5	1.4	2.1
	Hazmat	28	43	1.5	16.1	22.4	0.1	0.1
	Rescue	13	19	1.5	5.5	17.3	< 0.1	0.1
	Total	**4,607**	**5,271**	**1.1**	**3,325.8**	**37.9**	**12.6**	**14.4**
Within CGFD[4]	EMS	3,435	3,796	1.1	2,645.9	41.8	9.4	10.4
	Fire	434	662	1.5	279.5	25.3	1.2	1.8
	Hazmat	23	38	1.7	14.9	23.5	0.1	0.1
	Rescue	7	12	1.7	2.2	10.9	< 0.1	< 0.1
	Total	**3,899**	**4,508**	**1.2**	**2,942.4**	**39.2**	**10.7**	**12.3**
Outside of CGFD	EMS	601	629	1.0	312.4	29.8	1.6	1.7
	Fire	96	122	1.3	66.6	32.7	0.3	0.3
	Hazmat	5	5	1.0	1.1	13.7	< 0.1	< 0.1
	Rescue	6	7	1.2	3.3	28.3	< 0.1	< 0.1
	Total	**708**	**763**	**1.1**	**383.4**	**30.2**	**1.9**	**2.1**

[1]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[2]"Number of Calls" reflects an adjusted number of calls to align with responses made by valid units assigned to CGFD.
[3]"Number of Responses" reflects the total number of records in the data file associated with responses made by valid units assigned to CGFD.
[4]"Within CGFD" includes the RMS/NFIRS city values of Cottage Grove, Newport, Saint Paul Park, and Township of Grey Cloud Island for EMS calls, and the RMS/NFIRS city value of Cottage Grove for fire, hazmat, and rescue calls.

DISTRIBUTION STUDY

System Performance

The first step in determining the current state of the system's deployment model is to establish baseline measures of performance. This analysis is crucial to the ability to discuss alternatives to the status quo and in identifying opportunities for improvement. This portion of the analysis will focus efforts on elements of response time and the cascade of events that lead to timely response with the appropriate apparatus and personnel to mitigate the event. Response time goals should be examined in terms of total reflex time, or total response time, which includes the dispatch or alarm processing time, turnout time, and travel time.

Cascade of Events

The cascade of events is the sum of the individual elements of time beginning with a state of normalcy and continuing until normalcy is once again restored through the mitigation of the event. The elements of time that are important to the ultimate outcome of a structure fire or critical medical emergency begin with the initiation of the event. For example, the first onset of chest pain begins the biological and scientific time clock for heart damage, irrespective of when 911 is notified. Similarly, a fire may begin and burn undetected for a period of time before the fire department is notified. The emergency response system does not have control over the time interval for recognition or the choice to request assistance. Therefore, the department utilizes quantifiable "hard" data points to measure and manage system performance. These elements include dispatch time (or call processing time), turnout time, travel time, and total response time. An example data depiction of the performance time interval measurements utilized by the department is provided on the next page (Figure 1).

Dispatch Time

Dispatch time (or call processing time) is the element of time measured between when 911 answers the 911 call (or call received date and time), processes the information, and subsequently dispatches departmental units.

Turnout Time

Turnout time is the element of time that is measured between the time the unit is dispatched to the emergency incident, and the time when the unit is en route to the call.

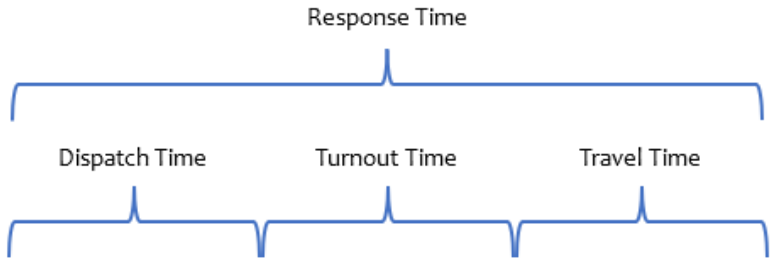
Travel Time

Travel time is the element of time between when a unit went en route, or began to travel to the incident, and the unit's arrival on scene.

Response Time

Total response time is the total time required to arrive on scene beginning with 911 answering the phone request for service and the time that the unit arrives on scene.

Figure 1: Performance Time Interval Measurements



Incident Number	Call Type	Unit ID	Call Received Date and Time	Unit Dispatch Date and Time	Unit En Route Date and Time	Unit Arrival Date and Time	Unit Clear Date and Time
24-9458	Fall	AMB1	2024-12-30 18:19:35	2024-12-30 18:20:08	2024-12-30 18:21:01	2024-12-30 18:26:36	2024-12-30 18:58:44
24-9458	Fall	ENG1	2024-12-30 18:19:35	2024-12-30 18:21:19	2024-12-30 18:22:07	2024-12-30 18:27:47	2024-12-30 18:30:44
24-9459	Vehicle Fire	AMB1	2024-12-31 05:30:14	2024-12-31 05:31:26	2024-12-31 05:32:33	2024-12-31 05:38:38	2024-12-31 05:59:42
24-9459	Vehicle Fire	ENG1	2024-12-31 05:30:14	2024-12-31 05:31:26	2024-12-31 05:32:41	2024-12-31 05:37:32	2024-12-31 06:52:42
24-9459	Vehicle Fire	T2	2024-12-31 05:30:14	2024-12-31 05:31:40	2024-12-31 05:33:37	2024-12-31 05:39:19	2024-12-31 06:59:36
24-9460	MVA	AMB1	2024-12-31 10:33:57	2024-12-31 10:35:09	2024-12-31 10:36:40	2024-12-31 10:46:32	2024-12-31 11:35:13
24-9460	MVA	ENG1	2024-12-31 10:33:57	2024-12-31 10:35:19	2024-12-31 10:37:59	2024-12-31 10:42:30	2024-12-31 11:42:26
24-9460	MVA	R2	2024-12-31 10:33:57	2024-12-31 10:35:10	2024-12-31 10:36:49	2024-12-31 10:41:56	2024-12-31 11:25:13

Response Time Continuum

Emergency Medical Services

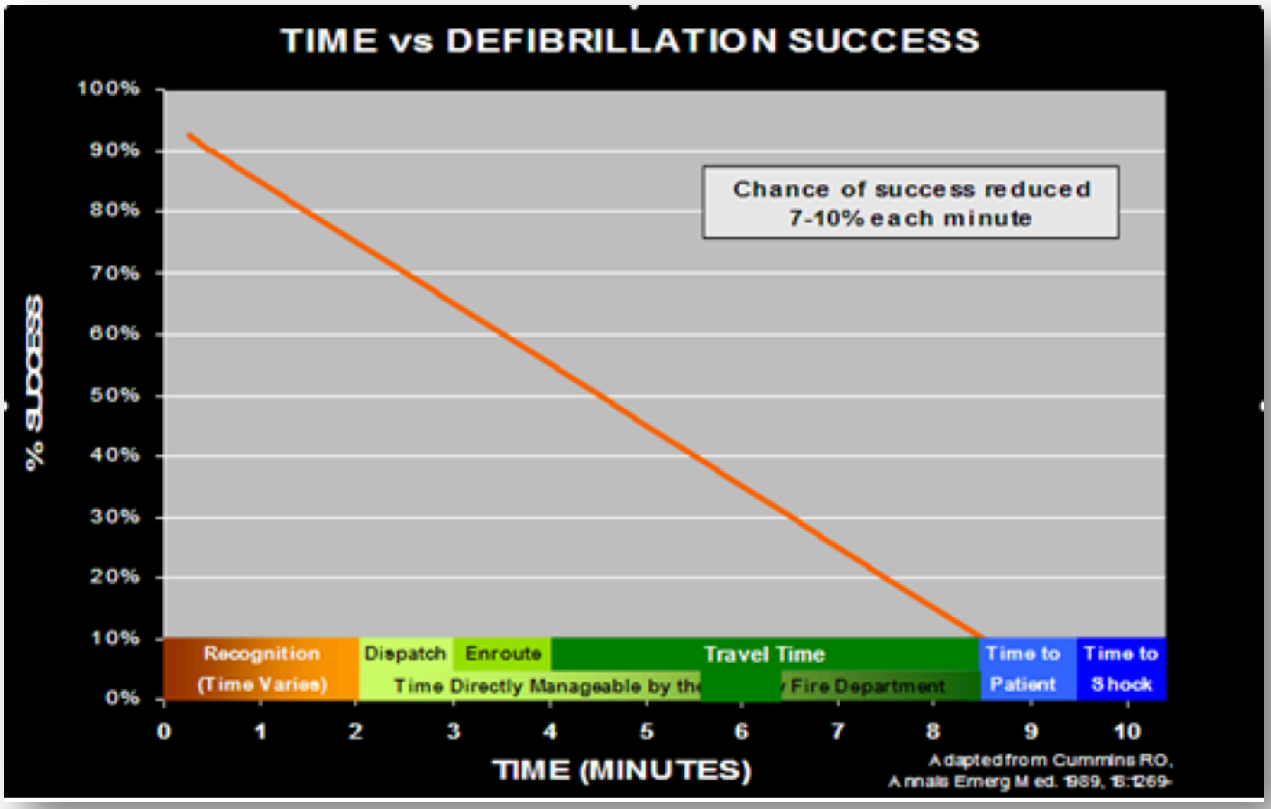
The effective response to EMS incidents has a direct correlation to the ability to respond within a specified period of time. However, unlike structure fires, responding to EMS incidents introduces considerable variability in the level of clinical acuity. From this perspective, the association of response time and clinical outcome varies depending on the severity of the injury or the illness. Research has demonstrated that the overwhelming majority of requests for EMS are not time sensitive between five minutes and 11 minutes for emergency responses and 13 minutes for non-emergency responses.[1] The 12-minute upper threshold is only the upper limit of the available research and is not a clinically significant time measure, as patients were not found to have a significantly different clinical outcome when the 12-minute threshold was exceeded.[2]

Out-of-hospital sudden cardiac arrest is the most identifiable and measured incident type for EMS. To demonstrate the relationship between response time and clinical outcome, a representation of the cascade of events and the time to defibrillation (shock) is presented in Figure 2[3] on the next page. The figure is representative of a sudden cardiac arrest that is presenting in a shockable heart rhythm such as Ventricular Fibrillation or Ventricular Tachycardia.

The American Heart Association (AHA) has determined that brain damage will begin to occur between four and six minutes, and become irreversible after ten minutes without intervention. Modern sudden cardiac arrest protocols recognize that high quality Cardio-Pulmonary Resuscitation (CPR) at the Basic Life Support (BLS) level is a quality intervention until defibrillation can be delivered in shockable rhythms.

[1] Blackwell, T.H., & Kaufman, J.S. (April 2002). Response time effectiveness: Comparison of response time and survival in an urban emergency medical services system. *Academic Emergency Medicine,* 9(4): 289-295.
[2] Blackwell, T.H., et al. (Oct-Dec 2009). Lack of association between prehospital response times and patient outcomes. *Prehospital Emergency Care,* 13(4): 444-450.
[3] Olathe Fire Department. (2012). Adapted from Community Risk and Emergency Services Analysis: Standard of Cover. Olathe, Kansas: Author.

Figure 2: Cascade of Events for Sudden Cardiac Arrest with Shockable Rhythm

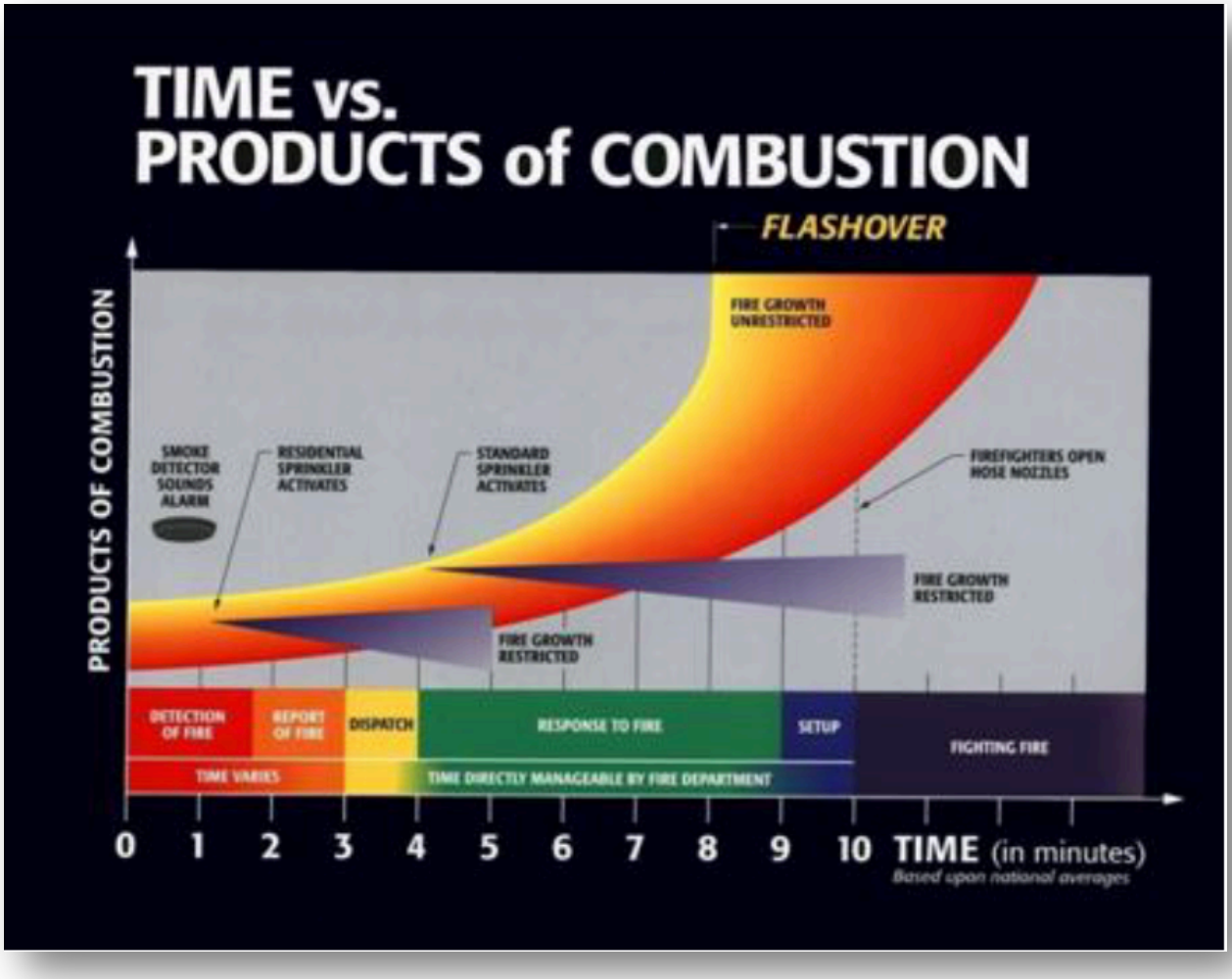


Fire Related Services

The number one priority with structural fire incidents is to save lives followed by the minimization of property damage. A direct relationship exists between the timeliness of the response and the survivability of unprotected occupants and property damage. The most identifiable point of fire behavior is flashover.

Flashover is the point in fire growth where the contents of an entire area, including the smoke, reach their ignition temperature, resulting in a rapid-fire growth rendering the area un-survivable by civilians and untenable for firefighters. Best practices would result in the fire department arriving and attacking the fire prior to the point of flashover. A representation of the traditional time temperature curve and the cascade of events is provided in Figure 3.[4]

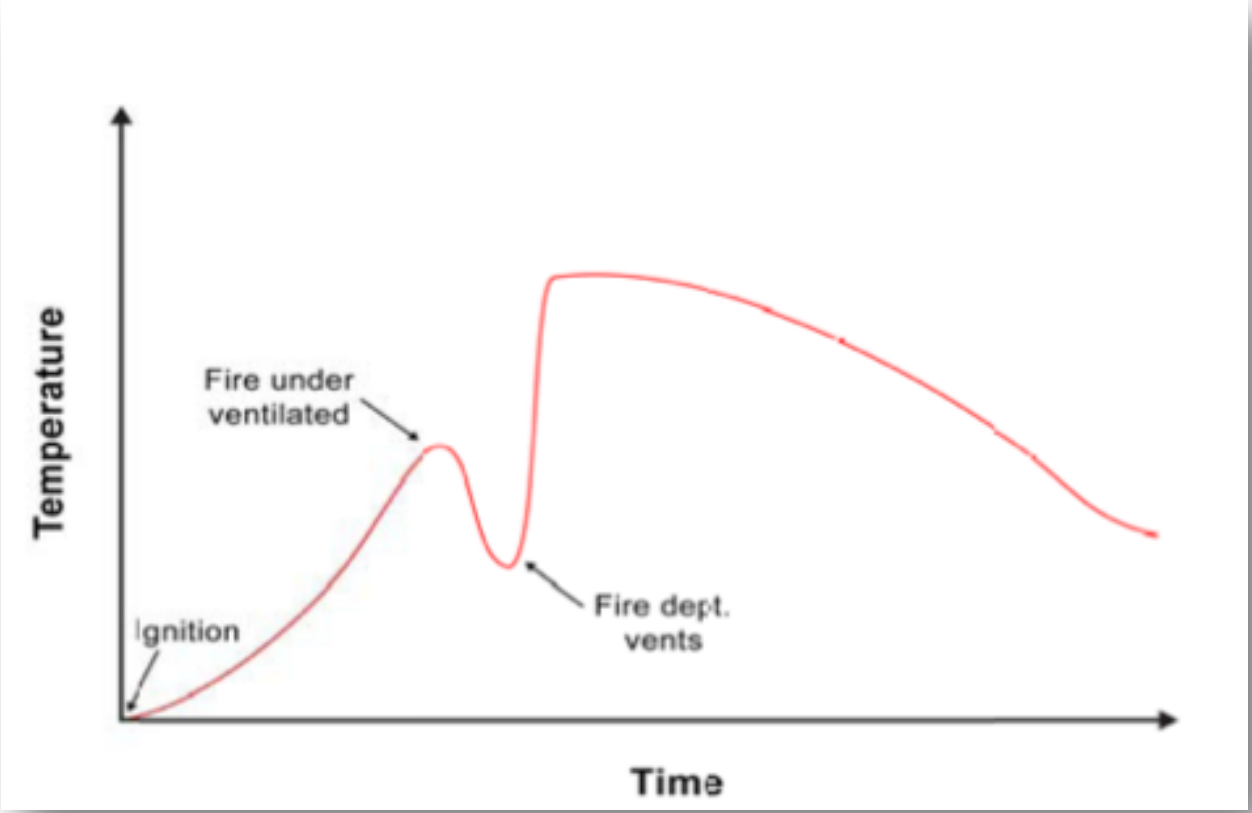
Figure 3: Example of Traditional Time Temperature Curve



[4] Example of Traditional Time Temperature Curve. Retrieved at http://www.usfa.fema.gov/downloads/pdf/coffee-break/time-vs-products-of-combustion.pdf

Recent studies by Underwriter's Laboratories (UL) have found that in compartment fires such as structure fires, flashover occurs within four minutes in modern fire environment. In addition, the UL research has identified an updated time temperature curve due to fires being ventilation-controlled rather than fuel-controlled as represented in the traditional time temperature curve. While this ventilation-controlled environment continues to provide a high risk to unprotected occupants to smoke and high heat, it does provide some advantage to property conservation efforts, as water may be applied to the fire prior to ventilation and the subsequent flashover. An example of UL's ventilation-controlled time temperature curve is provided in Figure 4.[5]

Figure 4: Ventilation-Controlled Time Temperature Curve



[5] UL/NIST Ventilation Controlled Time Temperature Curve. Retrieved from http://www.nist.gov/fire/fire_behavior.cfm

First Arriving Unit Performance

The analyses in this section focus on performance times related to dispatch (or alarm processing), turnout, travel, and response times, as follows (refer back to Figure 1 for visual representation):

"Dispatch Time" was calculated as Unit Dispatch Date and Time minus Call Received Date and Time
"Turnout Time" was calculated as Unit Enroute Date and Time minus Unit Dispatch Date and Time
"Travel Time" was calculated as Unit Arrival Date and Time minus Unit Enroute Date and Time
"Response Time" was calculated as Unit Arrival Date and Time minus Call Received Date and Time

"Response Time" may also be calculated by summing relevant dispatch, turnout, and travel times, and "Average Response Time" may be derived by summing relevant average dispatch, turnout, and travel times, but only when the sample data used during calculation of the outcomes are identical for all three outcomes.

Average performance times and performance times at the 90th percentile are reported in this section. The 90th percentile is presented as a more conservative and reliable measure of performance, as this measure is often more robust, or less influenced by outliers, than measures of central tendency such as the average. Best practice is to measure at the 90th percentile. In other words, 90% of all performance is captured, expecting that 10% of the time the department may experience abnormal conditions that would typically be considered outliers. For example, if the department were to report an *average* response time of six minutes, then in a normally distributed set of data, half of the responses would be longer than six minutes and half of the responses would be shorter than six minutes. Utilizing six minutes as an example again, a 90th *percentile value* of six minutes communicates that 9 out of 10 times, the department performance is six minutes or better (faster) and is therefore more predictable and more clearly articulated to policy makers and the community. Note, however, that the sum of the 90th percentile values for dispatch, turnout, and travel times is not equivalent to the 90th percentile response time. See the Appendix section for additional information related to the calculation of these metrics, and the restriction to calculation for only sample sizes containing at least ten observations.

Analyses of performance times focused on emergency (lights and sirens) responses from CGFD's first arriving primary front-line units for all unique calls. Priority status was based on either the "Basic Response Mode To Scene (FD1.70)" variable from the RMS/NFIRS data file, or the "Response Mode To Scene (eResponse.23)" variable from the ePCR/NEMSIS data file, wherein the value of "Lights and Siren Used" was considered to represent emergency responses. CGFD units considered by department leadership to be primary front-line units appropriate for inclusion in performance time analyses included ambulance units CGAMB1, CGAMB2, and CGAMB3, brush truck CGB2, engines CGE1 and CGE4, ladder trucks CGL1 and CGL2, and tender CGE3.

During the audit and exclusion process, calculated times with negative or zero values were excluded from all related analyses, and calculated times considered to be outliers were also excluded from all related analyses, as applicable (see Appendix for more details).

Average and 90th percentile dispatch, turnout, travel, and response times by CAD program and RMS/NFIRS city are presented in Table 5 and Table 6, respectively. Average dispatch, turnout, travel, and response times by CAD program for calls within CGFD's jurisdiction are additionally depicted in Figure 5. Lastly, 90th percentile travel times by RMS/NFIRS city and unit type for calls within CGFD's jurisdiction are presented in Table 7.

Table 5: Average Performance Times by CAD Program and RMS/NFIRS City – First Arriving CGFD Units in CGFD's Jurisdiction

CAD Program and RMS/NFIRS City[1]	Dispatch Time (Minutes)	Turnout Time (Minutes)	Travel Time (Minutes)	Response Time (Minutes)	Sample Size[2]
EMS	**2.7**	**1.7**	**6.1**	**10.1**	**1,616**
Cottage Grove	2.6	1.8	5.4	9.3	1,197
Newport	3.1	1.8	8.3	12.8	200
Saint Paul Park	2.4	1.6	7.5	11.0	196
Township of Grey Cloud Island	2.7	1.3	12.1	15.4	23
Fire	**2.8**	**2.4**	**5.1**	**9.8**	**252**
Hazmat	**3.0**	**2.3**	**4.7**	**9.7**	**18**
Rescue	**2.2**	**2.7**	**3.2**	**8.1**	**3**
Total Cottage Grove	**2.6**	**1.9**	**5.4**	**9.4**	**1,470**
Total All	**2.7**	**1.8**	**6.0**	**10.0**	**1,889**

[1]Metrics by RMS/NFIRS city are reported individually for EMS calls only, as CGFD units are first due to all fire, hazmat, and rescue calls in the RMS/NFIRS city value of Cottage Grove only.
[2]Sample sizes reflect the number of responses to emergency calls made by first arriving primary front-line units assigned to CGFD; due to missing or excluded time data, sample sizes corresponding to individual table metrics may be smaller.

Table 6: 90th Percentile Performance Times by CAD Program and RMS/NFIRS City – First Arriving CGFD Units in CGFD's Jurisdiction

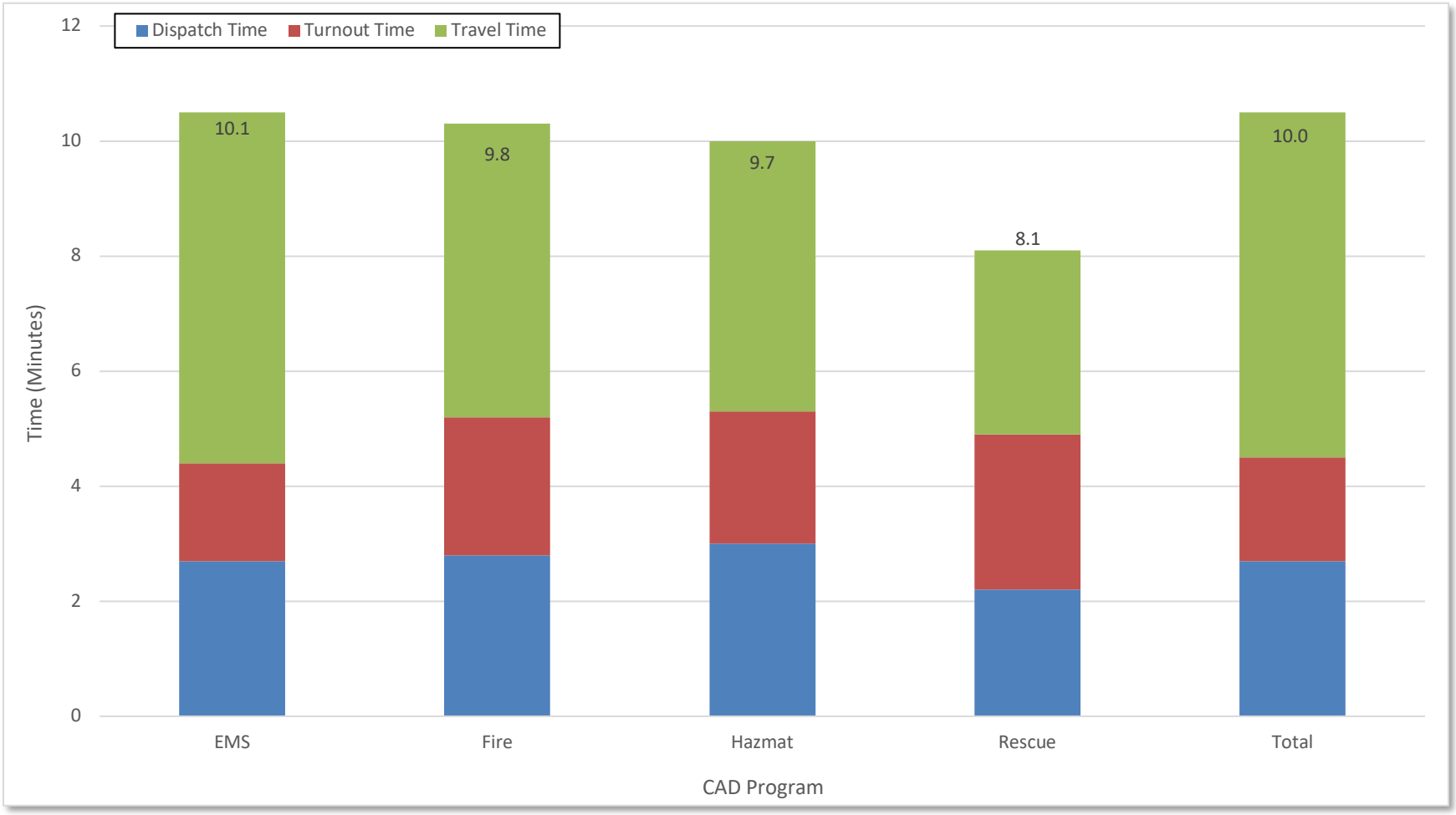
CAD Program and RMS/NFIRS City[1]	Dispatch Time (Minutes)	Turnout Time (Minutes)	Travel Time (Minutes)	Response Time (Minutes)	Sample Size[2]
EMS	**4.2**	**2.9**	**9.5**	**14.5**	**1,616**
Cottage Grove	4.2	3.0	8.5	13.8	1,197
Newport	4.8	2.9	10.4	16.3	200
Saint Paul Park	3.6	2.8	11.5	15.2	196
Township of Grey Cloud Island	5.2	--	15.5	20.3	23
Fire	**4.6**	**3.7**	**8.2**	**13.0**	**252**
Hazmat	**5.7**	**4.2**	**7.7**	**12.9**	**18**
Rescue	--	--	--	--	**3**
Total Cottage Grove	**4.3**	**3.2**	**8.4**	**13.7**	**1,470**
Total All	**4.3**	**3.1**	**9.3**	**14.3**	**1,889**

[1]Metrics by RMS/NFIRS city are reported individually for EMS calls only, as CGFD units are first due to all fire, hazmat, and rescue calls in the RMS/NFIRS city value of Cottage Grove only.
[2]Sample sizes reflect the number of responses to emergency calls made by first arriving primary front-line units assigned to CGFD; due to missing or excluded time data, sample sizes corresponding to individual table metrics may be smaller.

Table 7: 90th Percentile Travel Times by RMS/NFIRS City and Unit Type – First Arriving CGFD Units in CGFD's Jurisdiction

RMS/NFIRS City	Unit Type	Travel Time (Minutes)	Number of First Arrivals	Number of First Arrivals with Travel Times
Cottage Grove	Ambulance	8.4	1,197	1,193
	Brush Truck	--	3	3
	Engine	8.3	237	235
	Ladder Truck	8.6	32	32
	Tender	--	1	1
	Total	**8.4**	**1,470**	**1,464**
All	Ambulance	9.5	1,614	1,610
	Brush Truck	--	3	3
	Engine	8.5	239	237
	Ladder Truck	8.6	32	32
	Tender	--	1	1
	Total	**9.3**	**1,889**	**1,883**

Figure 5: Average Performance Times by CAD Program – First Arriving CGFD Units in CGFD's Jurisdiction[1]



[1]The values appearing above or on the stacked columns represent the average response times, as reported in the companion table, which were calculated using all relevant, non-excluded calculated time values. That is, they do not represent the sums of the average dispatch, turnout, and travel times because the sets of records with non-excluded calculated time values available for analysis were not identical across all four metrics. See the Appendix section for more details related to the exclusion of calculated performance time values.

CONCENTRATION STUDY

Community Demand

During the 2024 reporting period, and based on classifications of CAD incident types into program areas, community demand from all jurisdictions for CGFD services included calls related to the program areas of EMS (*n*=4,346; 88.2%), fire (*n*=542; 11.0%), hazmat (*n*=28; 0.6%), and rescue (*n*=14; 0.3%; Figure 6; Table 8). Requests for service from the community across all programs during 2024 totaled 4,930, averaging 13.5 calls per day.

Within CGFD's jurisdiction (i.e., includes the RMS/NFIRS city value of Cottage Grove for all EMS, fire, hazmat, and rescue calls, and additionally the RMS/NFIRS city values of Newport, Saint Paul Park, and Township of Grey Cloud Island for EMS calls), community demand totaled 4,212 calls, averaging 11.5 calls per day (Table 8; 88.7% EMS, 10.5% fire, 0.5% hazmat, and 0.2% rescue calls). Community demand outside of CGFD's jurisdiction totaled 718 calls, averaging 2.0 calls per day (Table 8; 84.8% EMS, 13.6% fire, 0.7% hazmat, and 0.8% rescue calls). Table 9 presents call volume data by CAD program, RMS/NFIRS jurisdiction, and RMS/NFIRS city.

Figure 6: Percentage of Total Calls by CAD Program – All Jurisdictions

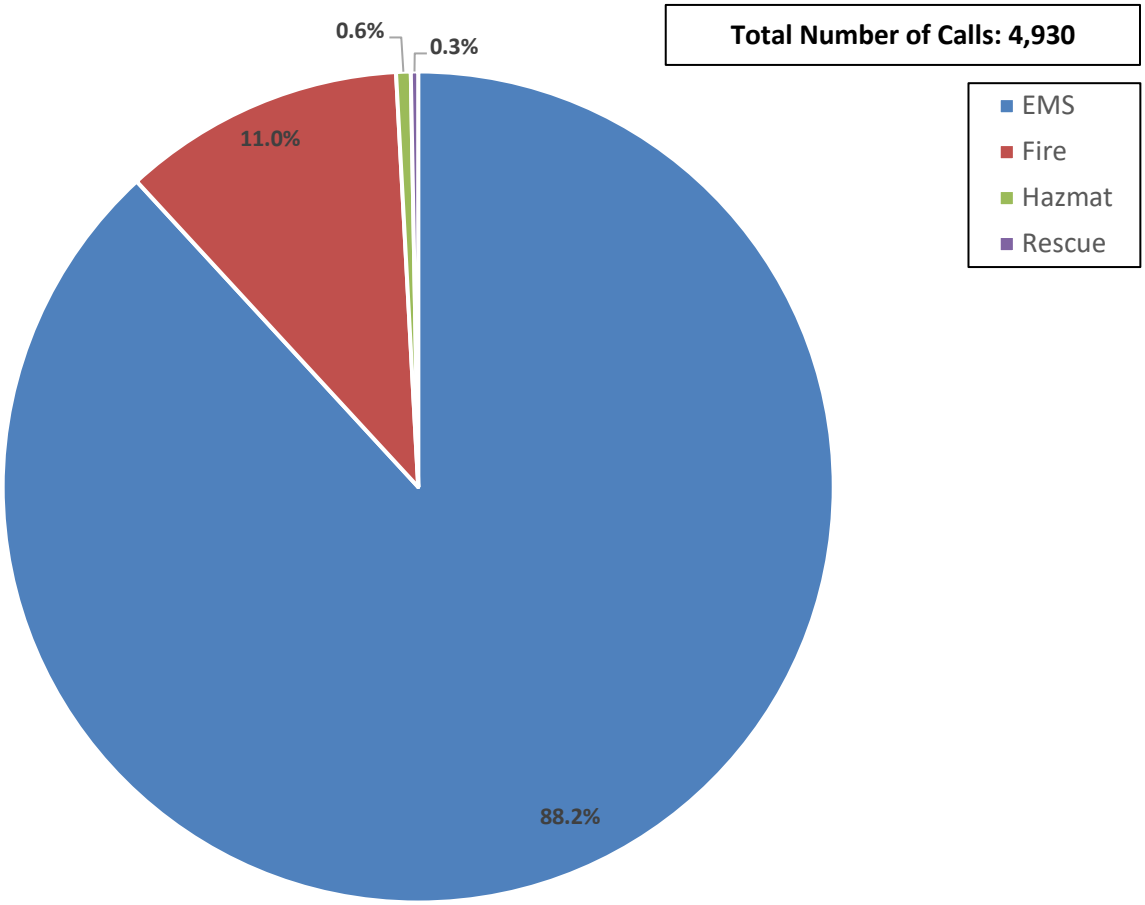


Table 8: Number of Calls by RMS/NFIRS Jurisdiction, CAD Program, and CAD Call Type

CAD Program and Call Type[2]	RMS/NFIRS Jurisdiction[1]								
	Within CGFD			Outside of CGFD			All		
	Number of Calls	Average Calls per Day	Call Percentage	Number of Calls	Average Calls per Day	Call Percentage	Number of Calls	Average Calls per Day	Call Percentage
EMS	**3,737**	**10.2**	**88.7**	**609**	**1.7**	**84.8**	**4,346**	**11.9**	**88.2**
Breathing Problem	338	0.9	8.0	48	0.1	6.7	386	1.1	7.8
Cardiac and Stroke	425	1.2	10.1	65	0.2	9.1	490	1.3	9.9
Fall and Injury	809	2.2	19.2	117	0.3	16.3	926	2.5	18.8
Illness and Other	1,681	4.6	39.9	225	0.6	31.3	1,906	5.2	38.7
Mutual Aid	4	< 0.1	0.1	43	0.1	6.0	47	0.1	1.0
MVA	177	0.5	4.2	73	0.2	10.2	250	0.7	5.1
Overdose and Psychiatric	62	0.2	1.5	4	< 0.1	0.6	66	0.2	1.3
Seizure and Unconsciousness	241	0.7	5.7	34	0.1	4.7	275	0.8	5.6
Fire	**444**	**1.2**	**10.5**	**98**	**0.3**	**13.6**	**542**	**1.5**	**11.0**
Brush Fire	5	< 0.1	0.1	1	< 0.1	0.1	6	< 0.1	0.1
Fire Alarm	224	0.6	5.3	21	0.1	2.9	245	0.7	5.0
Fire Other	63	0.2	1.5	6	< 0.1	0.8	69	0.2	1.4
Hazardous Condition	85	0.2	2.0	12	< 0.1	1.7	97	0.3	2.0
Mutual Aid	1	< 0.1	< 0.1	18	< 0.1	2.5	19	0.1	0.4
Outside Fire	18	< 0.1	0.4	0	0.0	0.0	18	< 0.1	0.4
Structure Fire	30	0.1	0.7	37	0.1	5.2	67	0.2	1.4
Vehicle Fire	18	< 0.1	0.4	3	< 0.1	0.4	21	0.1	0.4
Hazmat	**23**	**0.1**	**0.5**	**5**	**< 0.1**	**0.7**	**28**	**0.1**	**0.6**
Hazmat	23	0.1	0.5	5	< 0.1	0.7	28	0.1	0.6
Rescue	**8**	**< 0.1**	**0.2**	**6**	**< 0.1**	**0.8**	**14**	**< 0.1**	**0.3**
Rescue	8	< 0.1	0.2	6	< 0.1	0.8	14	< 0.1	0.3
Total	**4,212**	**11.5**	**100.0**	**718**	**2.0**	**100.0**	**4,930**	**13.5**	**100.0**

[1]CGFD's jurisdiction includes the RMS/NFIRS city value of Cottage Grove for all EMS, fire, hazmat, and rescue calls, and additionally the RMS/NFIRS city values of Newport, Saint Paul Park, and Township of Grey Cloud Island for EMS calls.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.

Table 9: Number of Calls by CAD Program, RMS/NFIRS Jurisdiction, and RMS/NFIRS City

CAD Program[1]	RMS/NFIRS Jurisdiction[2]	RMS/NFIRS City	Number of Calls	Average Calls per Day	Call Percentage
EMS	Within CGFD	Cottage Grove	2,693	7.4	54.6
		Newport	519	1.4	10.5
		Saint Paul Park	467	1.3	9.5
		Township of Grey Cloud Island	58	0.2	1.2
		Total	**3,737**	**10.2**	**75.8**
	Outside of CGFD	Burnsville	14	< 0.1	0.3
		Denmark Township	1	< 0.1	< 0.1
		Hastings	3	< 0.1	0.1
		Inver Grove Heights	25	0.1	0.5
		Maplewood	0	0.0	0.0
		Oakdale	1	< 0.1	< 0.1
		Saint Paul	1	< 0.1	< 0.1
		South Saint Paul	6	< 0.1	0.1
		West Saint Paul	2	< 0.1	< 0.1
		Woodbury	556	1.5	11.3
		Total	**609**	1.7	12.4
	Total		**4,346**	**11.9**	**88.2**
Fire	Within CGFD	Cottage Grove	444	1.2	9.0
		Total	**444**	**1.2**	**9.0**
	Outside of CGFD	Burnsville	2	< 0.1	< 0.1
		Denmark Township	4	< 0.1	0.1
		Hastings	18	< 0.1	0.4
		Inver Grove Heights	0	0.0	0.0
		Maplewood	1	< 0.1	< 0.1
		Newport	6	< 0.1	0.1
		Oakdale	0	0.0	0.0
		Saint Paul	0	0.0	0.0
		Saint Paul Park	6	< 0.1	0.1
		South Saint Paul	0	0.0	0.0
		Township of Grey Cloud Island	0	0.0	0.0
		West Saint Paul	0	0.0	0.0
		Woodbury	61	0.2	1.2
		Total	**98**	0.3	2.0
	Total		**542**	**1.5**	**11.0**
Hazmat	Within CGFD	Cottage Grove	23	0.1	0.5
		Total	**23**	**0.1**	**0.5**
	Outside of CGFD	Burnsville	0	0.0	0.0
		Denmark Township	0	0.0	0.0
		Hastings	0	0.0	0.0
		Inver Grove Heights	0	0.0	0.0

CAD Program[1]	RMS/NFIRS Jurisdiction[2]	RMS/NFIRS City	Number of Calls	Average Calls per Day	Call Percentage
Hazmat	Outside of CGFD	Maplewood	0	0.0	0.0
		Newport	1	< 0.1	< 0.1
		Oakdale	0	0.0	0.0
		Saint Paul	0	0.0	0.0
		Saint Paul Park	0	0.0	0.0
		South Saint Paul	0	0.0	0.0
		Township of Grey Cloud Island	0	0.0	0.0
		West Saint Paul	0	0.0	0.0
		Woodbury	4	< 0.1	0.1
		Total	**5**	< 0.1	0.1
	Total		**28**	**0.1**	**0.6**
Rescue	Within CGFD	Cottage Grove	8	< 0.1	0.2
		Total	**8**	**< 0.1**	**0.2**
	Outside of CGFD	Burnsville	0	0.0	0.0
		Denmark Township	0	0.0	0.0
		Hastings	0	0.0	0.0
		Inver Grove Heights	0	0.0	0.0
		Maplewood	0	0.0	0.0
		Newport	3	< 0.1	0.1
		Oakdale	0	0.0	0.0
		Saint Paul	0	0.0	0.0
		Saint Paul Park	1	< 0.1	< 0.1
		South Saint Paul	0	0.0	0.0
		Township of Grey Cloud Island	0	0.0	0.0
		West Saint Paul	0	0.0	0.0
		Woodbury	2	< 0.1	0.0
		Total	**6**	**< 0.1**	0.1
	Total		**14**	**< 0.1**	**0.3**
All	Within CGFD[2]	Cottage Grove	3,168	8.7	64.3
		Newport	519	1.4	10.5
		Saint Paul Park	467	1.3	9.5
		Township of Grey Cloud Island	58	0.2	1.2
		Total	**4,212**	**11.5**	**85.4**
	Outside of CGFD	Burnsville	16	< 0.1	0.3
		Denmark Township	5	< 0.1	0.1
		Hastings	21	0.1	0.4
		Inver Grove Heights	25	0.1	0.5
		Maplewood	1	< 0.1	< 0.1
		Newport	10	< 0.1	0.2
		Oakdale	1	< 0.1	< 0.1
		Saint Paul	1	< 0.1	< 0.1
		Saint Paul Park	7	< 0.1	0.1
		South Saint Paul	6	< 0.1	0.1

CAD Program[1]	RMS/NFIRS Jurisdiction[2]	RMS/NFIRS City	Number of Calls	Average Calls per Day	Call Percentage
All	Outside of CGFD	Township of Grey Cloud Island	0	0.0	0.0
		West Saint Paul	2	< 0.1	< 0.1
		Woodbury	623	1.7	12.6
		Total	**718**	**2.0**	**14.6**
	Total		**4,930**	**13.5**	**100.0**

[1]Classifications of incident types from the data file into program category are presented in the Appendix.
[2]CGFD's jurisdiction includes the RMS/NFIRS city value of Cottage Grove for all EMS, fire, hazmat, and rescue calls, and additionally the RMS/NFIRS city values of Newport, Saint Paul Park, and Township of Grey Cloud Island for EMS calls.

Table 10 and Table 11 present additional call volume details by RMS/NFIRS city and CAD call type for EMS calls within and outside of CGFD's jurisdiction, respectively. Only RMS/NFIRS city values and CAD call type values for which there was at least one call received during 2024 are reported in Table 11.

Table 10: Number of Calls by RMS/NFIRS City and CAD Call Type – EMS Calls in CGFD's Jurisdiction[1]

RMS/NFIRS City	CAD Call Type[2]	Number of Calls	Average Calls per Day	Call Percentage
Cottage Grove	Breathing Problem	248	0.7	6.6
	Cardiac and Stroke	307	0.8	8.2
	Fall and Injury	607	1.7	16.2
	Illness and Other	1,165	3.2	31.2
	Mutual Aid	4	< 0.1	0.1
	MVA	125	0.3	3.3
	Overdose and Psychiatric	47	0.1	1.3
	Seizure and Unconsciousness	190	0.5	5.1
	Total	**2,693**	**7.4**	**72.1**
Newport	Breathing Problem	44	0.1	1.2
	Cardiac and Stroke	67	0.2	1.8
	Fall and Injury	80	0.2	2.1
	Illness and Other	261	0.7	7.0
	Mutual Aid	0	0.0	0.0
	MVA	39	0.1	1.0
	Overdose and Psychiatric	9	< 0.1	0.2
	Seizure and Unconsciousness	19	0.1	0.5
	Total	**519**	**1.4**	**13.9**
Saint Paul Park	Breathing Problem	44	0.1	1.2
	Cardiac and Stroke	47	0.1	1.3
	Fall and Injury	116	0.3	3.1
	Illness and Other	222	0.6	5.9
	Mutual Aid	0	0.0	0.0
	MVA	9	< 0.1	0.2
	Overdose and Psychiatric	6	< 0.1	0.2
	Seizure and Unconsciousness	23	0.1	0.6
	Total	**467**	**1.3**	**12.5**
Township of Grey Cloud Island	Breathing Problem	2	< 0.1	0.1
	Cardiac and Stroke	4	< 0.1	0.1
	Fall and Injury	6	< 0.1	0.2
	Illness and Other	33	0.1	0.9
	Mutual Aid	0	0.0	0.0
	MVA	4	< 0.1	0.1
	Overdose and Psychiatric	0	0.0	0.0
	Seizure and Unconsciousness	9	< 0.1	0.2
	Total	**58**	**0.2**	**1.6**

RMS/NFIRS City	CAD Call Type[2]	Number of Calls	Average Calls per Day	Call Percentage
All	Breathing Problem	338	0.9	9.0
	Cardiac and Stroke	425	1.2	11.4
	Fall and Injury	809	2.2	21.6
	Illness and Other	1,681	4.6	45.0
	Mutual Aid	4	< 0.1	0.1
	MVA	177	0.5	4.7
	Overdose and Psychiatric	62	0.2	1.7
	Seizure and Unconsciousness	241	0.7	6.4
	Total	**3,737**	**10.2**	**100.0**

[1]CGFD's jurisdiction includes the RMS/NFIRS city value of Cottage Grove for all EMS, fire, hazmat, and rescue calls, and additionally the RMS/NFIRS city values of Newport, Saint Paul Park, and Township of Grey Cloud Island for EMS calls.

[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.

Table 11: Number of Calls by RMS/NFIRS City and CAD Call Type – EMS Calls in Outside Jurisdictions

RMS/NFIRS City	CAD Call Type[1]	Number of Calls	Average Calls per Day	Call Percentage
Burnsville	Illness and Other	3	< 0.1	0.5
	Mutual Aid	10	< 0.1	1.6
	Overdose and Psychiatric	1	< 0.1	0.2
	Total	**14**	**< 0.1**	**2.3**
Denmark Township	Fall and Injury	1	< 0.1	0.2
	Total	**1**	**< 0.1**	**0.2**
Hastings	Mutual Aid	3	< 0.1	0.5
	Total	**3**	**< 0.1**	**0.5**
Inver Grove Heights	Breathing Problem	1	< 0.1	0.2
	Illness and Other	1	< 0.1	0.2
	Mutual Aid	23	0.1	3.8
	Total	**25**	**0.1**	**4.1**
Oakdale	Illness and Other	1	< 0.1	0.2
	Total	**1**	**< 0.1**	**0.2**
Saint Paul	Seizure and Unconsciousness	1	< 0.1	0.2
	Total	**1**	**< 0.1**	**0.2**
South Saint Paul	Illness and Other	1	< 0.1	0.2
	Mutual Aid	5	< 0.1	0.8
	Total	**6**	**< 0.1**	**1.0**
West Saint Paul	Mutual Aid	2	< 0.1	0.3
	Total	**2**	**< 0.1**	**0.3**
Woodbury	Breathing Problem	47	0.1	7.7
	Cardiac and Stroke	65	0.2	10.7
	Fall and Injury	116	0.3	19.0
	Illness and Other	219	0.6	36.0
	MVA	73	0.2	12.0
	Overdose and Psychiatric	3	< 0.1	0.5
	Seizure and Unconsciousness	33	0.1	5.4
	Total	**556**	**1.5**	**91.3**
All	Breathing Problem	48	0.1	7.9
	Cardiac and Stroke	65	0.2	10.7
	Fall and Injury	117	0.3	19.2
	Illness and Other	225	0.6	36.9
	Mutual Aid	43	0.1	7.1
	MVA	73	0.2	12.0
	Overdose and Psychiatric	4	< 0.1	0.7
	Seizure and Unconsciousness	34	0.1	5.6
	Total	**609**	**1.7**	**100.0**

[1]Classifications of incident types from the data file into program and call type category are presented in the Appendix.

Table 12 and Table 13 present additional call volume details by RMS/NFIRS city, CAD program, and CAD call type for fire, hazmat, and rescue calls within and outside of CGFD's jurisdiction, respectively. Only RMS/NFIRS city values and CAD program and call type values for which there was at least one call received during 2024 are reported in Table 13.

Table 12: Number of Calls by RMS/NFIRS City, CAD Program, and CAD Call Type – Fire, Hazmat, and Rescue Calls in CGFD's Jurisdiction

RMS/NFIRS City	CAD Program and Call Type[1]	Number of Calls	Average Calls per Day	Call Percentage
Cottage Grove	**Fire**	**444**	**1.2**	**93.5**
	Brush Fire	5	< 0.1	1.1
	Fire Alarm	224	0.6	47.2
	Fire Other	63	0.2	13.3
	Hazardous Condition	85	0.2	17.9
	Mutual Aid	1	< 0.1	0.2
	Outside Fire	18	< 0.1	3.8
	Structure Fire	30	0.1	6.3
	Vehicle Fire	18	< 0.1	3.8
	Hazmat	**23**	**0.1**	**4.8**
	Hazmat	23	0.1	4.8
	Rescue	**8**	**< 0.1**	**1.7**
	Rescue	8	< 0.1	1.7
	Total	**475**	**1.3**	**100.0**

[1]Classifications of incident types from the data file into program and call type category are presented in the Appendix.

Table 13: Number of Calls by RMS/NFIRS City, CAD Program, and CAD Call Type – Fire, Hazmat, and Rescue Calls in Outside Jurisdictions

RMS/NFIRS City	CAD Program and Call Type[1]	Number of Calls	Average Calls per Day	Call Percentage
Burnsville	**Fire**	**2**	**< 0.1**	**1.8**
	Fire Other	2	< 0.1	1.8
	Total	**2**	**< 0.1**	**1.8**
Denmark Township	**Fire**	**4**	**< 0.1**	**3.7**
	Brush Fire	1	< 0.1	0.9
	Structure Fire	3	< 0.1	2.8
	Total	**4**	**< 0.1**	**3.7**
Hastings	**Fire**	**18**	**< 0.1**	**16.5**
	Fire Other	1	< 0.1	0.9
	Mutual Aid	17	< 0.1	15.6
	Total	**18**	**< 0.1**	**16.5**
Maplewood	**Fire**	**1**	**< 0.1**	**0.9**
	Mutual Aid	1	< 0.1	0.9
	Total	**1**	**< 0.1**	**0.9**
Newport	**Fire**	**6**	**< 0.1**	**5.5**
	Fire Other	1	< 0.1	0.9
	Structure Fire	4	< 0.1	3.7
	Vehicle Fire	1	< 0.1	0.9
	Hazmat	**1**	**< 0.1**	**0.9**
	Hazmat	1	< 0.1	0.9
	Rescue	**3**	**< 0.1**	**2.8**
	Rescue	3	< 0.1	2.8
	Total	**10**	**< 0.1**	**9.2**
Saint Paul Park	**Fire**	**6**	**< 0.1**	**5.5**
	Fire Other	1	< 0.1	0.9
	Structure Fire	5	< 0.1	4.6
	Rescue	**1**	**< 0.1**	**0.9**
	Rescue	1	< 0.1	0.9
	Total	**7**	**< 0.1**	**6.4**
Woodbury	**Fire**	**61**	**0.2**	**56.0**
	Fire Alarm	21	0.1	19.3
	Fire Other	1	< 0.1	0.9
	Hazardous Condition	12	< 0.1	11.0
	Structure Fire	25	0.1	22.9
	Vehicle Fire	2	< 0.1	1.8
	Hazmat	**4**	**< 0.1**	**3.7**
	Hazmat	4	< 0.1	3.7
	Rescue	**2**	**< 0.1**	**1.8**

RMS/NFIRS City	CAD Program and Call Type[1]	Number of Calls	Average Calls per Day	Call Percentage
Woodbury	Rescue	2	< 0.1	1.8
	Total	**67**	**0.2**	**61.5**
All	**Fire**	**98**	**0.3**	**89.9**
	Brush Fire	1	< 0.1	0.9
	Fire Alarm	21	0.1	19.3
	Fire Other	6	< 0.1	5.5
	Hazardous Condition	12	< 0.1	11.0
	Mutual Aid	18	< 0.1	16.5
	Structure Fire	37	0.1	33.9
	Vehicle Fire	3	< 0.1	2.8
	Hazmat	**5**	**< 0.1**	**4.6**
	Hazmat	5	< 0.1	4.6
	Rescue	**6**	**< 0.1**	**5.5**
	Rescue	6	< 0.1	5.5
	Total	**109**	**0.3**	**100.0**

[1]Classifications of incident types from the data file into program and call type category are presented in the Appendix.

Table 14 presents call volume metrics by RMS/NFIRS program and call type (i.e., rather than CAD program and call type) for all jurisdictions, and Table 15 presents call volume metrics by ePCR/NEMSIS call type and complaint, as available, for all jurisdictions.

Table 14: Number of Calls by RMS/NFIRS Program and Call Type – All Jurisdictions

RMS/NFIRS Program and Call Type[1]	Number of Calls	Average Calls per Day	Call Percentage
EMS	**3,490**	**9.5**	**70.8**
EMS	3,363	9.2	68.2
MVA	127	0.3	2.6
Fire	**1,390**	**3.8**	**28.2**
False Alarm & False Call	145	0.4	2.9
Good Intent Call	1,069	2.9	21.7
Hazardous Condition	38	0.1	0.8
Mutual Aid	39	0.1	0.8
Natural Vegetation Fire	5	< 0.1	0.1
Outside Rubbish Fire	5	< 0.1	0.1
Service Call	36	0.1	0.7
Severe Weather & Natural Disaster	3	< 0.1	0.1
Special Outside Fire	3	< 0.1	0.1
Structure Fire	36	0.1	0.7
Vehicle Fire	11	< 0.1	0.2
Hazmat	**49**	**0.1**	**1.0**
Hazmat	49	0.1	1.0
Rescue	**1**	**< 0.1**	**< 0.1**
Rescue	1	< 0.1	< 0.1
Total	**4,930**	**13.5**	**100.0**

[1]Classifications of incident types from the data file into program and call type category are presented in the Appendix.

Table 15: Number of Calls by ePCR/NEMSIS Call Type and Complaint – All Jurisdictions

ePCR/NEMSIS Call Type and Complaint[1]	Number of Calls	Average Calls per Day	Call Percentage
Breathing Problem	**351**	**1.0**	**7.1**
Breathing Problem	321	0.9	6.5
Choking	30	0.1	0.6
Cardiac and Stroke	**442**	**1.2**	**9.0**
Cardiac Arrest/Death	75	0.2	1.5
Chest Pain (Non-Traumatic)	129	0.4	2.6
Heart Problems/AICD	151	0.4	3.1
Stroke/CVA	78	0.2	1.6
Z-Cardiac Arrest - Possible DOA	9	< 0.1	0.2
Fall and Injury	**841**	**2.3**	**17.1**
Animal Bite	10	< 0.1	0.2
Assault/Battery/Abuse Victim	28	0.1	0.6
Burns/Explosion	2	< 0.1	< 0.1
Electrocution/Lightning	1	< 0.1	< 0.1
Eye Problem/Injury	5	< 0.1	0.1
Fall	643	1.8	13.0
Hemorrhage/Laceration	1	< 0.1	< 0.1
Pediatric - Trauma, Fall, MVA, GSW, Other.	2	< 0.1	< 0.1
Stab/Gunshot Wound/Penetrating Trauma	2	< 0.1	< 0.1
Traumatic Injury	48	0.1	1.0
Z-Bleeding	95	0.3	1.9
Z-Gunshot	3	< 0.1	0.1
Z-Stabbing	1	< 0.1	< 0.1
Fire-Related	**3**	**< 0.1**	**0.1**
Z-Structure Fire	3	< 0.1	0.1
Illness and Other	**1,446**	**4.0**	**29.3**
Abdominal Pain/Problems	126	0.3	2.6
Allergic Reaction/Stings	32	0.1	0.6
Back Pain (Non-Traumatic)	66	0.2	1.3
Carbon Monoxide/Hazmat/Inhalation/CBRN	10	< 0.1	0.2
Diabetic Problem	76	0.2	1.5
Headache	17	< 0.1	0.3
Heat/Cold Exposure	1	< 0.1	< 0.1
Medical Alarm	81	0.2	1.6
No Other Appropriate Choice	9	< 0.1	0.2
Pregnancy/Childbirth/Miscarriage	7	< 0.1	0.1
Sick Person	645	1.8	13.1
Unknown Problem/Person Down	115	0.3	2.3

ePCR/NEMSIS Call Type and Complaint[1]	Number of Calls	Average Calls per Day	Call Percentage
Well Person Check	5	< 0.1	0.1
Z-Assist Other Agency	255	0.7	5.2
Z-Assist Police with a Citizen	1	< 0.1	< 0.1
MVA	**170**	**0.5**	**3.4**
Automated Crash Notification	7	< 0.1	0.1
Motor Vehicle Crash	86	0.2	1.7
Traffic/Transportation Incident	6	< 0.1	0.1
Z-Auto vs. Pedestrian	71	0.2	1.4
Overdose and Psychiatric	**305**	**0.8**	**6.2**
Alcohol/Substance Abuse/Withdrawal	1	< 0.1	< 0.1
Overdose/Poisoning/Ingestion	43	0.1	0.9
Psychiatric Problem/Abnormal Behavior/Suicide Attempt	261	0.7	5.3
Rescue-Related	**4**	**< 0.1**	**0.1**
Drowning/Diving/SCUBA Accident	1	< 0.1	< 0.1
Industrial Accident/Inaccessible Incident/Other Entrapments (Non-Vehicle)	1	< 0.1	< 0.1
Z-Water Rescue	2	< 0.1	< 0.1
Seizure and Unconsciousness	**256**	**0.7**	**5.2**
Convulsions/Seizure	113	0.3	2.3
Syncope/near-fainting	1	< 0.1	< 0.1
Unconscious/Fainting/Near-Fainting	142	0.4	2.9
Not Applicable or Not Reported	**1,112**	**3.0**	**22.6**
Not Applicable or Not Reported	1,112	3.0	22.6
Total	**4,930**	**13.5**	**100.0**

[1]Classifications of incident types from the data file into program and call type category are presented in the Appendix. Complaint values are presented verbatim from the data file.

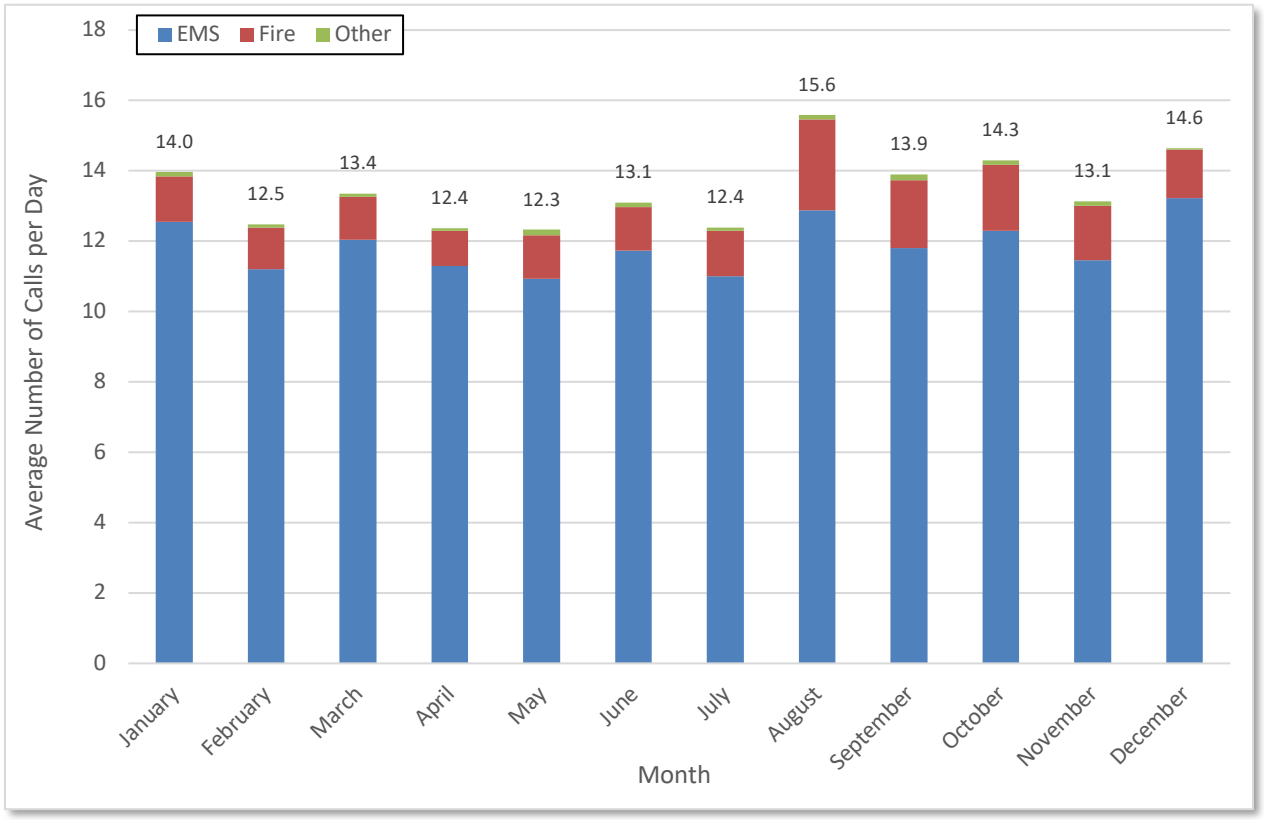
Temporal analyses were conducted to evaluate patterns in community demands. These analyses are based on the 4,930 total requests for service received from the community across all jurisdictions during 2024, and examine the frequency of incidents by month, day of week, and hour of day. Program areas depicted in all figures were classified based on CAD incident types.

Overall, average requests per month ranged from a low of 12.3 calls per day in May to a high of 15.6 calls per day in August (Table 16; Figure 7). The three months with the most requests for service in descending order were: August (15.6 per day), December (14.6 per day), and October (14.3 per day). The three months with the fewest requests for service in ascending order were: May (12.3 per day), April (12.4 per day), and July (12.4 per day).

Table 16: Overall: Total Calls and Average Calls per Day by Month

Month	Number of Calls	Average Calls per Day	Call Percentage
January	433	14.0	8.8
February	362	12.5	7.3
March	414	13.4	8.4
April	371	12.4	7.5
May	382	12.3	7.7
June	393	13.1	8.0
July	384	12.4	7.8
August	483	15.6	9.8
September	417	13.9	8.5
October	443	14.3	9.0
November	394	13.1	8.0
December	454	14.6	9.2
Total	**4,930**	**13.5**	**100.0**

Figure 7: Overall: Average Calls per Day by Month



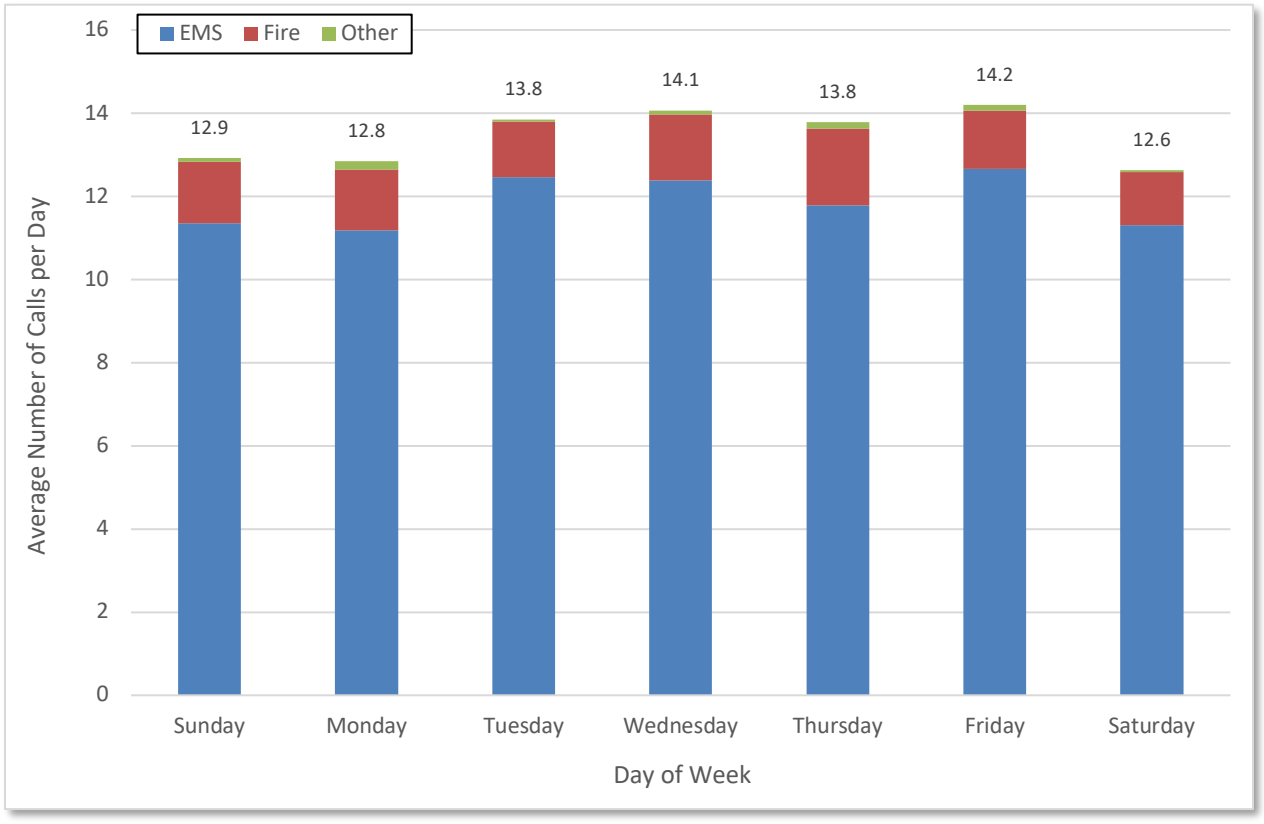
Similar analyses were conducted for requests by day of week (Table 17; Figure 8). The lowest average number of calls per day occurred on Saturday (12.6 per day), and the highest average number of calls per day occurred on Friday (14.2 per day).

Table 17: Overall: Total Calls and Average Calls per Day by Day of Week

Day of Week[1]	Number of Calls	Average Calls per Day	Call Percentage
Sunday	672	12.9	13.6
Monday	681	12.8	13.8
Tuesday	734	13.8	14.9
Wednesday	731	14.1	14.8
Thursday	717	13.8	14.5
Friday	738	14.2	15.0
Saturday	657	12.6	13.3
Total	**4,930**	**13.5**	**100.0**

[1]There were 53 Mondays and Tuesdays during 2024, and 52 of all other days of the week during 2024.

Figure 8: Overall: Average Calls per Day by Day of Week



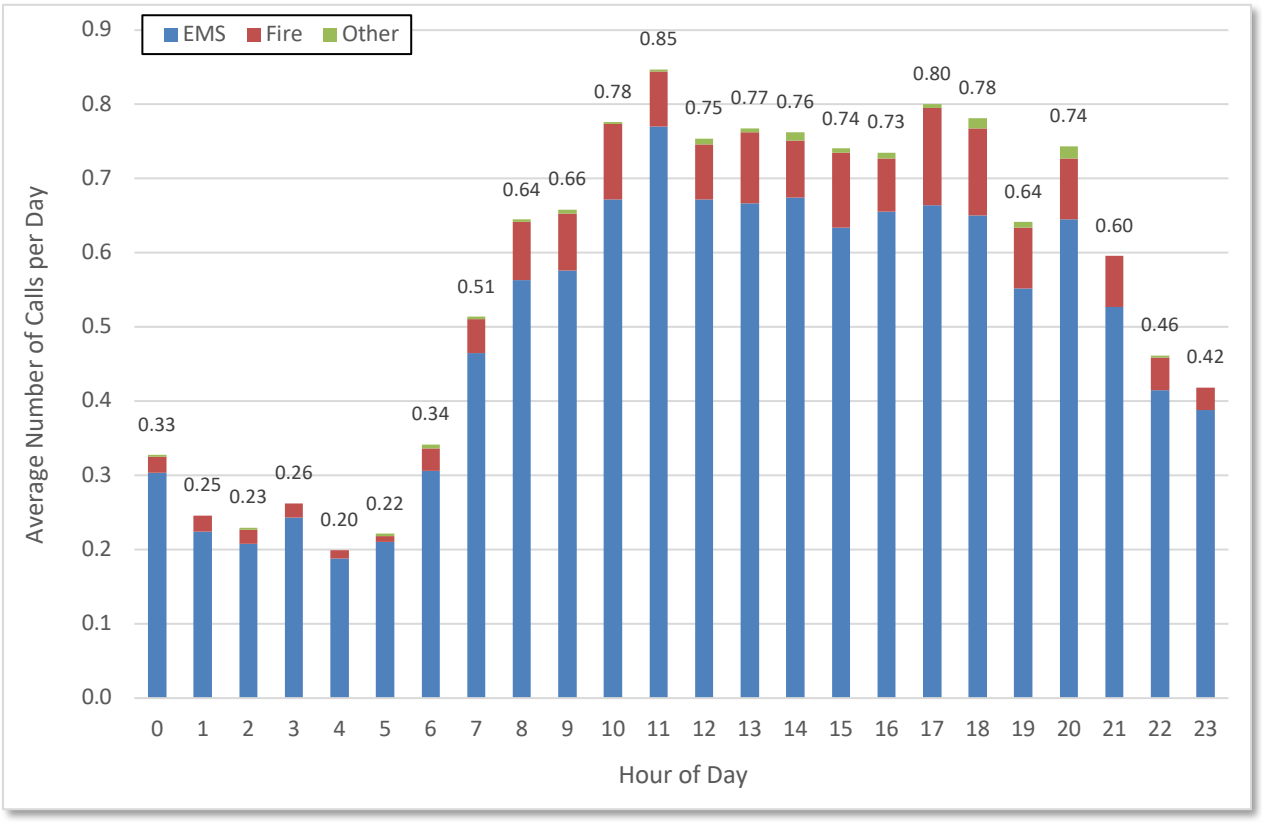
Overall demands were also evaluated by hour of the day (Table 18; Figure 9). Variability exists in the time of day that requests for services were received. Peak demand occurred at 1100 (0.85 average calls per day during that hour in 2024). The hours of the day with the lowest average number of calls per day (range 0.20 to 0.26) were between 0100 and 0500.

Table 18: Overall: Total Calls and Average Calls per Day by Hour of Day

Hour of Day	Number of Calls	Average Calls per Day	Call Percentage
0	120	0.33	2.4
1	90	0.25	1.8
2	84	0.23	1.7
3	96	0.26	1.9
4	73	0.20	1.5
5	81	0.22	1.6
6	125	0.34	2.5
7	188	0.51	3.8
8	236	0.64	4.8
9	241	0.66	4.9
10	284	0.78	5.8
11	310	0.85	6.3
12	276	0.75	5.6
13	281	0.77	5.7
14	279	0.76	5.7
15	271	0.74	5.5
16	269	0.73	5.5
17	293	0.80	5.9
18	286	0.78	5.8
19	235	0.64	4.8
20	272	0.74	5.5
21	218	0.60	4.4
22	169	0.46	3.4
23	153	0.42	3.1
Total	**4,930**	**13.5**	**100.0**

To provide a more granular understanding of the community's demand for services, this temporal analysis included the average number of calls per day by hour of day. In other words, when referring to Figure 9 below, the busiest hour was at 1100 with 310 calls occurring during that hour in 2024. The average number of calls per day for that hour is a daily average for the 310 calls if they were distributed equally across the year (i.e., 310/366 = 0.85).

Figure 9: Overall: Average Calls per Day by Hour of Day



Community Demand for Emergency Medical Services

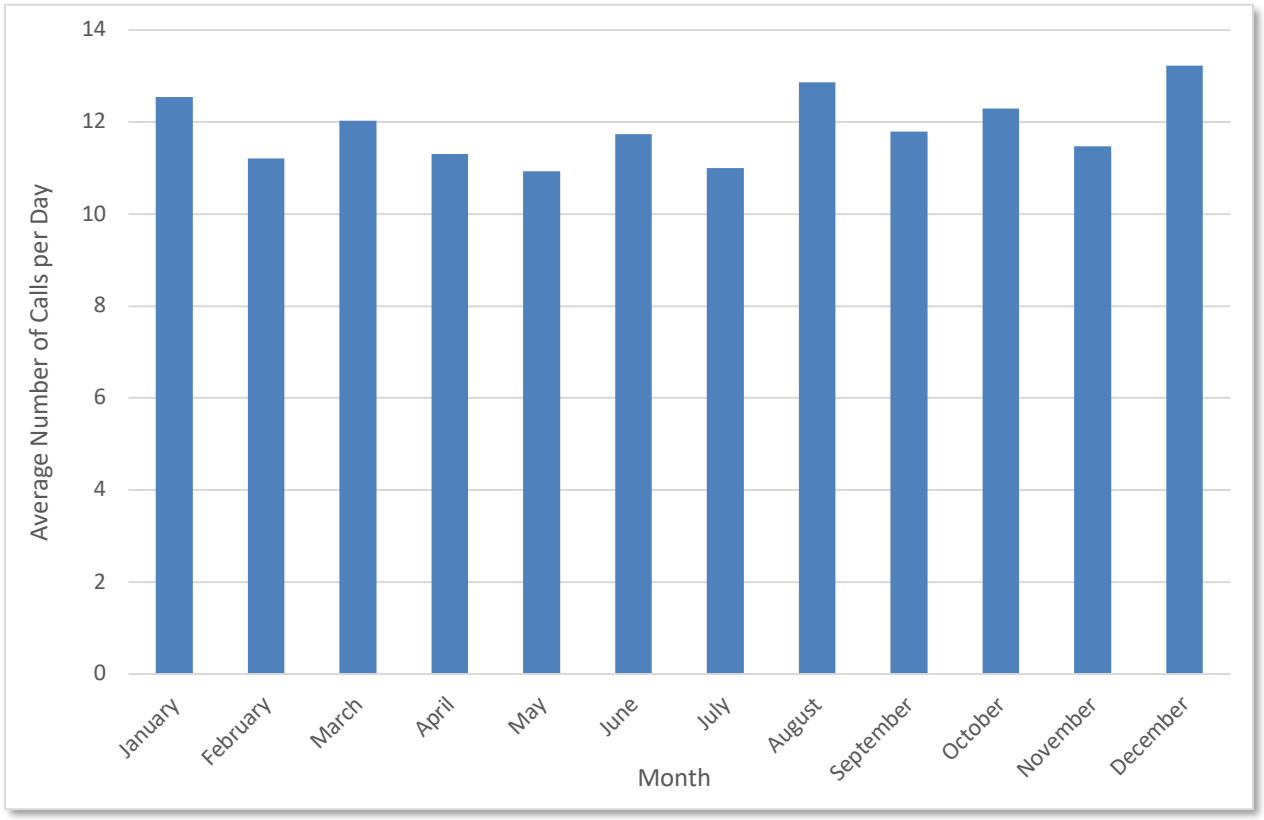
Temporal analyses were conducted to evaluate patterns in community demand for EMS related services. These analyses are based on the 4,346 total EMS related requests for service received from the community across all jurisdictions during 2024, and examine the frequency of requests for service by month, day of week, and hour of day.

Results indicated that there was some variability by month (Table 19; Figure 10). The three months with the most EMS related calls in descending order were: December (13.2 per day), August (12.9 per day), and January (12.5 per day). The three months with the fewest EMS related calls in ascending order were: May (10.9 per day), July (11.0 per day), and February (11.2 per day).

Table 19: Total EMS Related Calls and Average Calls per Day by Month

Month	Number of Calls	Average Calls per Day	Call Percentage
January	389	12.5	9.0
February	325	11.2	7.5
March	373	12.0	8.6
April	339	11.3	7.8
May	339	10.9	7.8
June	352	11.7	8.1
July	341	11.0	7.8
August	399	12.9	9.2
September	354	11.8	8.1
October	381	12.3	8.8
November	344	11.5	7.9
December	410	13.2	9.4
Total	**4,346**	**11.9**	**100.0**

Figure 10: Average EMS Related Calls per Day by Month



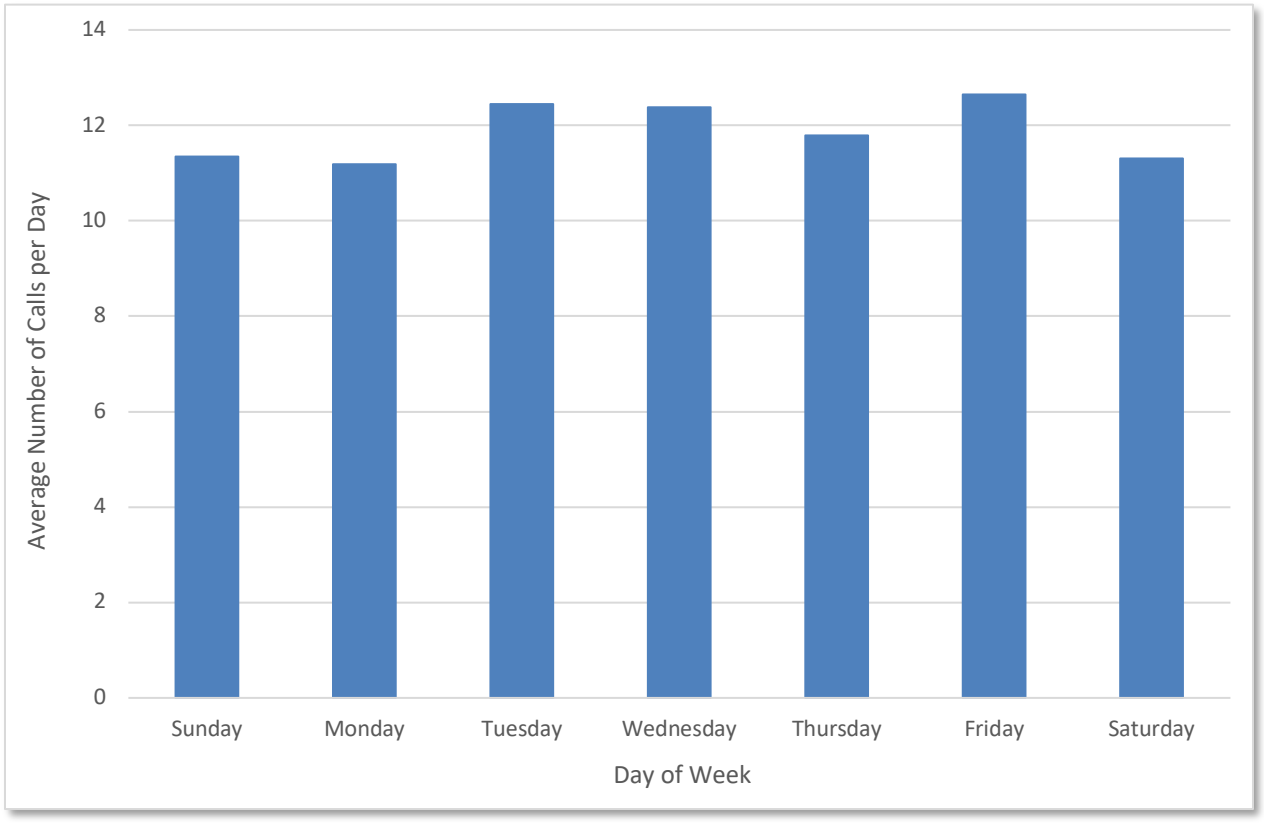
Similar analyses were conducted for EMS related calls by day of week (Table 20; Figure 11). The data revealed that there was some variability in demand for services by day of week. Friday had the highest frequency of requests for EMS related services, averaging 12.7 calls per day and accounting for 15.1% of all EMS related calls. Monday had the lowest frequency of requests for EMS related services, averaging 11.2 calls per day and accounting for 13.6% of all EMS related calls.

Table 20: Total EMS Related Calls and Average Calls per Day by Day of Week

Day of Week[1]	Number of Calls	Average Calls per Day	Call Percentage
Sunday	590	11.3	13.6
Monday	593	11.2	13.6
Tuesday	660	12.5	15.2
Wednesday	644	12.4	14.8
Thursday	613	11.8	14.1
Friday	658	12.7	15.1
Saturday	588	11.3	13.5
Total	**4,346**	**11.9**	**100.0**

[1]There were 53 Mondays and Tuesdays during 2024, and 52 of all other days of the week during 2024.

Figure 11: Average EMS Related Calls per Day by Day of Week

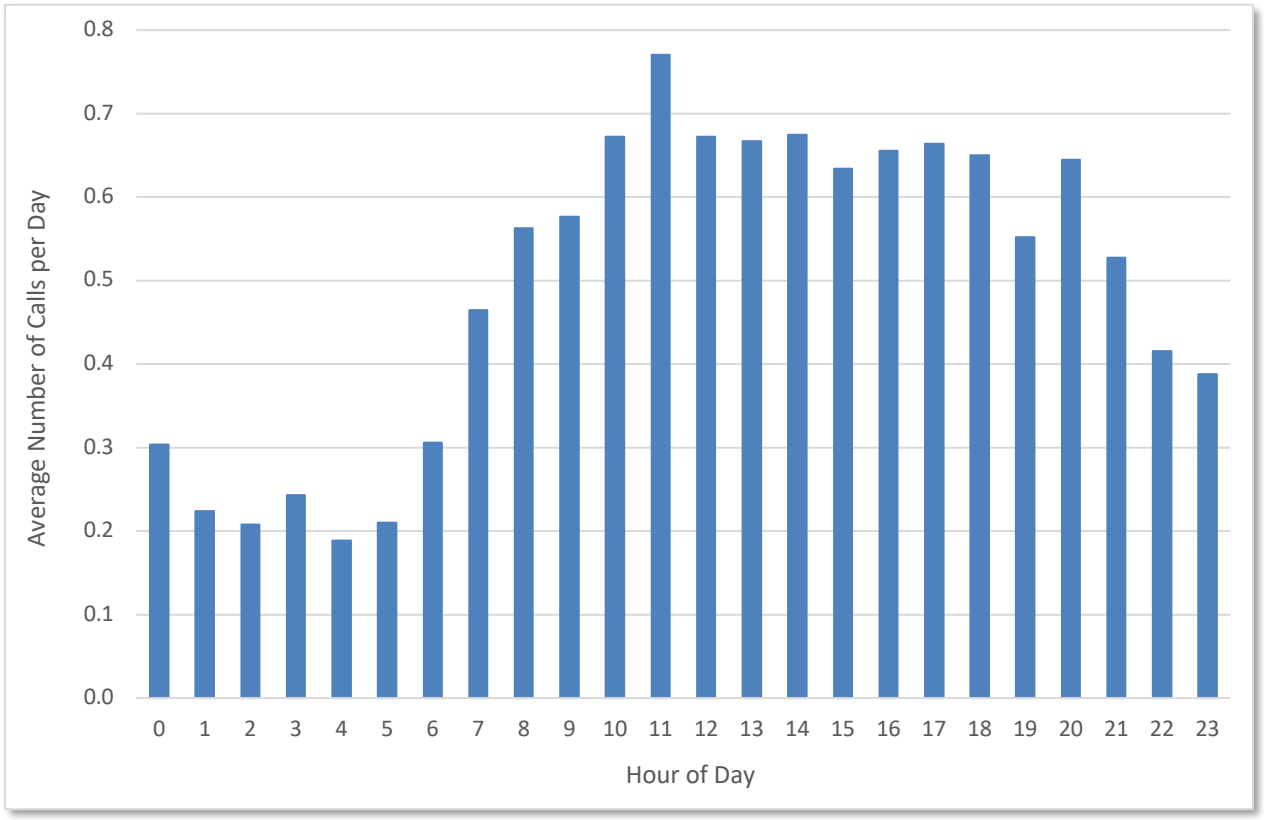


EMS related calls were also evaluated by hour of the day (Table 21; Figure 12). Variability exists in the time of day that requests for EMS related services were received. The hours from 0100 to 0500 had the lowest demands, when average number of calls per day for those hours ranged from 0.19 to 0.24. The highest demand for EMS related services occurred at 1100, when average number of calls per day during that hour was 0.77.

Table 21: Total EMS Related Calls and Average Calls per Day by Hour of Day

Hour of Day	Number of Calls	Average Calls per Day	Call Percentage
0	111	0.30	2.6
1	82	0.22	1.9
2	76	0.21	1.7
3	89	0.24	2.0
4	69	0.19	1.6
5	77	0.21	1.8
6	112	0.31	2.6
7	170	0.46	3.9
8	206	0.56	4.7
9	211	0.58	4.9
10	246	0.67	5.7
11	282	0.77	6.5
12	246	0.67	5.7
13	244	0.67	5.6
14	247	0.67	5.7
15	232	0.63	5.3
16	240	0.66	5.5
17	243	0.66	5.6
18	238	0.65	5.5
19	202	0.55	4.6
20	236	0.64	5.4
21	193	0.53	4.4
22	152	0.42	3.5
23	142	0.39	3.3
Total	**4,346**	**11.9**	**100.0**

Figure 12: Average EMS Related Calls per Day by Hour of Day



Based on classification of CAD incident types, EMS related requests accounted for 88.2% of the total requests for service across all jurisdictions during 2024, and averaged 11.9 requests per day (Figure 6; Table 8). EMS related calls are an aggregated category of the various incident types available in the data file. Table 22 provides details for these EMS related calls by nature of the call based on incident type (i.e., variable "Problem" in the CAD data file; entries are presented verbatim from the data file).

Table 22: Total EMS Related Calls by Nature of Call – CAD Problem

Nature of Call – CAD Problem[1]	Number of Calls	Percentage of Total EMS Demand
ySick Person-1	418	9.6
yDifficulty Breathing	352	8.1
yFall-1	346	8.0
ySick Person-3	310	7.1
yFall-3	280	6.4
yRQ EMS by Public Safety-L3	242	5.6
yPerson In Crisis-1	166	3.8
yCardiac/Heart Problems-1	164	3.8
yMVA: Unknown Injury	147	3.4
yChest Pain(Non-Cardiac)-1	133	3.1
yUnconscious Person-1	131	3.0
yAbdominal Pain/Problem-1	127	2.9
ySeizure-1	123	2.8
yUnknown Medical Situation-1	122	2.8
yPerson In Crisis-3	116	2.7
yVehicle Accident Injury	95	2.2
yMedical Alarm-2	87	2.0
yStroke-1	84	1.9
yCPR/Full Arrest	83	1.9
yFall-2	80	1.8
yBleeding-1	79	1.8
yDiabetic-1	66	1.5
yMutual Aid-EMS Request (Out)	47	1.1
yBack Pain(Non-Trauma)-1	43	1.0
yRQ EMS by Public Safety-L1	43	1.0
yAllergic Reaction	42	1.0
yAccidental OD/Poisoning-1	40	0.9
yBleeding-3	29	0.7
yTraumatic Inj/Head Injury-3	27	0.6
yBack Pain(Non-Trauma)-3	22	0.5
ySuicide or Attempted	22	0.5
yTraumatic Inj/Head Injury-1	21	0.5
yHeadache-1	20	0.5
yChoking-3	19	0.4
yDiabetic-3	16	0.4

Nature of Call – CAD Problem[1]	Number of Calls	Percentage of Total EMS Demand
yChoking-1	15	0.3
yCO/Inhalation	13	0.3
yUnconscious Person-2	12	0.3
yAssault Injury-1	11	0.3
yDomestic Violence Injury-1	11	0.3
yUnknown Medical Situation-3	11	0.3
yCardiac/Heart Problems-3	10	0.2
yPossible Death	10	0.2
yChest Pain(Non-Cardiac)-2	9	0.2
yAbdominal Pain/Problem-3	8	0.2
yAssault Injury-3	8	0.2
yMVA: Injury-Entrapment	7	0.2
yChildbirth/Obstetrics-1	6	0.1
yMedical Alarm-1	6	0.1
yAnimal Bite Injury-1	5	0.1
yAnimal Bite Injury-3	5	0.1
yShooting with Injuries	5	0.1
yUnconscious Person-3	5	0.1
yAccidental OD/Poisoning-2	4	0.1
yBack Pain(Non-Trauma)-2	4	0.1
yDomestic Violence Injury-3	4	0.1
yEye Problem/Injury-1	4	0.1
ySeizure-3	4	0.1
yStroke-2	4	0.1
yExposure Heat/Cold-1	3	0.1
yTraumatic Inj/Head Injury-2	3	0.1
yAbdominal Pain/Problem-2	2	< 0.1
yBurns-1	2	< 0.1
yEye Problem/Injury-3	2	< 0.1
yStroke-3	2	< 0.1
yAnimal Bite Injury-2	1	< 0.1
yCardiac/Heart Problems-2	1	< 0.1
yChildbirth/Obstetrics-2	1	< 0.1
yElectrical Hazard with Injury	1	< 0.1
yHeadache-3	1	< 0.1
yLE Incident w/ Medical-3	1	< 0.1
yMachine/Industrial Accident-1	1	< 0.1
yMVA: Hit and Run with Injury	1	< 0.1
yStabbing	1	< 0.1
Total	**4,346**	**100.0**

[1]Entries are presented verbatim from the data file.

Based on classification of RMS/NFIRS incident types, EMS related requests accounted for 70.8% of the total requests for service across all jurisdictions during 2024, and averaged 9.5 requests per day (Table 14). Table 23 provides details for EMS related calls by nature of the call based on RMS/NFIRS incident type (i.e., variable "Basic Incident Type (FD1.21)" from the RMS/NFIRS data file; entries are presented verbatim from the data file).

Table 23: Total EMS Related Calls by Nature of Call – RMS/NFIRS Incident Type

Nature of Call – RMS/NFIRS Incident Type[1]	Number of Calls	Percentage of Total EMS Demand
EMS call, excluding vehicle accident with injury	3,226	92.4
Medical assist, assist EMS crew	110	3.2
Motor vehicle accident with injuries	92	2.6
Motor vehicle accident with no injuries.	31	0.9
Community Paramedic Services	27	0.8
Motor vehicle/pedestrian accident (MV Ped)	4	0.1
Total	**3,490**	**100.0**

[1]Entries are presented verbatim from the data file.

Lastly, Table 24 provides details for EMS related calls by nature of the call based on ePCR/NEMSIS complaint (i.e., variable "Incident Complaint Reported By Dispatch/Dispatch Reason (eDispatch.01)" from the ePCR/NEMSIS data file; entries are presented verbatim from the data file), as available for any record, regardless of program classification based on CAD or RMS/NFIRS data.

Table 24: Total EMS Related Calls by Nature of Call – ePCR/NEMSIS Complaint

Nature of Call – ePCR/NEMSIS Complaint[1]	Number of Calls	Percentage of Total EMS Demand
Sick Person	645	16.9
Fall	643	16.8
Breathing Problem	321	8.4
Psychiatric Problem/Abnormal Behavior/Suicide Attempt	261	6.8
Z-Assist Other Agency	255	6.7
Heart Problems/AICD	151	4.0
Unconscious/Fainting/Near-Fainting	142	3.7
Chest Pain (Non-Traumatic)	129	3.4
Abdominal Pain/Problems	126	3.3
Unknown Problem/Person Down	115	3.0
Convulsions/Seizure	113	3.0
Z-Bleeding	95	2.5
Motor Vehicle Crash	86	2.3
Medical Alarm	81	2.1
Stroke/CVA	78	2.0

Nature of Call – ePCR/NEMSIS Complaint[1]	Number of Calls	Percentage of Total EMS Demand
Diabetic Problem	76	2.0
Cardiac Arrest/Death	75	2.0
Z-Auto vs. Pedestrian	71	1.9
Back Pain (Non-Traumatic)	66	1.7
Traumatic Injury	48	1.3
Overdose/Poisoning/Ingestion	43	1.1
Allergic Reaction/Stings	32	0.8
Choking	30	0.8
Assault/Battery/Abuse Victim	28	0.7
Headache	17	0.4
Animal Bite	10	0.3
Carbon Monoxide/Hazmat/Inhalation/CBRN	10	0.3
No Other Appropriate Choice	9	0.2
Z-Cardiac Arrest - Possible DOA	9	0.2
Automated Crash Notification	7	0.2
Pregnancy/Childbirth/Miscarriage	7	0.2
Traffic/Transportation Incident	6	0.2
Eye Problem/Injury	5	0.1
Well Person Check	5	0.1
Z-Gunshot	3	0.1
Z-Structure Fire	3	0.1
Burns/Explosion	2	0.1
Pediatric - Trauma, Fall, MVA, GSW, Other.	2	0.1
Stab/Gunshot Wound/Penetrating Trauma	2	0.1
Z-Water Rescue	2	0.1
Alcohol/Substance Abuse/Withdrawal	1	< 0.1
Drowning/Diving/SCUBA Accident	1	< 0.1
Electrocution/Lightning	1	< 0.1
Heat/Cold Exposure	1	< 0.1
Hemorrhage/Laceration	1	< 0.1
Industrial Accident/Inaccessible Incident/Other Entrapments (Non-Vehicle)	1	< 0.1
Syncope/near-fainting	1	< 0.1
Z-Assist Police with a Citizen	1	< 0.1
Z-Stabbing	1	< 0.1
Total	**3,818**	**100.0**

[1]Entries are presented verbatim from the data file.

Community Demand for Fire Related Services

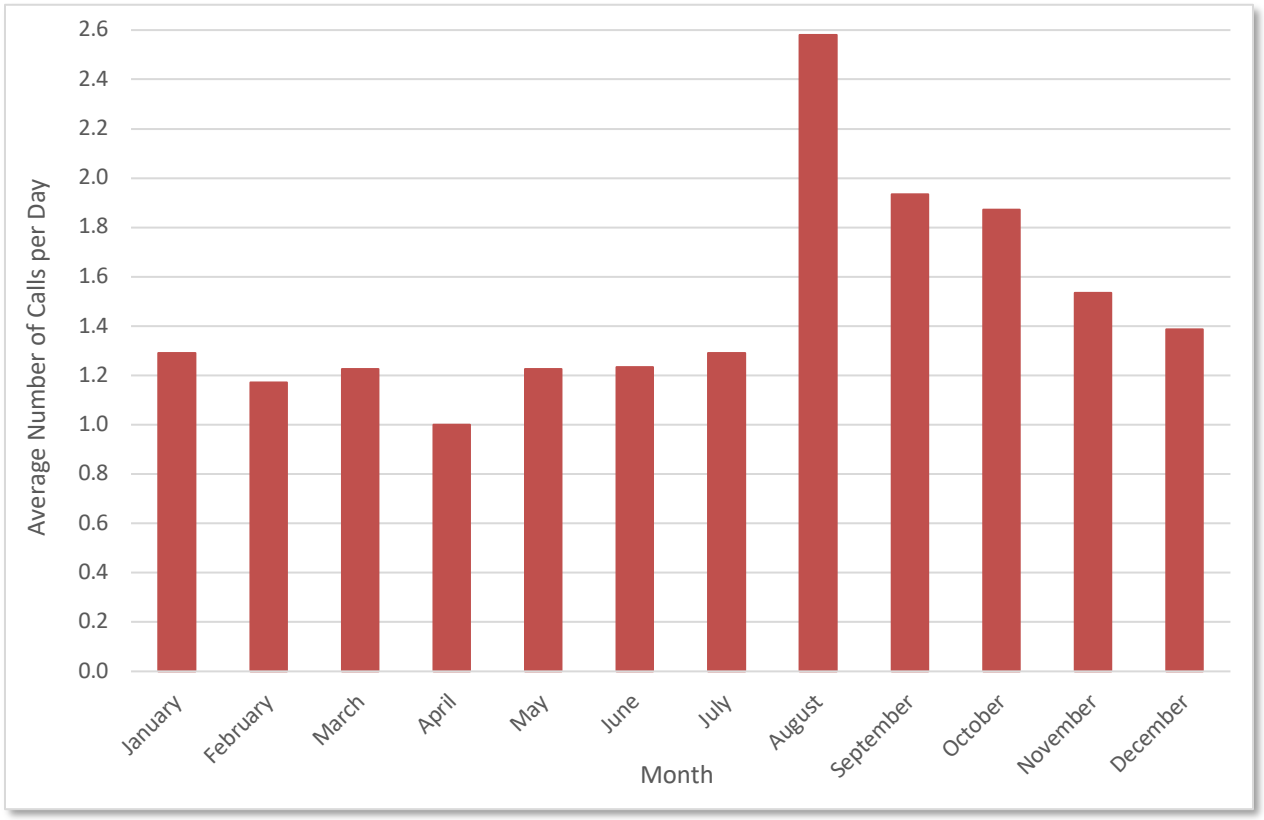
Temporal analyses were conducted to evaluate patterns in community demand for fire related services. These analyses are based on the 542 total fire related requests for service received from the community across all jurisdictions during 2024, and examine the frequency of requests for service by month, day of week, and hour of day.

Results found that there was variability by month (Table 25; Figure 13). The three months with the most fire related calls in descending order were: August (2.6 per day), September (1.9 per day), and October (1.9 per day). The three months with the fewest fire related calls in ascending order were: April (1.0 per day), February (1.2 per day), and March/May (tied at 1.2 per day).

Table 25: Total Fire Related Calls and Average Calls per Day by Month

Month	Number of Calls	Average Calls per Day	Call Percentage
January	40	1.3	7.4
February	34	1.2	6.3
March	38	1.2	7.0
April	30	1.0	5.5
May	38	1.2	7.0
June	37	1.2	6.8
July	40	1.3	7.4
August	80	2.6	14.8
September	58	1.9	10.7
October	58	1.9	10.7
November	46	1.5	8.5
December	43	1.4	7.9
Total	**542**	**1.5**	**100.0**

Figure 13: Average Fire Related Calls per Day by Month



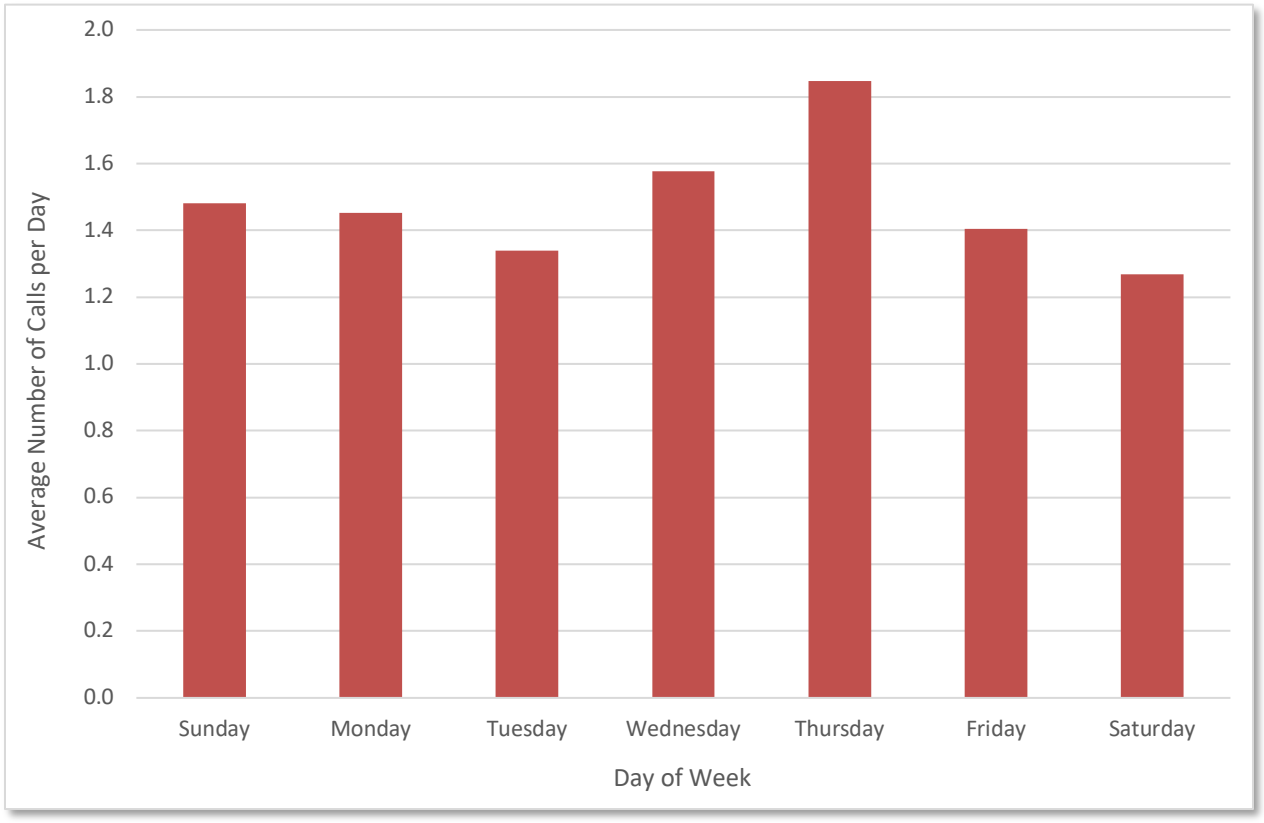
Similar analyses were conducted for fire related calls by day of week (Table 26; Figure 14). The data revealed that there is some variability in the demand for services by day of week. The three days with the most fire related calls in descending order were: Thursday (1.8 per day), Wednesday (1.6 per day), and Sunday (1.5 per day). The three days with the fewest fire related calls in ascending order were: Saturday (1.3 per day), Tuesday (1.3 per day), and Friday (1.4 per day).

Table 26: Total Fire Related Calls and Average Calls per Day by Day of Week

Day of Week[1]	Number of Calls	Average Calls per Day	Call Percentage
Sunday	77	1.5	14.2
Monday	77	1.5	14.2
Tuesday	71	1.3	13.1
Wednesday	82	1.6	15.1
Thursday	96	1.8	17.7
Friday	73	1.4	13.5
Saturday	66	1.3	12.2
Total	**542**	**1.5**	**100.0**

[1]There were 53 Mondays and Tuesdays during 2024, and 52 of all other days of the week during 2024.

Figure 14: Average Fire Related Calls per Day by Day of Week

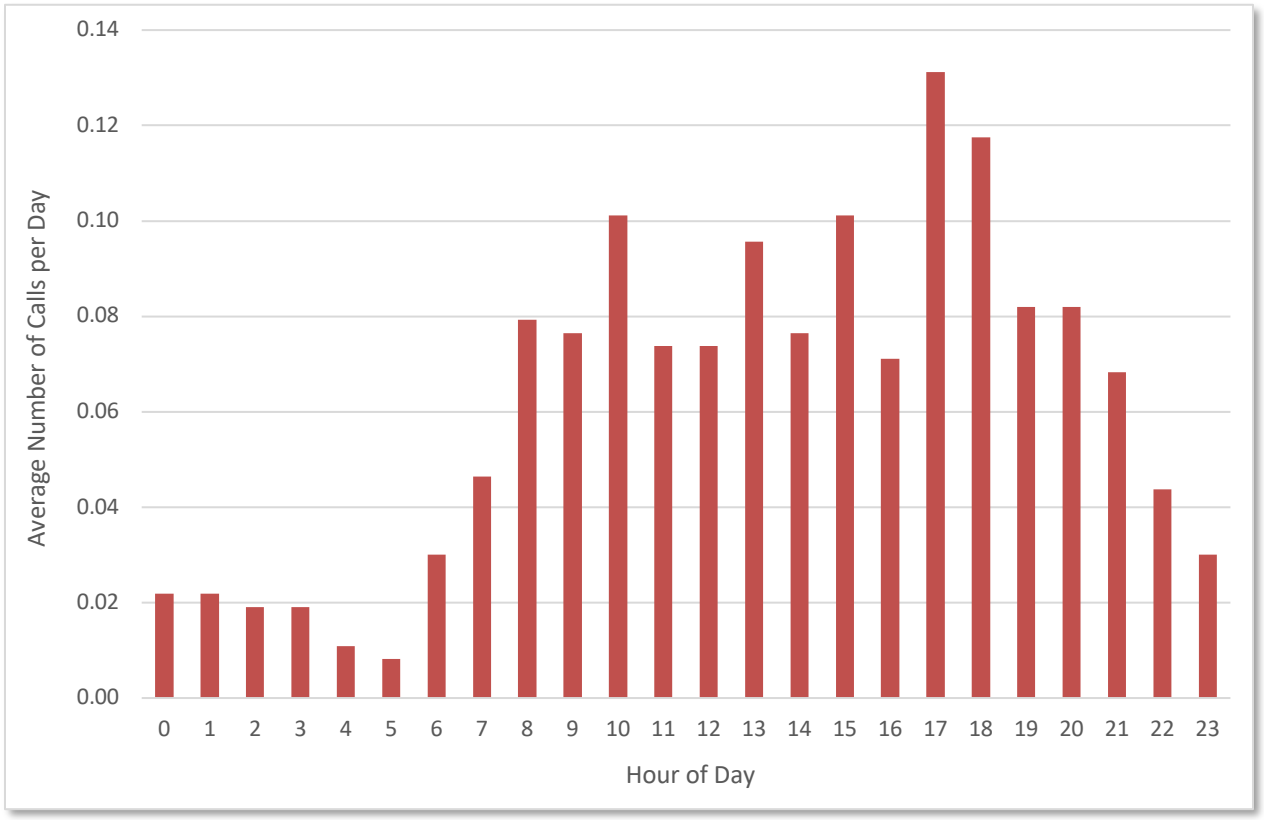


Fire related calls were also evaluated by hour of the day (Table 27; Figure 15). Some variability exists in the time of day that requests for fire related services were received. The hours from 0000 to 0500 had the lowest demands, when average number of calls per day for those hours ranged from 0.01 to 0.02. The highest demand for fire related services occurred at 1700 (48 total fire calls during that hour in 2024), when average number of calls per day during that hour was 0.13.

Table 27: Total Fire Related Calls and Average Calls per Day by Hour of Day

Hour of Day	Number of Calls	Average Calls per Day	Call Percentage
0	8	0.02	1.5
1	8	0.02	1.5
2	7	0.02	1.3
3	7	0.02	1.3
4	4	0.01	0.7
5	3	0.01	0.6
6	11	0.03	2.0
7	17	0.05	3.1
8	29	0.08	5.4
9	28	0.08	5.2
10	37	0.10	6.8
11	27	0.07	5.0
12	27	0.07	5.0
13	35	0.10	6.5
14	28	0.08	5.2
15	37	0.10	6.8
16	26	0.07	4.8
17	48	0.13	8.9
18	43	0.12	7.9
19	30	0.08	5.5
20	30	0.08	5.5
21	25	0.07	4.6
22	16	0.04	3.0
23	11	0.03	2.0
Total	**542**	**1.5**	**100.0**

Figure 15: Average Fire Related Calls per Day by Hour of Day



Based on classification of CAD incident types, fire related requests accounted for 11.0% of the total requests for service during 2024 across all jurisdictions, and averaged 1.5 requests per day (Figure 6; Table 8). Fire related calls are an aggregated category of the various incident types available in the data file. Table 28 provides details for these fire related calls by nature of the call based on incident type (i.e., variable "Problem" in the CAD data file; entries are presented verbatim from the data file).

Table 28: Total Fire Related Calls by Nature of Call – CAD Problem

Nature of Call – CAD Problem[1]	Number of Calls	Percentage of Total Fire Service Demand
yFire Alarm	169	31.2
yFire Alarm Carbon Monoxide	61	11.3
yOdor/Smoke Smell Outside	59	10.9
yFire Report	49	9.0
yStructure Fire-Flames Seen	39	7.2
yElectrical Hazard	38	7.0
yFire Vehicle	21	3.9
ySmoke in Structure-No Flames	20	3.7
yMutual Aid-FIRE	19	3.5
yFire Outside	18	3.3
yFire Alarm - Water Flow	15	2.8
yRQ Fire by Public Safety	12	2.2
yOven Fire Contained to Oven	7	1.3
yBrush Fire	6	1.1
yElectrical Fire	5	0.9
yFire Unknown	3	0.6
yChimney Fire	1	0.2
Total	**542**	**100.0**

[1]Entries are presented verbatim from the data file.

Based on classification of RMS/NFIRS incident types, fire related requests accounted for 28.2% of the total requests for service across all jurisdictions during 2024, and averaged 3.8 requests per day (Table 14). Table 29 provides details for fire related calls by nature of the call based on RMS/NFIRS incident type (i.e., variable "Basic Incident Type (FD1.21)" from the RMS/NFIRS data file; entries are presented verbatim from the data file).

Table 29: Total Fire Related Calls by Nature of Call – RMS/NFIRS Incident Type

Nature of Call – RMS/NFIRS Incident Type[1]	Number of Calls	Percentage of Total Fire Service Demand
Dispatched and cancelled en route	982	70.6
Alarm system sounded due to malfunction	54	3.9
Alarm system activation, no fire - unintentional	42	3.0
Cover assignment, standby, moveup	39	2.8
No incident found on arrival at dispatch address	31	2.2
Cooking fire, confined to container	28	2.0
HazMat release investigation w/no HazMat	25	1.8
Power line down	24	1.7
Carbon monoxide detector activation, no CO	23	1.7
Smoke scare, odor of smoke	20	1.4
Assist police or other governmental agency	17	1.2
Public service	12	0.9
CO detector activation due to malfunction	9	0.6
Good intent call, other	9	0.6
Passenger vehicle fire	8	0.6
Building fire	7	0.5
Smoke detector activation due to malfunction	7	0.5
Arcing, shorted electrical equipment	6	0.4
Overheated motor	6	0.4
Smoke detector activation, no fire - unintentional	5	0.4
Brush or brush-and-grass mixture fire	4	0.3
Lightning strike (no fire)	3	0.2
Outside rubbish fire, other	3	0.2
Smoke or odor removal	3	0.2
Special outside fire, other	3	0.2
Sprinkler activation, no fire - unintentional	3	0.2
Authorized controlled burning	2	0.1
Outside rubbish, trash or waste fire	2	0.1
Animal rescue	1	0.1
Breakdown of light ballast	1	0.1
Chimney or flue fire, confined to chimney or flue	1	0.1
Defective elevator, no occupants	1	0.1

Nature of Call – RMS/NFIRS Incident Type[1]	Number of Calls	Percentage of Total Fire Service Demand
Grass fire	1	0.1
Heat from short circuit (wiring), defective/worn	1	0.1
Malicious, mischievous false call, other	1	0.1
Mobile property (vehicle) fire, other	1	0.1
Off-road vehicle or heavy equipment fire	1	0.1
Ring or jewelry removal	1	0.1
Road freight or transport vehicle fire	1	0.1
Sprinkler activation due to malfunction	1	0.1
Unauthorized burning	1	0.1
Total	**1,390**	**100.0**

[1]Entries are presented verbatim from the data file.

Response Volume and Busy Time

Individual unit busy time, or time on task, was measured from unit dispatch date and time, to unit clear date and time (Figure 16). All units assigned to CGFD made 5,271 responses across all jurisdictions, and were busy on calls for a total of 3,325.8 hours during 2024 (Table 30). Overall, average busy minutes per response was 37.9 minutes, and average number of responses per call was 1.1. The EMS program was the busiest program in the department, accounting for 83.9% of the department's total response volume (4,425/5,271), and 89.0% of the department's total busy hours (2,958.3/3,325.8). Table 30 also presents these same metrics by RMS/NFIRS jurisdiction.

Response volume and busy time metrics are reported by CAD program and RMS/NFIRS city for CGFD responses within CGFD's jurisdiction in Table 31.

Figure 16: Busy Time Interval Measurement

Busy Time

Incident Number	Call Type	Unit ID	Call Received Date and Time	Unit Dispatch Date and Time	Unit En Route Date and Time	Unit Arrival Date and Time	Unit Clear Date and Time
24-9458	Fall	AMB1	2024-12-30 18:19:35	2024-12-30 18:20:08	2024-12-30 18:21:01	2024-12-30 18:26:36	2024-12-30 18:58:44
24-9458	Fall	ENG1	2024-12-30 18:19:35	2024-12-30 18:21:19	2024-12-30 18:22:07	2024-12-30 18:27:47	2024-12-30 18:30:44
24-9459	Vehicle Fire	AMB1	2024-12-31 05:30:14	2024-12-31 05:31:26	2024-12-31 05:32:33	2024-12-31 05:38:38	2024-12-31 05:59:42
24-9459	Vehicle Fire	ENG1	2024-12-31 05:30:14	2024-12-31 05:31:26	2024-12-31 05:32:41	2024-12-31 05:37:32	2024-12-31 06:52:42
24-9459	Vehicle Fire	T2	2024-12-31 05:30:14	2024-12-31 05:31:40	2024-12-31 05:33:37	2024-12-31 05:39:19	2024-12-31 06:59:36
24-9460	MVA	AMB1	2024-12-31 10:33:57	2024-12-31 10:35:09	2024-12-31 10:36:40	2024-12-31 10:46:32	2024-12-31 11:35:13
24-9460	MVA	ENG1	2024-12-31 10:33:57	2024-12-31 10:35:19	2024-12-31 10:37:59	2024-12-31 10:42:30	2024-12-31 11:42:26
24-9460	MVA	R2	2024-12-31 10:33:57	2024-12-31 10:35:10	2024-12-31 10:36:49	2024-12-31 10:41:56	2024-12-31 11:25:13

Table 30: Number of Calls, Number of Responses, and Total Busy Time by RMS/NFIRS Jurisdiction and CAD Program – CGFD Units

RMS/NFIRS Jurisdiction	CAD Program[1]	Number of Calls[2]	Number of Responses[3]	Average Responses per Call	Total Busy Hours	Average Busy Minutes per Response	Average Calls per Day	Average Responses per Day
All	EMS	4,036	4,425	1.1	2,958.3	40.1	11.0	12.1
	Fire	530	784	1.5	346.0	26.5	1.4	2.1
	Hazmat	28	43	1.5	16.1	22.4	0.1	0.1
	Rescue	13	19	1.5	5.5	17.3	< 0.1	0.1
	Total	**4,607**	**5,271**	**1.1**	**3,325.8**	**37.9**	**12.6**	**14.4**
Within CGFD[4]	EMS	3,435	3,796	1.1	2,645.9	41.8	9.4	10.4
	Fire	434	662	1.5	279.5	25.3	1.2	1.8
	Hazmat	23	38	1.7	14.9	23.5	0.1	0.1
	Rescue	7	12	1.7	2.2	10.9	< 0.1	< 0.1
	Total	**3,899**	**4,508**	**1.2**	**2,942.4**	**39.2**	**10.7**	**12.3**
Outside of CGFD	EMS	601	629	1.0	312.4	29.8	1.6	1.7
	Fire	96	122	1.3	66.6	32.7	0.3	0.3
	Hazmat	5	5	1.0	1.1	13.7	< 0.1	< 0.1
	Rescue	6	7	1.2	3.3	28.3	< 0.1	< 0.1
	Total	**708**	**763**	**1.1**	**383.4**	**30.2**	**1.9**	**2.1**

[1]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[2]"Number of Calls" reflects an adjusted number of calls to align with responses made by valid units assigned to CGFD.
[3]"Number of Responses" reflects the total number of records in the data file associated with responses made by valid units assigned to CGFD.
[4]"Within CGFD" includes the RMS/NFIRS city values of Cottage Grove, Newport, Saint Paul Park, and Township of Grey Cloud Island for EMS calls, and the RMS/NFIRS city value of Cottage Grove for fire, hazmat, and rescue calls.

Table 31: Number of Calls, Number of Responses, and Total Busy Time by CAD Program and RMS/NFIRS City – CGFD Units in CGFD's Jurisdiction

CAD Program and RMS/NFIRS City[1]	Number of Calls[2]	Number of Responses[3]	Average Responses per Call	Total Busy Hours	Average Busy Minutes per Response	Average Calls per Day	Average Responses per Day
EMS	**3,435**	**3,796**	**1.1**	**2,645.9**	**41.8**	**9.4**	**10.4**
Cottage Grove	2,503	2,797	1.1	1,941.5	41.6	6.8	7.6
Newport	460	495	1.1	327.9	39.8	1.3	1.4
Saint Paul Park	417	446	1.1	338.5	45.5	1.1	1.2
Township of Grey Cloud Island	55	58	1.1	38.0	39.3	0.2	0.2
Fire	**434**	**662**	**1.5**	**279.5**	**25.3**	**1.2**	**1.8**
Hazmat	**23**	**38**	**1.7**	**14.9**	**23.5**	**0.1**	**0.1**
Rescue	**7**	**12**	**1.7**	**2.2**	**10.9**	**< 0.1**	**< 0.1**
Total Cottage Grove	**2,967**	**3,509**	**1.2**	**2,238.0**	**38.3**	**8.1**	**9.6**
Total All	**3,899**	**4,508**	**1.2**	**2,942.4**	**39.2**	**10.7**	**12.3**

[1]Metrics by RMS/NFIRS city are reported individually for EMS calls only, as CGFD units are first due to all fire, hazmat, and rescue calls in the RMS/NFIRS city value of Cottage Grove only.
[2]"Number of Calls" reflects an adjusted number of calls to align with responses made by valid units assigned to CGFD.
[3]"Number of Responses" reflects the total number of records in the data file associated with responses made by valid units assigned to CGFD.

Number of Responding Units

Emergency Medical Services

We analyzed number of responding CGFD units to calls across all jurisdictions by EMS related CAD call type (Table 32). Overall, 91.8% of EMS related calls were responded to by one unit, and 6.9% were responded to by two units. Average number of responses per call was 1.1 (Table 30).

Table 32: Number of Responding CGFD Units to Calls in All Jurisdictions by EMS Related CAD Call Type

CAD Call Type	Number of Responding Units							
	1	2	3	4	5	6	7 or More	Total
Breathing Problem	342	13	0	1	0	0	0	356
Cardiac and Stroke	393	37	18	2	1	0	0	451
Fall and Injury	825	40	1	0	0	0	0	866
Illness and Other	1,689	59	3	2	0	0	0	1,753
Mutual Aid	45	1	0	0	0	0	0	46
MVA	128	94	16	1	1	0	0	240
Overdose and Psychiatric	53	8	1	0	0	0	0	62
Seizure and Unconsciousness	232	27	3	0	0	0	0	262
Total	**3,707**	**279**	**42**	**6**	**2**	**0**	**0**	**4,036**
Percentage	**91.8**	**6.9**	**1.0**	**0.1**	**0.0**	**0.0**	**0.0**	**100.0**

Fire Related Services

We also analyzed number of responding CGFD units to calls across all jurisdictions by fire related CAD call type (Table 33). Overall, 64.9% of fire related calls were responded to by one unit, 28.1% were responded to by two units, and 3.6% were responded to by three units. Average number of responses per call was 1.5 (Table 30). For structure fire calls, 15.2% of calls (10/66) were responded to by four or more CGFD units (Table 33). The maximum number of CGFD units responding to a structure fire call during 2024 was eight. CGFD units were busy on structure fire calls for 118.4 hours during 2024, making 138 responses to 66 structure fire calls and averaging 2.1 responses per call. Average busy minutes per response was 51.5 minutes.

Table 33: Number of Responding CGFD Units to Calls in All Jurisdictions by Fire Related CAD Call Type

CAD Call Type	Number of Responding Units							
	1	2	3	4	5	6	7 or More	Total
Brush Fire	3	1	0	1	0	0	0	5
Fire Alarm	167	69	4	1	0	0	0	241
Fire Other	55	11	1	0	0	0	0	67
Hazardous Condition	61	27	3	3	0	0	0	94
Mutual Aid	14	4	1	0	0	0	0	19
Outside Fire	6	6	3	1	1	0	0	17
Structure Fire	31	20	5	4	2	3	1	66
Vehicle Fire	7	11	2	1	0	0	0	21
Total	**344**	**149**	**19**	**11**	**3**	**3**	**1**	**530**
Percentage	**64.9**	**28.1**	**3.6**	**2.1**	**0.6**	**0.6**	**0.2**	**100.0**

TRANSPORT

We analyzed call and unit response activity related to patient transports through use of the "Disposition Incident Patient Disposition (3.4=eDisposition.12/3.5=itDisposition.112)," "CAD Patient Arrived At Destination Date Time (eTimes.11)," and "Disposition Destination Name Delivered Transferred To (eDisposition.01)" variables available in the ePCR/NEMSIS data file.

Transport Calls

Calls were considered to represent transport calls if at least one of the unit response records in the data file reported "Transport by This EMS Unit" for the "Disposition Incident Patient Disposition (3.4=eDisposition.12/3.5=itDisposition.112)" variable, reported a valid date and time for the "CAD Patient Arrived At Destination Date Time (eTimes.11)" variable, or reported a valid healthcare facility name for the "Disposition Destination Name Delivered Transferred To (eDisposition.01)" variable. Records considered to be relevant for these analyses included records classified to the program area of EMS only (i.e., not fire, hazmat, or rescue), based on classification of the CAD or RMS/NFIRS incident type values, as relevant in the tables below.

EMS Call Volume, Call Duration, and Transport Rate

Based on classification of the CAD incident type values, the number of EMS calls within CGFD's jurisdiction indicating a patient transport during 2024 totaled 2,199, for an overall transport rate of 64.0% (i.e., 2,199 of 3,435 EMS calls; Table 34, data also presented by RMS/NFIRS city and CAD call type), averaging 6.0 transport calls per day (Table 36). Duration of a call is defined as the difference between the call received date and time, and call closed date and time. Call duration values that were negative, zero, or over 24 hours were excluded, as applicable. The average duration of a non-transport call was 29.1 minutes, and the average duration of a transport call was 62.0 minutes.

Based on classification of the RMS/NFIRS incident type values, the number of EMS calls within CGFD's jurisdiction indicating a patient transport during 2024 totaled 2,199, for an overall transport rate of 69.7% (i.e., 2,199 of 3,154 EMS calls; Table 35, data also presented by RMS/NFIRS city and RMS/NFIRS call type), averaging 6.0 transport calls per day. The average duration of a non-transport call was 32.4 minutes, and the average duration of a transport call was 62.0 minutes.

Table 34: EMS Non-Transport and Transport Calls by RMS/NFIRS City and CAD Call Type – Any Unit in CGFD's Jurisdiction

		Non-Transport		Transport		Total		
RMS/NFIRS City	CAD Call Type	Average Call Duration (Minutes)	Number of Calls	Average Call Duration (Minutes)	Number of Calls	Average Call Duration (Minutes)	Number of Calls	Transport Rate (%)
Cottage Grove	Breathing Problem	27.8	67	54.9	164	47.1	231	71.0
	Cardiac and Stroke	36.0	74	61.8	210	55.1	284	73.9
	Fall and Injury	30.9	224	58.9	343	47.8	567	60.5
	Illness and Other	30.2	339	64.9	729	53.9	1,068	68.3
	Mutual Aid	17.6	2	69.0	2	43.3	4	50.0
	MVA	20.0	100	61.5	25	28.3	125	20.0
	Overdose and Psychiatric	36.6	13	61.0	31	53.8	44	70.5
	Seizure and Unconsciousness	28.1	65	60.0	115	48.5	180	63.9
	Total	**29.4**	**884**	**61.8**	**1,619**	**50.3**	**2,503**	**64.7**
Newport	Breathing Problem	23.9	5	54.0	31	49.8	36	86.1
	Cardiac and Stroke	40.1	20	62.5	37	54.7	57	64.9
	Fall and Injury	22.8	39	58.9	34	39.6	73	46.6
	Illness and Other	30.0	92	62.2	142	49.5	234	60.7
	Mutual Aid	--	--	--	--	--	0	--
	MVA	29.5	22	55.6	12	38.7	34	35.3
	Overdose and Psychiatric	19.8	3	63.5	6	49.0	9	66.7
	Seizure and Unconsciousness	22.3	6	68.2	11	52.0	17	64.7
	Total	**28.9**	**187**	**60.9**	**273**	**47.9**	**460**	**59.3**
Saint Paul Park	Breathing Problem	19.9	7	60.0	32	52.8	39	82.1
	Cardiac and Stroke	44.7	9	66.0	33	61.4	42	78.6
	Fall and Injury	22.1	41	60.3	64	45.4	105	61.0
	Illness and Other	31.2	61	64.6	134	54.1	195	68.7
	Mutual Aid	--	--	--	--	--	0	--
	MVA	22.3	3	59.2	5	45.4	8	62.5

RMS/NFIRS City	CAD Call Type	Non-Transport		Transport		Total		
		Average Call Duration (Minutes)	Number of Calls	Average Call Duration (Minutes)	Number of Calls	Average Call Duration (Minutes)	Number of Calls	Transport Rate (%)
Saint Paul Park	Overdose and Psychiatric	20.0	3	67.0	2	38.8	5	40.0
	Seizure and Unconsciousness	26.0	4	59.9	19	54.0	23	82.6
	Total	**28.0**	**128**	**62.9**	**289**	**52.2**	**417**	**69.3**
Township of Grey Cloud Island	Breathing Problem	28.1	1	73.9	1	51.0	2	50.0
	Cardiac and Stroke	58.4	2	77.4	2	67.9	4	50.0
	Fall and Injury	36.8	3	73.5	2	51.4	5	40.0
	Illness and Other	24.0	28	95.4	4	32.9	32	12.5
	Mutual Aid	--	--	--	--	--	0	--
	MVA	15.9	1	75.8	2	55.8	3	66.7
	Overdose and Psychiatric	--	--	--	--	--	0	--
	Seizure and Unconsciousness	36.8	2	76.0	7	67.3	9	77.8
	Total	**27.5**	**37**	**80.1**	**18**	**44.7**	**55**	**32.7**
All	Breathing Problem	26.9	80	55.6	228	48.1	308	74.0
	Cardiac and Stroke	37.9	105	62.5	282	55.9	387	72.9
	Fall and Injury	28.7	307	59.2	443	46.7	750	59.1
	Illness and Other	30.0	520	64.6	1,009	52.8	1,529	66.0
	Mutual Aid	17.6	2	69.0	2	43.3	4	50.0
	MVA	21.7	126	60.3	44	31.7	170	25.9
	Overdose and Psychiatric	31.3	19	61.7	39	51.8	58	67.2
	Seizure and Unconsciousness	27.8	77	61.3	152	50.0	229	66.4
	Total	**29.1**	**1,236**	**62.0**	**2,199**	**50.1**	**3,435**	**64.0**

Table 35: EMS Non-Transport and Transport Calls by RMS/NFIRS City and RMS/NFIRS Call Type – Any Unit in CGFD's Jurisdiction

		Non-Transport		Transport		Total		
RMS/NFIRS City	RMS/NFIRS Call Type	Average Call Duration (Minutes)	Number of Calls	Average Call Duration (Minutes)	Number of Calls	Average Call Duration (Minutes)	Number of Calls	Transport Rate (%)
Cottage Grove	EMS	32.8	646	61.8	1,596	53.4	2,242	71.2
	MVA	28.6	65	61.2	23	37.1	88	26.1
	Total	**32.4**	**711**	**61.8**	**1,619**	**52.8**	**2,330**	**69.5**
Newport	EMS	31.5	119	61.1	263	51.9	382	68.8
	MVA	49.9	10	54.7	10	52.3	20	50.0
	Total	**32.9**	**129**	**60.9**	**273**	**51.9**	**402**	**67.9**
Saint Paul Park	EMS	32.0	83	62.9	285	56.0	368	77.4
	MVA	26.2	6	59.5	4	39.5	10	40.0
	Total	**31.6**	**89**	**62.9**	**289**	**55.5**	**378**	**76.5**
Township of Grey Cloud Island	EMS	31.5	26	80.6	16	50.2	42	38.1
	MVA	--	0	75.8	2	75.8	2	100.0
	Total	**31.5**	**26**	**80.1**	**18**	**51.4**	**44**	**40.9**
All	EMS	32.5	874	62.0	2,160	53.5	3,034	71.2
	MVA	31.1	81	60.1	39	40.5	120	32.5
	Total	**32.4**	**955**	**62.0**	**2,199**	**53.0**	**3,154**	**69.7**

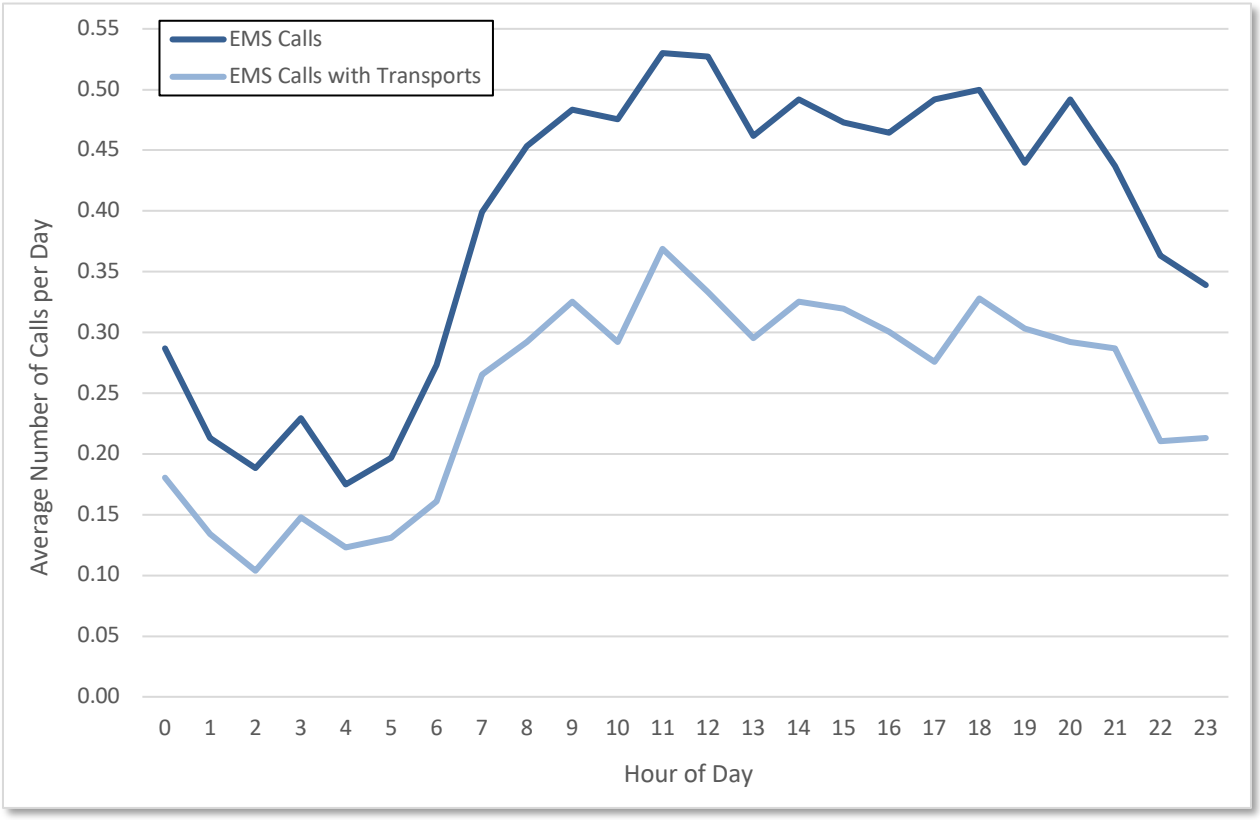
EMS Calls by Hour of Day

We also analyzed variation of total EMS calls, and EMS transport calls by hour of day based on classification of the CAD incident type values (Table 36; Figure 17). The variation of total EMS calls and EMS transport calls followed a similar pattern. The busiest period for transport requests occurred at 1100, with 135 EMS transport calls occurring in 2024 during that hour of the day. The peak transport rate occurred at 0400, when 45 of 64 EMS calls (70.3%) resulted in a patient transport. The average number of EMS calls with transports per day was 6.0.

Table 36: Total EMS Calls, EMS Calls with Transports, and Average EMS Calls per Day by Hour of Day – Any Unit in CGFD's Jurisdiction

Hour of Day	Number of Calls	Number of Calls with Transports	Average Calls per Day	Average Calls with Transports per Day	Transport Rate (%)
0	105	66	0.3	0.2	62.9
1	78	49	0.2	0.1	62.8
2	69	38	0.2	0.1	55.1
3	84	54	0.2	0.1	64.3
4	64	45	0.2	0.1	70.3
5	72	48	0.2	0.1	66.7
6	100	59	0.3	0.2	59.0
7	146	97	0.4	0.3	66.4
8	166	107	0.5	0.3	64.5
9	177	119	0.5	0.3	67.2
10	174	107	0.5	0.3	61.5
11	194	135	0.5	0.4	69.6
12	193	122	0.5	0.3	63.2
13	169	108	0.5	0.3	63.9
14	180	119	0.5	0.3	66.1
15	173	117	0.5	0.3	67.6
16	170	110	0.5	0.3	64.7
17	180	101	0.5	0.3	56.1
18	183	120	0.5	0.3	65.6
19	161	111	0.4	0.3	68.9
20	180	107	0.5	0.3	59.4
21	160	105	0.4	0.3	65.6
22	133	77	0.4	0.2	57.9
23	124	78	0.3	0.2	62.9
Total	**3,435**	**2,199**	**9.4**	**6.0**	**64.0**

Figure 17: Average EMS Calls and EMS Calls with Transports per Day by Hour of Day – Any Unit in CGFD's Jurisdiction



Transport Responses

Similar to the classification of transport calls, unit responses were considered to represent transport responses if the record in the data file reported "Transport by This EMS Unit" for the "Disposition Incident Patient Disposition (3.4=eDisposition.12/3.5=itDisposition.112)" variable, reported a valid date and time for the "CAD Patient Arrived At Destination Date Time (eTimes.11)" variable, or reported a valid healthcare facility name for the "Disposition Destination Name Delivered Transferred To (eDisposition.01)" variable. To provide a more relevant estimate of the rate of transport responses within CGFD's jurisdiction during 2024, only responses made by CGFD ambulance units were included in these analyses.

Ambulance Response Volume, Response Duration, and Transport Rate

The number of responses to calls within CGFD's jurisdiction indicating a patient transport by a CGFD ambulance during 2024 totaled 2,199, for an overall transport rate of 62.4% (i.e., 2,199 of 3,522 responses made by a CGFD ambulance unit; Table 37) , averaging 6.0 transport responses per day (Table 39). Table 37 presents data by RMS/NFIRS city, CAD program, and CAD call type, and Table 38 presents data by RMS/NFIRS city, program, and call type. Note that in Table 38, select fire call types are presented for Newport, Saint Paul Park, and Township of Grey Cloud Island because the calls were originally classified as EMS calls at the time of dispatch (i.e., based on CAD data) which resulted in the classification of these calls and related responses as being within CGFD's jurisdiction.

Duration of a response is defined as the difference between the unit dispatch date and time, and unit clear date and time (i.e., individual unit busy time or time on task). Busy time values that were negative, zero, or over 24 hours were excluded, as applicable. The average duration of a non-transport response was 20.8 minutes, and the average duration of a transport response was 56.6 minutes.

Table 37: Non-Transport and Transport Responses by RMS/NFIRS City, CAD Program, and CAD Call Type – CGFD Ambulance Units in CGFD's Jurisdiction

RMS/NFIRS City	CAD Program and Call Type	Non-Transport		Transport		Total		
		Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Transport Rate (%)
Cottage Grove	**EMS**	**21.0**	**795**	**56.3**	**1,618**	**44.7**	**2,413**	**67.1**
	Breathing Problem	18.2	54	52.2	164	43.8	218	75.2
	Cardiac and Stroke	29.6	74	57.9	211	50.6	285	74.0
	Fall and Injury	22.2	197	55.4	343	43.2	540	63.5
	Illness and Other	20.4	305	57.1	730	46.3	1,035	70.5
	Mutual Aid	10.2	2	65.2	2	37.7	4	50.0
	MVA	13.3	89	58.3	24	22.9	113	21.2
	Overdose and Psychiatric	29.8	15	58.0	31	48.8	46	67.4
	Seizure and Unconsciousness	22.5	59	55.8	113	44.4	172	65.7
	Fire	**20.7**	**158**	**73.0**	**1**	**21.1**	**159**	**0.6**
	Brush Fire	65.9	1	--	0	65.9	1	0.0
	Fire Alarm	12.5	74	--	0	12.5	74	0.0
	Fire Other	36.2	16	73.0	1	38.4	17	5.9
	Hazardous Condition	17.8	27	--	0	17.8	27	0.0
	Outside Fire	20.2	13	--	0	20.2	13	0.0
	Structure Fire	40.2	17	--	0	40.2	17	0.0
	Vehicle Fire	28.3	10	--	0	28.3	10	0.0
	Hazmat	**20.5**	**13**	**--**	**0**	**20.5**	**13**	**0.0**
	Hazmat	20.5	13	--	0	20.5	13	0.0
	Rescue	**12.3**	**5**	**--**	**0**	**12.3**	**5**	**0.0**
	Rescue	12.3	5	-	0	12.3	5	0.0
	Total	**20.9**	**971**	**56.3**	**1,619**	**43.1**	**2,590**	**62.5**

RMS/NFIRS City	CAD Program and Call Type	Non-Transport		Transport		Total		
		Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Transport Rate (%)
Newport	**EMS**	**19.9**	**186**	**55.2**	**272**	**40.9**	**458**	**59.4**
	Breathing Problem	16.2	7	51.8	31	45.3	38	81.6
	Cardiac and Stroke	34.0	20	59.6	37	50.6	57	64.9
	Fall and Injury	18.1	39	54.7	34	35.2	73	46.6
	Illness and Other	18.8	86	54.0	142	40.7	228	62.3
	Mutual Aid	--	--	--	--	--	0	--
	MVA	17.9	25	52.7	11	28.5	36	30.6
	Overdose and Psychiatric	17.2	3	59.5	6	45.4	9	66.7
	Seizure and Unconsciousness	14.9	6	66.4	11	48.2	17	64.7
	Total	**19.9**	**186**	**55.2**	**272**	**40.9**	**458**	**59.4**
Saint Paul Park	**EMS**	**20.2**	**131**	**58.4**	**290**	**46.5**	**421**	**68.9**
	Breathing Problem	18.7	10	57.3	32	48.1	42	76.2
	Cardiac and Stroke	35.2	11	63.7	33	56.6	44	75.0
	Fall and Injury	17.5	40	57.4	64	42.1	104	61.5
	Illness and Other	20.2	61	58.3	135	46.4	196	68.9
	Mutual Aid	--	--	--	--	--	0	--
	MVA	17.2	3	56.4	5	41.7	8	62.5
	Overdose and Psychiatric	16.9	3	65.3	2	36.3	5	40.0
	Seizure and Unconsciousness	13.6	3	54.9	19	49.3	22	86.4
	Total	**20.2**	**131**	**58.4**	**290**	**46.5**	**421**	**68.9**
Township of Grey Cloud Island	**EMS**	**22.0**	**35**	**76.9**	**18**	**40.6**	**53**	**34.0**
	Breathing Problem	26.9	1	72.0	1	49.4	2	50.0
	Cardiac and Stroke	31.3	2	75.0	2	53.1	4	50.0
	Fall and Injury	27.6	2	66.8	2	47.2	4	50.0
	Illness and Other	20.3	27	92.0	4	29.5	31	12.9
	Mutual Aid	--	--	--	--	--	0	--

RMS/NFIRS City	CAD Program and Call Type	Non-Transport		Transport		Total		
		Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Transport Rate (%)
Township of Grey Cloud Island	MVA	12.9	1	74.3	2	53.8	3	66.7
	Overdose and Psychiatric	--	--	--	--	--	0	--
	Seizure and Unconsciousness	32.3	2	73.3	7	64.2	9	77.8
	Total	**22.0**	**35**	**76.9**	**18**	**40.6**	**53**	**34.0**
All	**EMS**	**20.8**	**1,147**	**56.6**	**2,198**	**44.3**	**3,345**	**65.7**
	Breathing Problem	18.2	72	53.0	228	44.6	300	76.0
	Cardiac and Stroke	31.0	107	59.0	283	51.3	390	72.6
	Fall and Injury	21.0	278	55.7	443	42.3	721	61.4
	Illness and Other	20.0	479	57.0	1,011	45.1	1,490	67.9
	Mutual Aid	10.2	2	65.2	2	37.7	4	50.0
	MVA	14.4	118	57.4	42	25.7	160	26.3
	Overdose and Psychiatric	26.2	21	58.6	39	47.2	60	65.0
	Seizure and Unconsciousness	21.8	70	57.3	150	46.0	220	68.2
	Fire	**20.7**	**158**	**73.0**	**1**	**21.1**	**159**	**0.6**
	Brush Fire	65.9	1	--	0	65.9	1	0.0
	Fire Alarm	12.5	74	--	0	12.5	74	0.0
	Fire Other	36.2	16	73.0	1	38.4	17	5.9
	Hazardous Condition	17.8	27	--	0	17.8	27	0.0
	Outside Fire	20.2	13	--	0	20.2	13	0.0
	Structure Fire	40.2	17	--	0	40.2	17	0.0
	Vehicle Fire	28.3	10	--	0	28.3	10	0.0
	Hazmat	**20.5**	**13**	**--**	**0**	**20.5**	**13**	**0.0**
	Hazmat	20.5	13	--	0	20.5	13	0.0
	Rescue	**12.3**	**5**	**--**	**0**	**12.3**	**5**	**0.0**
	Rescue	12.3	5	--	0	12.3	5	0.0
	Total	**20.8**	**1,323**	**56.6**	**2,199**	**43.2**	**3,522**	**62.4**

Table 38: Non-Transport and Transport Responses by RMS/NFIRS City, Program, and Call Type – CGFD Ambulance Units in CGFD's Jurisdiction

RMS/NFIRS City	RMS/NFIRS Program and Call Type[1]	Non-Transport		Transport		Total		
		Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Transport Rate (%)
Cottage Grove	**EMS**	**24.3**	**616**	**56.3**	**1,618**	**47.5**	**2,234**	**72.4**
	EMS	25.0	559	56.3	1,596	48.2	2,155	74.1
	MVA	18.0	57	57.7	22	29.1	79	27.8
	Fire	**14.7**	**335**	**--**	**0**	**14.7**	**335**	**0.0**
	False Alarm & False Call	14.2	47	--	0	14.2	47	0.0
	Good Intent Call	10.6	219	--	0	10.6	219	0.0
	Hazardous Condition	31.5	10	--	0	31.5	10	0.0
	Natural Vegetation Fire	30.6	3	--	0	30.6	3	0.0
	Outside Rubbish Fire	9.1	4	--	0	9.1	4	0.0
	Service Call	28.0	19	--	0	28.0	19	0.0
	Severe Weather & Natural Disaster	23.1	1	--	0	23.1	1	0.0
	Special Outside Fire	7.8	2	--	0	7.8	2	0.0
	Structure Fire	28.0	19	--	0	28.0	19	0.0
	Vehicle Fire	36.6	11	--	0	36.6	11	0.0
	Hazmat	**19.8**	**20**	**--**	**0**	**19.8**	**20**	**0.0**
	Hazmat	19.8	20	--	0	19.8	20	0.0
	Rescue	**--**	**0**	**72.9**	**1**	**72.9**	**1**	**100.0**
	Rescue	--	0	72.9	1	72.9	1	100.0
	Total	**20.9**	**971**	**56.3**	**1,619**	**43.1**	**2,590**	**62.5**
Newport	**EMS**	**24.4**	**131**	**55.2**	**272**	**45.2**	**403**	**67.5**
	EMS	23.9	119	55.2	263	45.5	382	68.8
	MVA	29.2	12	53.4	9	39.5	21	42.9
	Fire	**9.3**	**55**	**--**	**0**	**9.3**	**55**	**0.0**
	Good Intent Call	9.3	55	--	0	9.3	55	0.0
	Total	**19.9**	**186**	**55.2**	**272**	**40.9**	**458**	**59.4**

RMS/NFIRS City	RMS/NFIRS Program and Call Type[1]	Non-Transport		Transport		Total		
		Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Transport Rate (%)
Saint Paul Park	**EMS**	**23.9**	**92**	**58.4**	**290**	**50.1**	**382**	**75.9**
	EMS	24.2	86	58.4	286	50.5	372	76.9
	MVA	19.1	6	54.9	4	33.4	10	40.0
	Fire	**11.6**	**39**	**--**	**0**	**11.6**	**39**	**0.0**
	Good Intent Call	10.9	38	--	0	10.9	38	0.0
	Service Call	38.0	1	--	0	38.0	1	0.0
	Total	**20.2**	**131**	**58.4**	**290**	**46.5**	**421**	**68.9**
Township of Grey Cloud Island	**EMS**	**24.6**	**25**	**76.9**	**18**	**46.5**	**43**	**41.9**
	EMS	24.6	25	77.3	16	45.2	41	39.0
	MVA	0.0	0	74.3	2	74.3	2	100.0
	Fire	**15.4**	**10**	**--**	**0**	**15.4**	**10**	**0.0**
	Good Intent Call	15.4	10	--	0	15.4	10	0.0
	Total	**22.0**	**35**	**76.9**	**18**	**40.6**	**53**	**34.0**
All	**EMS**	**24.3**	**864**	**56.6**	**2,198**	**47.5**	**3,062**	**71.8**
	EMS	24.7	789	56.6	2,161	48.1	2,950	73.3
	MVA	19.9	75	57.2	37	32.2	112	33.0
	Fire	**13.8**	**439**	**--**	**0**	**13.8**	**439**	**0.0**
	False Alarm & False Call	14.2	47	--	0	14.2	47	0.0
	Good Intent Call	10.6	322	--	0	10.6	322	0.0
	Hazardous Condition	31.5	10	--	0	31.5	10	0.0
	Natural Vegetation Fire	30.6	3	--	0	30.6	3	0.0
	Outside Rubbish Fire	9.1	4	--	0	9.1	4	0.0
	Service Call	28.5	20	--	0	28.5	20	0.0
	Severe Weather & Natural Disaster	23.1	1	--	0	23.1	1	0.0
	Special Outside Fire	7.8	2	--	0	7.8	2	0.0
	Structure Fire	28.0	19	--	0	28.0	19	0.0

RMS/NFIRS City	RMS/NFIRS Program and Call Type[1]	Non-Transport		Transport		Total		
		Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Average Response Duration (Minutes)	Number of Responses	Transport Rate (%)
All	Vehicle Fire	36.6	11	--	0	36.6	11	0.0
	Hazmat	**19.8**	**20**	**--**	**0**	**19.8**	**20**	**0.0**
	Hazmat	19.8	20	--	0	19.8	20	0.0
	Rescue	**--**	**0**	**72.9**	**1**	**72.9**	**1**	**100.0**
	Rescue	--	0	72.9	1	72.9	1	100.0
	Total	**20.8**	**1,323**	**56.6**	**2,199**	**43.2**	**3,522**	**62.4**

[1]Select fire call types are presented for Newport, Saint Paul Park, and Township of Grey Cloud Island because the calls were originally classified as EMS calls at the time of dispatch (i.e., based on CAD data), which resulted in the classification of these calls and related responses as being within CGFD's jurisdiction.

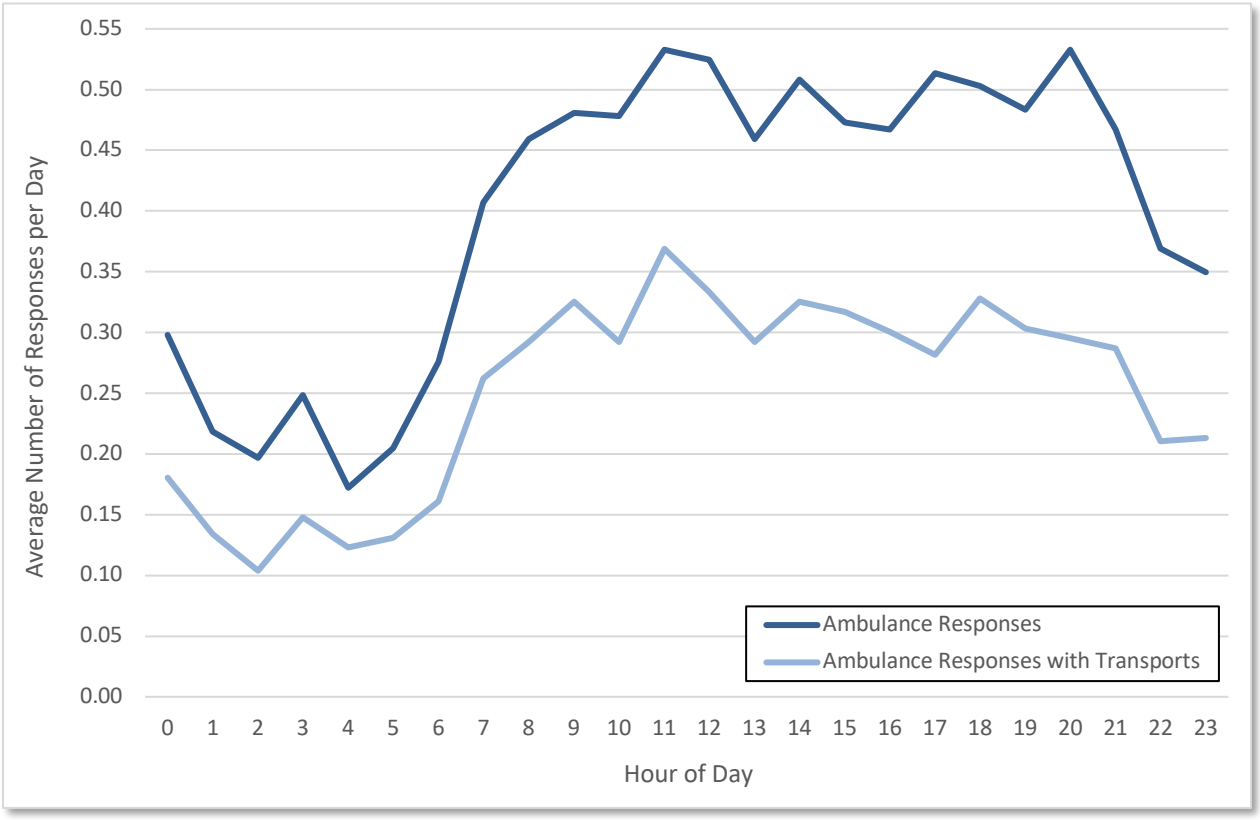
Ambulance Responses by Hour of Day

We also analyzed variation of total CGFD ambulance responses and CGFD ambulance transport responses within CGFD's jurisdiction by hour of day (Table 39; Figure 18). The busiest period for CGFD ambulance transport responses occurred at 1100, with 135 transport responses occurring in 2024 during that hour of the day. The peak transport rate occurred at 0400, when 45 of 63 CGFD ambulance responses (71.4%) resulted in a patient transport. The average number of CGFD ambulance responses with transports per day was 6.0.

Table 39: Total Responses, Responses with Transports, and Average Responses per Day by Hour of Day – CGFD Ambulance Units in CGFD's Jurisdiction

Hour of Day	Number of Responses	Number of Responses with Transports	Average Responses per Day	Average Responses with Transports per Day	Transport Rate (%)
0	109	66	0.3	0.2	60.6
1	80	49	0.2	0.1	61.3
2	72	38	0.2	0.1	52.8
3	91	54	0.2	0.1	59.3
4	63	45	0.2	0.1	71.4
5	75	48	0.2	0.1	64.0
6	101	59	0.3	0.2	58.4
7	149	96	0.4	0.3	64.4
8	168	107	0.5	0.3	63.7
9	176	119	0.5	0.3	67.6
10	175	107	0.5	0.3	61.1
11	195	135	0.5	0.4	69.2
12	192	122	0.5	0.3	63.5
13	168	107	0.5	0.3	63.7
14	186	119	0.5	0.3	64.0
15	173	116	0.5	0.3	67.1
16	171	110	0.5	0.3	64.3
17	188	103	0.5	0.3	54.8
18	184	120	0.5	0.3	65.2
19	177	111	0.5	0.3	62.7
20	195	108	0.5	0.3	55.4
21	171	105	0.5	0.3	61.4
22	135	77	0.4	0.2	57.0
23	128	78	0.3	0.2	60.9
Total	**3,522**	**2,199**	**9.6**	**6.0**	**62.4**

Figure 18: Average Number of Responses and Responses with Transports per Day by Hour of Day – CGFD Ambulance Units in CGFD's Jurisdiction



Transport Destination and Wall Time

Transport response volume and average wall time metrics were calculated by transport destination (Table 40, sorted in descending order by number of responses). Wall time was defined as the difference between the "CAD Patient Arrived At Destination Date Time (eTimes.11)" variable and the "CAD Apparatus Resource Clear Date Time (FD18.5)" variable.

Patients were most frequently transported to Woodwinds Hospital (45.6%; 1,003/2,199), followed by Regions Hospital (18.5%; 407/2,199), and United Hospital (17.6%; 388/2,199). Overall, average wall time was 15.5 minutes across all transport destinations, ranging from 10.0 to 50.1 minutes during 2024.

Table 40: Total Responses and Average Wall Time by Transport Destination, Sorted in Descending Order by Number of Responses – CGFD Ambulance Units in CGFD's Jurisdiction

Transport Destination	Number of Responses	Percentage of Responses	Average Wall Time (Minutes)[1]
Woodwinds Hospital	1,003	45.6	11.9
Regions Hospital	407	18.5	19.4
United Hospital	388	17.6	19.3
Regina Medical Center	221	10.1	14.0
St. Paul Children's Hospital	100	4.5	20.3
Veterans Affairs Medical Center	39	1.8	21.2
St. John's Hospital	11	0.5	20.6
University of Minnesota Medical Center - East Bank	11	0.5	22.3
University of Minnesota Medical Center- West Bank (Riverside)	6	0.3	21.9
Not Reported	4	0.2	10.0
University of Minnesota Masonic Children's Hospital	3	0.1	19.6
Lakeview Hospital - Stillwater	2	0.1	36.0
Minneapolis Children's Hospital	2	0.1	28.4
Abbott Northwestern Hospital	1	< 0.1	50.1
North Memorial Hospital	1	< 0.1	18.5
Total	**2,199**	**100.0**	**15.5**

[1]When the number of responses = 1, the value reported for "Average Wall Time (Minutes)" is the observed wall time for that one response.

SYSTEM RESILIENCY

Unit Hour Utilization

Another measure, time on task, is necessary to evaluate best practices in efficient system delivery and consider the impact workload has on personnel. Unit Hour Utilization (UHU) values represent the proportion of the work period (e.g., 24 hours) that is utilized responding to requests for service.

Historically, the International Association of Fire Fighters (IAFF) has recommended that 24-hour units utilize 0.30, or 30% workload as an upper threshold.[6] In other words, this recommendation would have personnel spend no more than 7.2 hours per day on emergency incidents. These thresholds take into consideration the necessity to accomplish non-emergency activities such as training, health and wellness, public education, and fire inspections. The 4th edition of the IAFF EMS Guidebook no longer specifically identifies an upper threshold. However, *FITCH* recommends that an upper unit utilization threshold of approximately 0.30, or 30%, would be considered best practice. In other words, units and personnel should not exceed 30%, or 7.2 hours, of their work day responding to calls. These recommendations are also validated in the literature. For example, in their review of the City of Rolling Meadows, the Illinois Fire Chiefs Association utilized a UHU threshold of 0.30 as an indication to add additional resources.[7] Similarly, in a standards of cover study facilitated by the Center for Public Safety Excellence, the Castle Rock Fire and Rescue Department utilizes a UHU of 0.30 as the upper limit in their standards of cover due to the necessity to accomplish other non-emergency activities.[8]

Unit response volume and busy time analyses included all CGFD units designated by CGFD leadership as valid units (Table 41; Table 42 presents response volume by unit and program). UHU analyses included all units except for Chief Officer Car, Captain, and Fire Marshal units.

Based on daily staffing data provided by CGFD, the average number of CGFD teams (i.e., crews or companies) staffed per day across the 366 days of 2024 ranged from 1.00 to 2.83, and averaged 1.73 teams staffed per day overall for 2024. Considering 1.73 teams available 24 hours per day during 2024, maximum available busy hours for the department would be 15,196.32 (i.e., 24 hours x 366 days x 1.73 teams = 15,196.32). The observed combined number of busy hours for all units during 2024, excluding any Chief Officer Car, Captain, or Fire Marshal unit, was 3,137.79, for a departmental UHU value of 0.21 (i.e., 3,137.79/15,196.32 = 0.21).

UHU calculations by cross-staffed teams are presented in Table 43 and Figure 19. Both CGFD cross-staffed teams had UHU values < 0.30 during 2024 (Figure 19).

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[6] International Association of Firefighters. (1995). Emergency *Medical Services: A Guidebook for Fire-Based Systems.* Washington, DC: Author. (p. 11)
[7] Illinois Fire Chiefs Association. (2012). An *Assessment of Deployment and Station Location: Rolling Meadows Fire Department.* Rolling Meadows, Illinois: Author. (pp. 54-55)
[8] Castle Rock Fire and Rescue Department. (2011). Community *Risk Analysis and Standards of Cover.* Castle Rock, Colorado: Author. (p. 58)

Table 41: Unit Response Volume and Busy Time Hours – CGFD Units in All Jurisdictions

Unit ID	Unit Type	Number of Responses[1]	Total Busy Hours	Average Busy Minutes per Response
CGAMB1	Ambulance	2,259	1,574.6	41.8
CGAMB2	Ambulance	673	486.7	43.4
CGAMB3	Ambulance	1,178	782.4	39.9
CGB2	Brush Truck	12	6.0	29.9
CGCH1	Chief Officer Car	58	32.5	33.6
CGCH2	Chief Officer Car	68	40.1	35.3
CGCH3	Chief Officer Car	33	13.1	23.8
CGCT1	Captain	46	32.0	41.7
CGCT2	Captain	70	28.0	24.0
CGCT3	Captain	64	34.3	32.2
CGE1	Engine	2	1.2	36.2
CGE3	Tender	7	6.8	58.3
CGE4	Engine	621	196.8	19.0
CGFM1	Fire Marshal	16	8.1	30.4
CGL1	Ladder Truck	82	38.4	28.1
CGL2	Ladder Truck	36	14.7	24.5
CGU1	Utility	46	30.2	39.4
Total		**5,271**	**3,325.8**	**37.9**

[1]"Number of Responses" reflects the total number of records in the data file associated with responses made by valid units assigned to CGFD.

Table 42: Unit Response Volume by CAD Program – CGFD Units in All Jurisdictions

		Number of Responses[1] by CAD Program				
Unit ID	Unit Type	EMS	Fire	Hazmat	Rescue	Total
CGAMB1	Ambulance	2,137	105	10	7	2,259
CGAMB2	Ambulance	630	39	2	2	673
CGAMB3	Ambulance	1,141	32	3	2	1,178
CGB2	Brush Truck	1	11	0	0	12
CGCH1	Chief Officer Car	36	21	1	0	58
CGCH2	Chief Officer Car	38	30	0	0	68
CGCH3	Chief Officer Car	17	16	0	0	33
CGCT1	Captain	40	5	0	1	46
CGCT2	Captain	57	11	1	1	70
CGCT3	Captain	31	33	0	0	64
CGE1	Engine	1	1	0	0	2
CGE3	Tender	0	7	0	0	7
CGE4	Engine	235	357	24	5	621
CGFM1	Fire Marshal	0	16	0	0	16
CGL1	Ladder Truck	15	66	1	0	82
CGL2	Ladder Truck	11	23	1	1	36
CGU1	Utility	35	11	0	0	46
Total		**4,425**	**784**	**43**	**19**	**5,271**

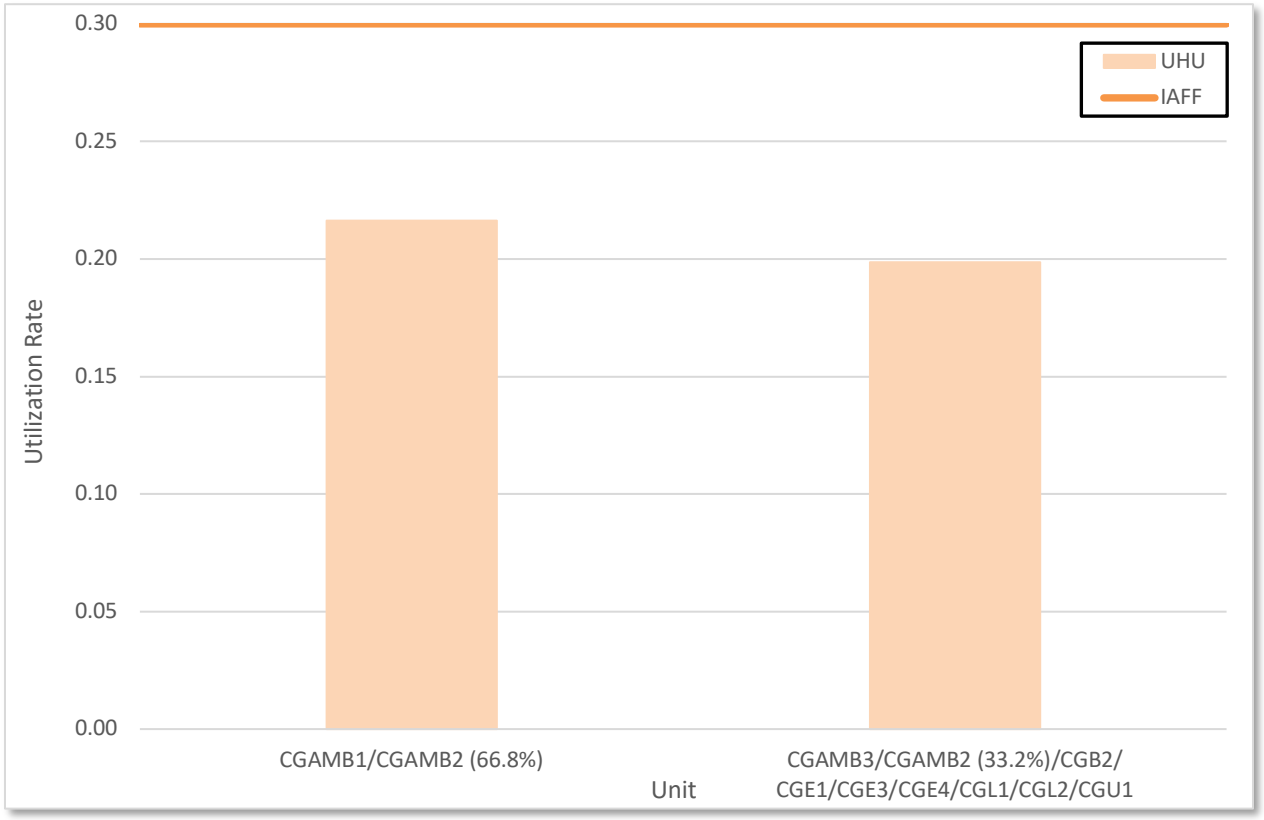
[1]"Number of Responses" reflects the total number of records in the data file associated with responses made by valid units assigned to CGFD.

Table 43: Unit Hour Utilization and Total Busy Hours

Unit ID	Total Busy Hours	UHU
CGAMB1/CGAMB2 (66.8%)[1]	1,899.7	0.22[2]
CGAMB3/CGAMB2 (33.2%)[1]/CGB2/CGE1/CGE3/CGE4/CGL1/CGL2/CGU1	1,238.1	0.20[2]

[1]The busy hours for reserve ambulance CGAMB2 were divided between CGAMB1 and CGAMB3, as follows: Together, CGAMB1 and CGAMB3 were busy for a total of approximately 2,357.0 hours during 2024. The busy hours for CGAMB1 represented 66.8053% of the combined hours for the two ambulances, and the busy hours for CGAMB3 represented 33.1947% of the combined hours for the two ambulances. These percentages were used to apportion the busy hours for reserve ambulance CGAMB2 to CGAMB1 and CGAMB3, such that 325.1412 hours (i.e., 66.8053% of 486.7 hours) were added to the busy time for CGAMB1, and 161.5588 hours (i.e., 33.1947% of 486.7 hours) were added to the busy time for CGAMB3.
[2]CGAMB1 was considered to be available for 8,784 hours during 2024 (i.e., 24 hours per day for all 366 days of the year). CGAMB3 and its cross-staffed units were considered to be available for 71% of 2024 hours, or for 6,236.64 hours.

Figure 19: Unit Hour Utilization



Overlapped Calls Analysis

Overlapped or simultaneous calls are defined as another call being received in a jurisdiction or demand zone while one or more calls are already ongoing for the same jurisdiction or demand zone. For example, if there is an ongoing call in CGFD's jurisdiction wherein all units have not yet been cleared, and one or more requests for service subsequently occur in CGFD's jurisdiction, the subsequent call or calls would be captured as overlapping.

Understanding the percentage of overlapped calls may help to determine the number of units to staff to meet the needs of each jurisdiction. In general, the larger the call volume for a jurisdiction or demand zone, the greater the likelihood of overlapped calls occurring. The distribution of the demand throughout the day will impact the chance of having overlapped calls. Additionally, the duration of a call plays a significant role; the longer it takes to clear a request, the greater the likelihood of having an overlapping request.

CGFD experienced 39.9% overlapped calls across all jurisdictions during 2024, and 34.1% overlapped calls when considering only the calls that occurred within CGFD's jurisdiction (i.e., including the additional RMS/NFIRS city values for which CGFD is also first due for EMS calls; Table 44).

Table 44: Overlapped Calls by RMS/NFIRS Jurisdiction

RMS/NFIRS Jurisdiction	Overlapped Calls	Total Calls	Percentage of Overlapped Calls
All	1,966	4,930	39.9
Within CGFD	1,436	4,212	34.1

BASELINE DATA

Community Demand

From the reporting periods of 2022 to 2024, year-over-year (YoY) growth related to total call volume across all jurisdictions ranged from 1.9% to 7.1% (Table 45 by CAD program and call type; Table 51 by RMS/NFIRS program and call type; Table 52 by ePCR/NEMSIS call type and complaint). Average number of calls per day across all jurisdictions increased from 12.4 in 2022 to 13.5 in 2024. Data are presented for calls by CAD program, RMS/NFIRS jurisdiction, RMS/NFIRS city, and reporting period in Table 46. CGFD's jurisdiction included the RMS/NFIRS city values of Cottage Grove, Newport, Saint Paul Park, and Township of Grey Cloud Island for EMS calls, and the RMS/NFIRS city value of Cottage Grove for fire, hazmat, and rescue calls.

Table 45: Number of Calls by CAD Program, CAD Call Type, and Reporting Period – All Jurisdictions

CAD Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
EMS	**4,064**	**4,127**	**4,346**
Breathing Problem	486	432	386
Cardiac and Stroke	510	462	490
Fall and Injury	814	854	926
Illness and Other	1,646	1,789	1,906
Mutual Aid	72	58	47
MVA	192	219	250
Overdose and Psychiatric	76	62	66
Seizure and Unconsciousness	268	251	275
Fire	**405**	**431**	**542**
Brush Fire	9	13	6
Fire Alarm	218	198	245
Fire Other	28	46	69
Hazardous Condition	40	70	97
Mutual Aid	8	14	19
Outside Fire	19	15	18
Structure Fire	68	67	67
Vehicle Fire	15	8	21
Hazmat	**34**	**32**	**28**
Hazmat	34	32	28
Rescue	**13**	**13**	**14**
Rescue	13	13	14
Total	**4,516**	**4,603**	**4,930**
Average Calls per Day[3]	**12.4**	**12.6**	**13.5**
YoY Growth	**N/A**	**1.9%**	**7.1%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Figure 20 depicts observed annual call volume from 2022 to 2024, and projected growth in annual call volume from 2025 to 2034. Projections were made based on the Compound Annual Growth Rate (CAGR; 4.5%), or annualized average, derived from three years of observed call volume data, as well as one lower and one higher hypothetical annual growth rate scenario to provide a plausible range around the CAGR. Because the observed range of YoY growth from 2022 to 2024 was 1.9% to 7.1%, range values of 1.0% and 8.0% were selected.

Figure 20: Observed and Projected Growth in Call Volume 2022-2034 – All Jurisdictions

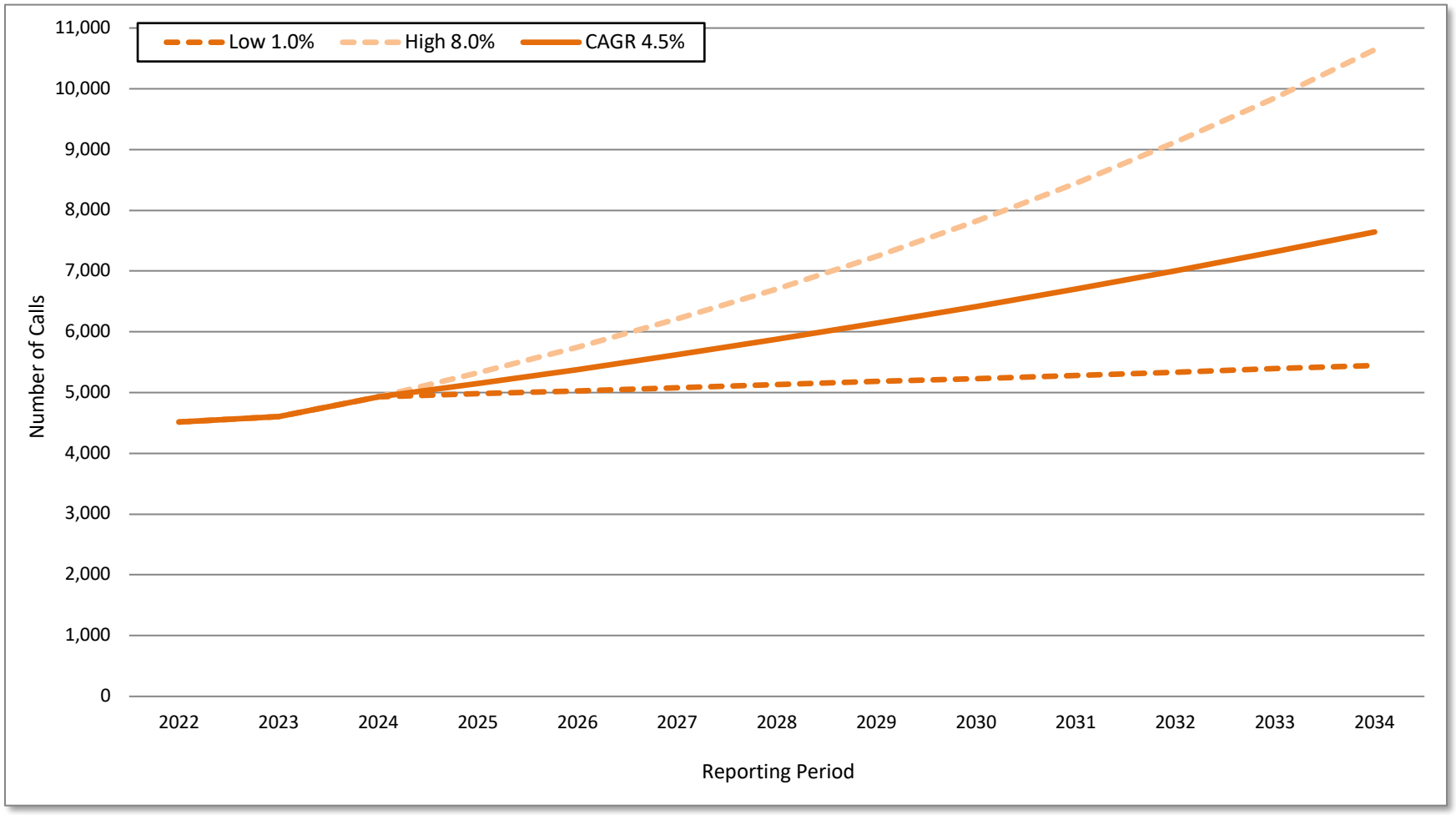


Table 46: Number of Calls by CAD Program, RMS/NFIRS Jurisdiction, RMS/NFIRS City, and Reporting Period

CAD Program[2]	RMS/NFIRS Jurisdiction	RMS/NFIRS City	Reporting Period[1] 2022	2023	2024
EMS	Within CGFD	Cottage Grove	2,537	2,638	2,693
		Newport	466	506	519
		Saint Paul Park	485	476	467
		Township of Grey Cloud Island	35	35	58
		Total	**3,523**	**3,655**	**3,737**
		Average Calls per Day[3]	**9.7**	**10.0**	**10.2**
		YoY Growth	**N/A**	**3.7%**	**2.2%**
	Outside of CGFD	Afton	1	0	0
		Burnsville	0	0	14
		Denmark Township	6	1	1
		Hastings	9	7	3
		Inver Grove Heights	47	42	25
		Lake Elmo	1	0	0
		Mahtomedi	0	1	0
		Maplewood	0	0	0
		Mendota Heights	1	0	0
		Nininger Township	1	0	0
		Oak Park Heights	0	0	0
		Oakdale	2	0	1
		Ravenna Township	1	0	0
		Saint Paul	1	1	1
		South Saint Paul	8	6	6
		West Saint Paul	4	5	2
		Woodbury	459	409	556
		Total	**541**	**472**	**609**
		Average Calls per Day[3]	**1.5**	**1.3**	**1.7**
		YoY Growth	**N/A**	**-12.8%**	**29.0%**
	All	**Total**	**4,064**	**4,127**	**4,346**
		Average Calls per Day[3]	**11.1**	**11.3**	**11.9**
		YoY Growth	**N/A**	**1.6%**	**5.3%**
Fire	Within CGFD	Cottage Grove	353	349	444
		Total	**353**	**349**	**444**
		Average Calls per Day[3]	**1.0**	**1.0**	**1.2**
		YoY Growth	**N/A**	**-1.1%**	**27.2%**
	Outside of CGFD	Afton	5	0	0
		Burnsville	0	0	2
		Denmark Township	0	3	4
		Hastings	4	10	18
		Inver Grove Heights	1	1	0
		Lake Elmo	0	0	0

CAD Program[2]	RMS/NFIRS Jurisdiction	RMS/NFIRS City	Reporting Period[1] 2022	2023	2024
Fire	Outside of CGFD	Mahtomedi	0	0	0
		Maplewood	0	0	1
		Mendota Heights	0	0	0
		Newport	8	5	6
		Nininger Township	1	0	0
		Oak Park Heights	0	0	0
		Oakdale	0	0	0
		Ravenna Township	1	0	0
		Saint Paul	0	0	0
		Saint Paul Park	8	4	6
		South Saint Paul	0	0	0
		Township of Grey Cloud Island	1	0	0
		West Saint Paul	0	0	0
		Woodbury	23	59	61
		Total	**52**	**82**	**98**
		Average Calls per Day[3]	**0.1**	**0.2**	**0.3**
		YoY Growth	**N/A**	**57.7%**	**19.5%**
	All	**Total**	**405**	**431**	**542**
		Average Calls per Day[3]	**1.1**	**1.2**	**1.5**
		YoY Growth	**N/A**	**6.4%**	**25.8%**
Hazmat	Within CGFD	Cottage Grove	32	26	23
		Total	**32**	**26**	**23**
		Average Calls per Day[3]	**0.1**	**0.1**	**0.1**
		YoY Growth	**N/A**	**-18.8%**	**-11.5%**
	Outside of CGFD	Afton	0	0	0
		Burnsville	0	0	0
		Denmark Township	0	0	0
		Hastings	0	0	0
		Inver Grove Heights	0	0	0
		Lake Elmo	0	0	0
		Mahtomedi	0	0	0
		Maplewood	0	0	0
		Mendota Heights	0	0	0
		Newport	0	0	1
		Nininger Township	0	0	0
		Oak Park Heights	0	0	0
		Oakdale	0	0	0
		Ravenna Township	0	0	0
		Saint Paul	0	0	0
		Saint Paul Park	0	0	0
		South Saint Paul	0	0	0

CAD Program[2]	RMS/NFIRS Jurisdiction	RMS/NFIRS City	Reporting Period[1] 2022	2023	2024
Hazmat	Outside of CGFD	Township of Grey Cloud Island	0	0	0
		West Saint Paul	0	0	0
		Woodbury	2	6	4
		Total	**2**	**6**	**5**
		Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
		YoY Growth	**N/A**	**200.0%**	**-16.7%**
	All	**Total**	**34**	**32**	**28**
		Average Calls per Day[3]	**0.1**	**0.1**	**0.1**
		YoY Growth	**N/A**	**-5.9%**	**-12.5%**
Rescue	Within CGFD	Cottage Grove	7	9	8
		Total	**7**	**9**	**8**
		Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
		YoY Growth	**N/A**	**28.6%**	**-11.1%**
	Outside of CGFD	Afton	0	0	0
		Burnsville	0	0	0
		Denmark Township	0	0	0
		Hastings	0	0	0
		Inver Grove Heights	0	0	0
		Lake Elmo	0	0	0
		Mahtomedi	0	0	0
		Maplewood	0	0	0
		Mendota Heights	0	0	0
		Newport	1	1	3
		Nininger Township	0	0	0
		Oak Park Heights	0	1	0
		Oakdale	0	0	0
		Ravenna Township	0	0	0
		Saint Paul	0	0	0
		Saint Paul Park	3	0	1
		South Saint Paul	0	0	0
		Township of Grey Cloud Island	2	0	0
		West Saint Paul	0	0	0
		Woodbury	0	2	2
		Total	**6**	**4**	**6**
		Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
		YoY Growth	**N/A**	**-33.3%**	**50.0%**
	All	**Total**	**13**	**13**	**14**
		Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
		YoY Growth	**N/A**	**0.0%**	**7.7%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 47 and Table 48 present additional call volume details by CAD call type for EMS calls within and outside of CGFD's jurisdiction, respectively. Only RMS/NFIRS city values and CAD call type values for which there was at least one call received across the three reporting periods are reported in Table 48.

Table 47: Number of Calls by RMS/NFIRS City, CAD Call Type, and Reporting Period – EMS Calls in CGFD's Jurisdiction

RMS/NFIRS City	CAD Call Type[2]	Reporting Period[1] 2022	2023	2024
Cottage Grove	Breathing Problem	307	267	248
	Cardiac and Stroke	331	324	307
	Fall and Injury	553	547	607
	Illness and Other	1,012	1,171	1,165
	Mutual Aid	4	2	4
	MVA	102	110	125
	Overdose and Psychiatric	48	43	47
	Seizure and Unconsciousness	180	174	190
	Total	**2,537**	**2,638**	**2,693**
	Average Calls per Day[3]	**7.0**	**7.2**	**7.4**
	YoY Growth	**N/A**	**4.0%**	**2.1%**
Newport	Breathing Problem	64	55	44
	Cardiac and Stroke	50	51	67
	Fall and Injury	62	80	80
	Illness and Other	218	256	261
	Mutual Aid	0	0	0
	MVA	41	31	39
	Overdose and Psychiatric	8	5	9
	Seizure and Unconsciousness	23	28	19
	Total	**466**	**506**	**519**
	Average Calls per Day[3]	**1.3**	**1.4**	**1.4**
	YoY Growth	**N/A**	**8.6%**	**2.6%**
Saint Paul Park	Breathing Problem	61	59	44
	Cardiac and Stroke	62	43	47
	Fall and Injury	95	132	116
	Illness and Other	216	197	222
	Mutual Aid	1	0	0
	MVA	14	15	9
	Overdose and Psychiatric	12	11	6
	Seizure and Unconsciousness	24	19	23
	Total	**485**	**476**	**467**
	Average Calls per Day[3]	**1.3**	**1.3**	**1.3**
	YoY Growth	**N/A**	**-1.9%**	**-1.9%**

RMS/NFIRS City	CAD Call Type[2]	Reporting Period[1] 2022	2023	2024
Township of Grey Cloud Island	Breathing Problem	4	8	2
	Cardiac and Stroke	3	6	4
	Fall and Injury	2	4	6
	Illness and Other	7	9	33
	Mutual Aid	0	0	0
	MVA	0	2	4
	Overdose and Psychiatric	0	0	0
	Seizure and Unconsciousness	19	6	9
	Total	**35**	**35**	**58**
	Average Calls per Day[3]	**0.1**	**0.1**	**0.2**
	YoY Growth	**N/A**	**0.0%**	**65.7%**
All	Breathing Problem	436	389	338
	Cardiac and Stroke	446	424	425
	Fall and Injury	712	763	809
	Illness and Other	1,453	1,633	1,681
	Mutual Aid	5	2	4
	MVA	157	158	177
	Overdose and Psychiatric	68	59	62
	Seizure and Unconsciousness	246	227	241
	Total	**3,523**	**3,655**	**3,737**
	Average Calls per Day[3]	**9.7**	**10.0**	**10.2**
	YoY Growth	**N/A**	**3.7%**	**2.2%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 48: Number of Calls by RMS/NFIRS City, CAD Call Type, and Reporting Period – EMS Calls in Outside Jurisdictions

RMS/NFIRS City	CAD Call Type[2]	Reporting Period[1] 2022	2023	2024
Afton	Illness and Other	1	0	0
	Total	**1**	**0**	**0**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**0.0**
	YoY Growth	**N/A**	**-100.0%**	**N/A**
Burnsville	Illness and Other	0	0	3
	Mutual Aid	0	0	10
	Overdose and Psychiatric	0	0	1
	Total	**0**	**0**	**14**
	Average Calls per Day[3]	**0.0**	**0.0**	**< 0.1**
	YoY Growth	**N/A**	**N/A**	**N/A**
Denmark Township	Breathing Problem	1	0	0
	Cardiac and Stroke	1	0	0
	Fall and Injury	0	1	1
	Illness and Other	2	0	0
	MVA	1	0	0
	Seizure and Unconsciousness	1	0	0
	Total	**6**	**1**	**1**
	Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
	YoY Growth	**N/A**	**-83.3%**	**0.0%**
Hastings	Cardiac and Stroke	1	0	0
	Illness and Other	0	1	0
	Mutual Aid	8	6	3
	Total	**9**	**7**	**3**
	Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
	YoY Growth	**N/A**	**-22.2%**	**-57.1%**
Inver Grove Heights	Breathing Problem	2	0	1
	Fall and Injury	0	1	0
	Illness and Other	1	1	1
	Mutual Aid	44	39	23
	Seizure and Unconsciousness	0	1	0
	Total	**47**	**42**	**25**
	Average Calls per Day[3]	**0.1**	**0.1**	**0.1**
	YoY Growth	**N/A**	**-10.6%**	**-40.5%**
Lake Elmo	Illness and Other	1	0	0
	Total	**1**	**0**	**0**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**0.0**
	YoY Growth	**N/A**	**-100.0%**	**N/A**

RMS/NFIRS City	CAD Call Type[2]	Reporting Period[1] 2022	2023	2024
Mahtomedi	Cardiac and Stroke	0	1	0
	Total	**0**	**1**	**0**
	Average Calls per Day[3]	**0.0**	**< 0.1**	**0.0**
	YoY Growth	**N/A**	**N/A**	**-100.0%**
Mendota Heights	Mutual Aid	1	0	0
	Total	**1**	**0**	**0**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**0.0**
	YoY Growth	**N/A**	**-100.0%**	**N/A**
Nininger Township	Cardiac and Stroke	1	0	0
	Total	**1**	**0**	**0**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**0.0**
	YoY Growth	**N/A**	**-100.0%**	**N/A**
Oakdale	Illness and Other	2	0	1
	Total	**2**	**0**	**1**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**< 0.1**
	YoY Growth	**N/A**	**-100.0%**	**N/A**
Ravenna Township	Mutual Aid	1	0	0
	Total	**1**	**0**	**0**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**0.0**
	YoY Growth	**N/A**	**-100.0%**	**N/A**
Saint Paul	Mutual Aid	1	0	0
	MVA	0	1	0
	Seizure and Unconsciousness	0	0	1
	Total	**1**	**1**	**1**
	Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
	YoY Growth	**N/A**	**0.0%**	**0.0%**
South Saint Paul	Illness and Other	0	0	1
	Mutual Aid	8	6	5
	Total	**8**	**6**	**6**
	Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
	YoY Growth	**N/A**	**-25.0%**	**0.0%**
West Saint Paul	Mutual Aid	4	5	2
	Total	**4**	**5**	**2**
	Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
	YoY Growth	**N/A**	**25.0%**	**-60.0%**

RMS/NFIRS City	CAD Call Type[2]	Reporting Period[1] 2022	2023	2024
Woodbury	Breathing Problem	47	43	47
	Cardiac and Stroke	61	37	65
	Fall and Injury	102	89	116
	Illness and Other	186	154	219
	MVA	34	60	73
	Overdose and Psychiatric	8	3	3
	Seizure and Unconsciousness	21	23	33
	Total	**459**	**409**	**556**
	Average Calls per Day[3]	**1.3**	**1.1**	**1.5**
	YoY Growth	**N/A**	**-10.9%**	**35.9%**
All	Breathing Problem	50	43	48
	Cardiac and Stroke	64	38	65
	Fall and Injury	102	91	117
	Illness and Other	193	156	225
	Mutual Aid	67	56	43
	MVA	35	61	73
	Overdose and Psychiatric	8	3	4
	Seizure and Unconsciousness	22	24	34
	Total	**541**	**472**	**609**
	Average Calls per Day[3]	**1.5**	**1.3**	**1.7**
	YoY Growth	**N/A**	**-12.8%**	**29.0%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 49 and Table 50 present additional call volume details by CAD program and call type for fire, hazmat, and rescue calls within and outside of CGFD's jurisdiction, respectively. Only RMS/NFIRS city values and CAD program and call type values for which there was at least one call received across the three reporting periods are reported in Table 50.

Table 49: Number of Calls by RMS/NFIRS City, CAD Program, CAD Call Type, and Reporting Period – Fire, Hazmat, and Rescue Calls in CGFD's Jurisdiction

RMS/NFIRS City	CAD Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
Cottage Grove	**Fire**	**353**	**349**	**444**
	Brush Fire	9	10	5
	Fire Alarm	214	181	224
	Fire Other	23	37	63
	Hazardous Condition	39	57	85
	Mutual Aid	0	1	1
	Outside Fire	18	14	18
	Structure Fire	35	42	30
	Vehicle Fire	15	7	18
	Hazmat	**32**	**26**	**23**
	Hazmat	32	26	23
	Rescue	**7**	**9**	**8**
	Rescue	7	9	8
	Total	**392**	**384**	**475**
	Average Calls per Day[3]	**1.1**	**1.1**	**1.3**
	YoY Growth	**N/A**	**-2.0%**	**23.7%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 50: Number of Calls by RMS/NFIRS City, CAD Program, CAD Call Type, and Reporting Period – Fire, Hazmat, and Rescue Calls in Outside Jurisdictions

RMS/NFIRS City	CAD Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
Afton	**Fire**	**5**	**0**	**0**
	Structure Fire	5	0	0
	Total	**5**	**0**	**0**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**0.0**
	YoY Growth	**N/A**	**-100.0%**	**N/A**
Burnsville	**Fire**	**0**	**0**	**2**
	Fire Other	0	0	2
	Total	**0**	**0**	**2**
	Average Calls per Day[3]	**0.0**	**0.0**	**< 0.1**
	YoY Growth	**N/A**	**N/A**	**N/A**
Denmark Township	**Fire**	**0**	**3**	**4**
	Brush Fire	0	0	1
	Mutual Aid	0	2	0
	Structure Fire	0	1	3
	Total	**0**	**3**	**4**
	Average Calls per Day[3]	**0.0**	**< 0.1**	**< 0.1**
	YoY Growth	**N/A**	**N/A**	**33.3%**
Hastings	**Fire**	**4**	**10**	**18**
	Fire Other	0	0	1
	Mutual Aid	4	10	17
	Total	**4**	**10**	**18**
	Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
	YoY Growth	**N/A**	**150.0%**	**80.0%**
Inver Grove Heights	**Fire**	**1**	**1**	**0**
	Mutual Aid	1	1	0
	Total	**1**	**1**	**0**
	Average Calls per Day[3]	**< 0.1**	**< 0.1**	**0.0**
	YoY Growth	**N/A**	**0.0%**	**-100.0%**
Maplewood	**Fire**	**0**	**0**	**1**
	Mutual Aid	0	0	1
	Total	**0**	**0**	**1**
	Average Calls per Day[3]	**0.0**	**0.0**	**< 0.1**
	YoY Growth	**N/A**	**N/A**	**N/A**

RMS/NFIRS City	CAD Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
Newport	**Fire**	**8**	**5**	**6**
	Brush Fire	0	1	0
	Fire Alarm	0	1	0
	Fire Other	3	1	1
	Structure Fire	5	2	4
	Vehicle Fire	0	0	1
	Hazmat	**0**	**0**	**1**
	Hazmat	0	0	1
	Rescue	**1**	**1**	**3**
	Rescue	1	1	3
	Total	**9**	**6**	**10**
	Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
	YoY Growth	**N/A**	**-33.3%**	**66.7%**
Nininger Township	**Fire**	**1**	**0**	**0**
	Mutual Aid	1	0	0
	Total	**1**	**0**	**0**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**0.0**
	YoY Growth	**N/A**	**-100.0%**	**N/A**
Oak Park Heights	**Rescue**	**0**	**1**	**0**
	Rescue	0	1	0
	Total	**0**	**1**	**0**
	Average Calls per Day[3]	**0.0**	**< 0.1**	**0.0**
	YoY Growth	**N/A**	**N/A**	**-100.0%**
Ravenna Township	**Fire**	**1**	**0**	**0**
	Mutual Aid	1	0	0
	Total	**1**	**0**	**0**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**0.0**
	YoY Growth	**N/A**	**-100.0%**	**N/A**
Saint Paul Park	**Fire**	**8**	**4**	**6**
	Fire Alarm	1	0	0
	Fire Other	1	3	1
	Hazardous Condition	1	0	0
	Mutual Aid	1	0	0
	Structure Fire	4	1	5
	Rescue	**3**	**0**	**1**
	Rescue	3	0	1
	Total	**11**	**4**	**7**
	Average Calls per Day[3]	**< 0.1**	**< 0.1**	**< 0.1**
	YoY Growth	**N/A**	**-63.6%**	**75.0%**

RMS/NFIRS City	CAD Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
Township of Grey Cloud Island	**Fire**	**1**	**0**	**0**
	Structure Fire	1	0	0
	Rescue	**2**	**0**	**0**
	Rescue	2	0	0
	Total	**3**	**0**	**0**
	Average Calls per Day[3]	**< 0.1**	**0.0**	**0.0**
	YoY Growth	**N/A**	**-100.0%**	**N/A**
Woodbury	**Fire**	**23**	**59**	**61**
	Brush Fire	0	2	0
	Fire Alarm	3	16	21
	Fire Other	1	5	1
	Hazardous Condition	0	13	12
	Outside Fire	1	1	0
	Structure Fire	18	21	25
	Vehicle Fire	0	1	2
	Hazmat	**2**	**6**	**4**
	Hazmat	2	6	4
	Rescue	**0**	**2**	**2**
	Rescue	0	2	2
	Total	**25**	**67**	**67**
	Average Calls per Day[3]	**0.1**	**0.2**	**0.2**
	YoY Growth	**N/A**	**168.0%**	**0.0%**
All	**Fire**	**52**	**82**	**98**
	Brush Fire	0	3	1
	Fire Alarm	4	17	21
	Fire Other	5	9	6
	Hazardous Condition	1	13	12
	Mutual Aid	8	13	18
	Outside Fire	1	1	0
	Structure Fire	33	25	37
	Vehicle Fire	0	1	3
	Hazmat	**2**	**6**	**5**
	Hazmat	2	6	5
	Rescue	**6**	**4**	**6**
	Rescue	6	4	6
	Total	**60**	**92**	**109**
	Average Calls per Day[3]	**0.2**	**0.3**	**0.3**
	YoY Growth	**N/A**	**53.3%**	**18.5%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 51: Number of Calls by RMS/NFIRS Program, RMS/NFIRS Call Type, and Reporting Period – All Jurisdictions

RMS/NFIRS Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
EMS	**3,497**	**3,364**	**3,490**
EMS	3,389	3,242	3,363
MVA	108	122	127
Fire	**952**	**1,173**	**1,390**
False Alarm & False Call	129	135	145
Good Intent Call	698	897	1,069
Hazardous Condition	16	19	38
Mutual Aid	21	33	39
Natural Vegetation Fire	13	4	5
Outside Rubbish Fire	6	7	5
Overpressure Rupture, Explosion, Overheat	0	2	0
Service Call	30	32	36
Severe Weather & Natural Disaster	0	5	3
Special Outside Fire	1	2	3
Structure Fire	27	31	36
Vehicle Fire	11	6	11
Hazmat	**62**	**62**	**49**
Hazmat	62	62	49
Rescue	**5**	**4**	**1**
Rescue	5	4	1
Total	**4,516**	**4,603**	**4,930**
Average Calls per Day[3]	**12.4**	**12.6**	**13.5**
YoY Growth	**N/A**	**1.9%**	**7.1%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 52: Number of Calls by ePCR/NEMSIS Call Type, ePCR/NEMSIS Complaint, and Reporting Period – All Jurisdictions

ePCR/NEMSIS Call Type and Complaint[2]	Reporting Period[1] 2022	2023	2024
Breathing Problem	**487**	**407**	**351**
Breathing Problem	466	392	321
Choking	21	15	30
Cardiac and Stroke	**526**	**444**	**442**
Cardiac Arrest/Death	83	64	75
Chest Pain (Non-Traumatic)	139	122	129
Heart Problems/AICD	190	144	151
Stroke/CVA	101	107	78
Z-Cardiac Arrest - Possible DOA	13	7	9
Fall and Injury	**817**	**812**	**841**
Animal Bite	3	4	10
Assault/Battery/Abuse Victim	26	17	28
Burns/Explosion	2	5	2
Electrocution/Lightning	0	0	1
Eye Problem/Injury	6	2	5
Fall	635	650	643
GI Bleed	1	0	0
Hemorrhage/Laceration	1	0	1
Pediatric - Trauma, Fall, MVA, GSW, Other.	1	0	2
Stab/Gunshot Wound/Penetrating Trauma	0	0	2
Traumatic Injury	63	61	48
Z-Bleeding	79	72	95
Z-Gunshot	0	1	3
Z-Stabbing	0	0	1
Fire-Related	**15**	**2**	**3**
Fire	1	1	0
Z-Structure Fire	14	1	3
Illness and Other	**1,419**	**1,436**	**1,446**
Abdominal Pain/Problems	127	145	126
Allergic Reaction/Stings	41	44	32
Back Pain (Non-Traumatic)	55	51	66
Carbon Monoxide/Hazmat/Inhalation/CBRN	8	6	10
Diabetic Problem	63	63	76
Dizziness	1	1	0
Headache	20	20	17
Healthcare Professional/Admission	1	0	0
Heat/Cold Exposure	5	5	1

ePCR/NEMSIS Call Type and Complaint[2]	Reporting Period[1] 2022	2023	2024
Medical Alarm	66	62	81
No Other Appropriate Choice	16	6	9
Pregnancy/Childbirth/Miscarriage	10	10	7
Sick Person	586	621	645
Standby	1	3	0
Unknown Problem/Person Down	135	129	115
Well Person Check	1	2	5
Z-Assist Other Agency	279	263	255
Z-Assist Police with a Citizen	4	5	1
MVA	**175**	**160**	**170**
Automated Crash Notification	0	6	7
Motor Vehicle Crash	76	84	86
Traffic/Transportation Incident	21	9	6
Z-Auto vs. Pedestrian	78	61	71
Overdose and Psychiatric	**273**	**301**	**305**
Alcohol/Substance Abuse/Withdrawal	3	1	1
Overdose/Poisoning/Ingestion	41	32	43
Psychiatric Problem/Abnormal Behavior/Suicide Attempt	229	268	261
Rescue-Related	**2**	**1**	**4**
Drowning/Diving/SCUBA Accident	0	0	1
Industrial Accident/Inaccessible Incident/Other Entrapments (Non-Vehicle)	1	1	1
Z-Water Rescue	1	0	2
Seizure and Unconsciousness	**270**	**243**	**256**
Convulsions/Seizure	131	96	113
Pediatric - Seizure	1	0	0
Syncope/near-fainting	0	1	1
Unconscious/Fainting/Near-Fainting	138	145	142
Unresponsive	0	1	0
Not Applicable or Not Reported	**532**	**797**	**1,112**
Not Applicable or Not Reported	532	797	1,112
Total	**4,516**	**4,603**	**4,930**
Average Calls per Day[3]	**12.4**	**12.6**	**13.5**
YoY Growth	**N/A**	**1.9%**	**7.1%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix. Complaint values are presented verbatim from the data file.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Response Volume and Busy Time

From the reporting periods of 2022 to 2024, the total number of responses to calls made by units assigned to CGFD across all jurisdictions decreased slightly from 5,318 (average 14.6 responses per day) to 5,271 (average 14.4 responses per day; Table 53). Total busy hours also decreased slightly from 3,390.2 hours in 2022 to 3,325.8 hours in 2024. Average number of responses per call across the three reporting periods has remained fairly consistent at 1.1 to 1.2. Average busy minutes per response decreased from 38.3 in 2022 to 37.9 in 2024. These same metrics are also reported by RMS/NFIRS jurisdiction and reporting period in Table 53. Table 54 expands upon response volume and busy time metrics for calls and responses specifically within CGFD's jurisdiction.

Table 53: Number of Calls, Number of Responses, and Total Busy Time by RMS/NFIRS Jurisdiction and Reporting Period – CGFD Units

RMS/NFIRS Jurisdiction	Reporting Period[1]	Number of Calls[2]	Number of Responses[3]	Average Responses per Call	Total Busy Hours	Responses with Time Data[4]	Average Busy Minutes per Response	Average Calls per Day[5]	Average Responses per Day[5]
All	2022	4,492	5,318	1.2	3,390.2	5,312	38.3	12.3	14.6
	2023	4,384	5,092	1.2	3,153.9	5,092	37.2	12.0	14.0
	2024	4,607	5,271	1.1	3,325.8	5,271	37.9	12.6	14.4
Within CGFD[6]	2022	3,891	4,661	1.2	2,964.2	4,659	38.2	10.7	12.8
	2023	3,839	4,509	1.2	2,894.5	4,509	38.5	10.5	12.4
	2024	3,899	4,508	1.2	2,942.4	4,508	39.2	10.7	12.3
Outside of CGFD	2022	601	657	1.1	426.0	653	39.1	1.6	1.8
	2023	545	583	1.1	259.4	583	26.7	1.5	1.6
	2024	708	763	1.1	383.4	763	30.2	1.9	2.1

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective reporting period.
[2]"Number of Calls" reflects an adjusted number of calls to align with responses made by valid units assigned to CGFD.
[3]"Number of Responses" reflects the total number of records in the data file associated with responses made by valid units assigned to CGFD, regardless of calculated busy time.
[4]"Responses with Time Data" reflects the number of records in the data file associated with responses made by valid units assigned to CGFD with calculated busy time not otherwise excluded.
[5]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.
[6]"Within CGFD" includes the RMS/NFIRS city values of Cottage Grove, Newport, Saint Paul Park, and Township of Grey Cloud Island for EMS calls, and the RMS/NFIRS city value of Cottage Grove for fire, hazmat, and rescue calls.

Table 54: Number of Calls, Number of Responses, and Total Busy Time by Reporting Period, CAD Program, and RMS/NFIRS City – CGFD Units in CGFD's Jurisdiction

Reporting Period[1]	CAD Program and RMS/NFIRS City[2]	Number of Calls[3]	Number of Responses[4]	Average Responses per Call	Total Busy Hours	Responses with Time Data[5]	Average Busy Minutes per Response	Average Calls per Day[6]	Average Responses per Day[6]
2022	**EMS**	**3,499**	**3,909**	**1.1**	**2,645.3**	**3,908**	**40.6**	**9.6**	**10.7**
	Cottage Grove	2,517	2,869	1.1	1,939.4	2,869	40.6	6.9	7.9
	Newport	462	488	1.1	317.8	488	39.1	1.3	1.3
	Saint Paul Park	485	513	1.1	353.2	512	41.4	1.3	1.4
	Township of Grey Cloud Island	35	39	1.1	34.8	39	53.6	0.1	0.1
	Fire	**353**	**679**	**1.9**	**286.3**	**678**	**25.3**	**1.0**	**1.9**
	Hazmat	**32**	**64**	**2.0**	**30.0**	**64**	**28.1**	**0.1**	**0.2**
	Rescue	**7**	**9**	**1.3**	**2.6**	**9**	**17.1**	**< 0.1**	**< 0.1**
	Total Cottage Grove	**2,909**	**3,621**	**1.2**	**2,258.3**	**3,620**	**37.4**	**8.0**	**9.9**
	Total All	**3,891**	**4,661**	**1.2**	**2,964.2**	**4,659**	**38.2**	**10.7**	**12.8**
2023	**EMS**	**3,460**	**3,815**	**1.1**	**2,593.1**	**3,815**	**40.8**	**9.5**	**10.5**
	Cottage Grove	2,513	2,817	1.1	1,903.6	2,817	40.5	6.9	7.7
	Newport	467	491	1.1	322.9	491	39.5	1.3	1.3
	Saint Paul Park	450	470	1.0	333.8	470	42.6	1.2	1.3
	Township of Grey Cloud Island	30	37	1.2	32.8	37	53.1	0.1	0.1
	Fire	**344**	**632**	**1.8**	**277.7**	**632**	**26.4**	**0.9**	**1.7**
	Hazmat	**26**	**49**	**1.9**	**17.5**	**49**	**21.4**	**0.1**	**0.1**
	Rescue	**9**	**13**	**1.4**	**6.2**	**13**	**28.4**	**< 0.1**	**< 0.1**
	Total Cottage Grove	**2,892**	**3,511**	**1.2**	**2,205.0**	**3,511**	**37.7**	**7.9**	**9.6**
	Total All	**3,839**	**4,509**	**1.2**	**2,894.5**	**4,509**	**38.5**	**10.5**	**12.4**

Reporting Period[1]	CAD Program and RMS/NFIRS City[2]	Number of Calls[3]	Number of Responses[4]	Average Responses per Call	Total Busy Hours	Responses with Time Data[5]	Average Busy Minutes per Response	Average Calls per Day[6]	Average Responses per Day[6]
2024	**EMS**	**3,435**	**3,796**	**1.1**	**2,645.9**	**3,796**	**41.8**	**9.4**	**10.4**
	Cottage Grove	2,503	2,797	1.1	1,941.5	2,797	41.6	6.8	7.6
	Newport	460	495	1.1	327.9	495	39.8	1.3	1.4
	Saint Paul Park	417	446	1.1	338.5	446	45.5	1.1	1.2
	Township of Grey Cloud Island	55	58	1.1	38.0	58	39.3	0.2	0.2
	Fire	**434**	**662**	**1.5**	**279.5**	**662**	**25.3**	**1.2**	**1.8**
	Hazmat	**23**	**38**	**1.7**	**14.9**	**38**	**23.5**	**0.1**	**0.1**
	Rescue	**7**	**12**	**1.7**	**2.2**	**12**	**10.9**	**< 0.1**	**< 0.1**
	Total Cottage Grove	**2,967**	**3,509**	**1.2**	**2,238.0**	**3,509**	**38.3**	**8.1**	**9.6**
	Total All	**3,899**	**4,508**	**1.2**	**2,942.4**	**4,508**	**39.2**	**10.7**	**12.3**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective reporting period.
[2]Metrics by RMS/NFIRS city are reported individually for EMS calls only, as CGFD units are first due to all fire, hazmat, and rescue calls in the RMS/NFIRS city value of Cottage Grove only.
[3]"Number of Calls" reflects an adjusted number of calls to align with responses made by valid units assigned to CGFD.
[4]"Number of Responses" reflects the total number of records in the data file associated with responses made by valid units assigned to CGFD, regardless of calculated busy time.
[5]"Responses with Time Data" reflects the number of records in the data file associated with responses made by valid units assigned to CGFD with calculated busy time not otherwise excluded.
[6]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Overlapped Calls Analysis

From 2022 through 2024, the percentage of overlapped calls for all jurisdictions ranged from 37.4% to 39.9% (Table 55).

Table 55: Overlapped Calls by RMS/NFIRS Jurisdiction and Reporting Period

RMS/NFIRS Jurisdiction	Reporting Period[1]	Overlapped Calls	Total Calls	Percentage of Overlapped Calls
All	2022	1,687	4,516	37.4
	2023	1,771	4,603	38.5
	2024	1,966	4,930	39.9
Within CGFD	2022	1,199	3,915	30.6
	2023	1,359	4,039	33.6
	2024	1,436	4,212	34.1

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective reporting period.

APPENDIX

Audit, Exclusions, and Classifications

This section reflects the audit, exclusion, and classification activities performed on the data files provided by CGFD spanning January 1, 2022 through December 31, 2024. Based on the date range of data provided, three full calendar years of data (i.e., 2022 through 2024) were available for select baseline analyses. The comprehensive data report (i.e., all sections prior to the baseline section) reflects data from the 2024 calendar year spanning January 1, 2024 through December 31, 2024.

CGFD provided one 2022-2024 RMS/NFIRS data file (*n*=30,803 records), one 2022-2024 CAD data file (*n*=38,824 records representing 17,285 unique case numbers), one 2022-2023 ePCR/NEMSIS data file (*n*=8,803), and one 2024 ePCR/NEMSIS data file (*n*=4,443; combined 2022-2024, *n*=13,246). The 2022-2024 RMS/NFIRS data file was used as the "parent" data file, as this file contained unit-specific date and time stamps representing individual unit response activities (e.g., unit dispatch, en route, arrival, and clear dates and times). Call-level details from the CAD data file were mapped to records in the RMS/NFIRS data file through use of the case numbers. Additional EMS-related details from the ePCR/NEMSIS data files were mapped to records in the RMS/NFIRS data file through use of the incident numbers plus the unit IDs.

Prior to call volume and temporal analyses, records were examined for full duplication (i.e., records that matched on values for all variables), but no fully duplicated records were identified. No exclusions were required prior to call volume and temporal analyses, as there were no incident types identified as non-valid values (e.g., test calls). For temporal analyses, year, month, day of week, and hour of day were based on the date and time stamp values for the "Time Phone Pick Up" variable from the CAD data file.

Prior to response volume and busy time analyses, records missing a unit ID (*n*=14,049), and records reporting a unit ID that was considered to not represent a valid responding unit (*n*=1,073) were excluded (Table 56). Records were also examined for duplicate unit responses (i.e., records that matched on incident number, responding unit ID, and responding unit dispatch date and time stamp), but no duplicate unit responses were identified.

Busy time (i.e., time on task, as measured from unit dispatch or next available date and time, to unit clear or last available date and time) was then calculated for all remaining records in the data file (refer back to Figure 16 for visual representation). Records were examined for negative busy times, busy times of zero minutes, and busy times > 24 hours (i.e., considered to be extreme outliers), and these values were excluded from analyses, as applicable.

Table 56: Exclusions from Data File Prior to Response Volume and Busy Time Analyses – 2022-2024

Exclusion Activity[1]	Frequency (*n*)	Percent of Total (%)
Number of Records in Data Set	**30,803**	--
Unit ID Missing	14,049	45.6
Unit ID Considered to Not Be Valid Responding Unit = CGCHIEF	1,071	3.5
Unit ID Considered to Not Be Valid Responding Unit = CGUTV1	2	< 0.1
Duplicate Unit Response Record[2]	0	0.0
Number of Records Excluded	**15,122**	**49.1**
Number of Records Remaining in Data Set	**15,681**	**50.9**
Unit Dispatch Date and Time to Unit Clear Date and Time (Unit Busy Time) < 0 Minutes	0	0.0
Unit Clear Date and Time = Unit Dispatch Date and Time (Unit Busy Time = 0 Minutes)	0	0.0
Unit Dispatch Date and Time to Unit Clear Date and Time (Unit Busy Time) > 24 Hours[3]	6	< 0.1
Number of Individual Time Values Missing or Excluded	**6**	**< 0.1**

[1]Exclusion activities were sequential, such that frequency data are additive.
[2]Records would be considered to represent duplicate unit response records if they matched on incident number, responding unit ID, and responding unit dispatch date and time stamp.
[3]Retained records to reflect response workload, but excluded busy times from all related analyses.

Records in the data file were further examined following the calculation of performance time metrics. Calculated times with negative or zero values were excluded from all related analyses, and calculated times considered to be outliers were also excluded from all related analyses (Table 57).

Table 57: Exclusions from Data File for Performance Time Analyses – 2022-2024

Exclusion Activity[1]	Frequency (*n*)	Percent of Total (%)
Number of Records in Data Set	**15,681**	--
Call Received Date and Time to Unit Dispatch Date and Time (Unit Dispatch Time) < 0 Minutes[2]	100	0.6
Unit Dispatch Date and Time = Call Received Date and Time (Unit Dispatch Time = 0 Minutes)	0	0.0
Call Received Date and Time to Unit Dispatch Date and Time (Unit Dispatch Time) > 30 Minutes[2]	317	2.0
Unit Dispatch Date and Time to Unit Enroute Date and Time (Unit Turnout Time) < 0 Minutes[3]	2	< 0.1
Unit Enroute Date and Time = Unit Dispatch Date and Time (Unit Turnout Time = 0 Minutes)[4]	8,241	52.6
Unit Dispatch Date and Time to Unit Enroute Date and Time (Unit Turnout Time) > 30 Minutes[3]	60	0.4
Unit Enroute Date and Time to Unit Arrival Date and Time (Unit Travel Time) < 0 Minutes[5]	9	0.1
Unit Arrival Date and Time = Unit Enroute Date and Time (Unit Travel Time = 0 Minutes)[5]	177	1.1
Unit Enroute Date and Time to Unit Arrival Date and Time (Unit Travel Time) > 60 Minutes[5]	12	0.1
Call Received Date and Time to Unit Arrival Date and Time (Unit Response Time) > 60 Minutes[6]	4	< 0.1
Number of Individual Time Values Excluded[7]	**8,922**	--

[1]Exclusion activities were sequential, such that frequency data are additive.
[2]Retained records to reflect response workload, but excluded dispatch times and corresponding response times from all related analyses.
[3]Retained records to reflect response workload, but excluded turnout times and corresponding response times from all related analyses.
[4]Retained records to reflect response workload, but excluded turnout times from all related analyses. Due to the large portion of records with a calculated turnout time of zero minutes, corresponding response times were not excluded.
[5]Retained records to reflect response workload, but excluded travel times and corresponding response times from all related analyses.
[6]Retained records to reflect response workload, but excluded response times from all related analyses.
[7]Plus additional exclusion of corresponding response times, where applicable.

Table 58: Classification of Problem into Program and Call Type Categories – CAD Data File

Program	Call Type	"Problem" Entry from CAD Data File[1]
EMS	Breathing Problem	yChoking-1
EMS	Breathing Problem	yChoking-3
EMS	Breathing Problem	yDifficulty Breathing
EMS	Cardiac and Stroke	yCardiac/Heart Problems-1
EMS	Cardiac and Stroke	yCardiac/Heart Problems-2
EMS	Cardiac and Stroke	yCardiac/Heart Problems-3
EMS	Cardiac and Stroke	yChest Pain(Non-Cardiac)-1
EMS	Cardiac and Stroke	yChest Pain(Non-Cardiac)-2
EMS	Cardiac and Stroke	yCPR/Full Arrest
EMS	Cardiac and Stroke	yStroke-1
EMS	Cardiac and Stroke	yStroke-2
EMS	Cardiac and Stroke	yStroke-3
EMS	Fall and Injury	yAnimal Bite Injury-1
EMS	Fall and Injury	yAnimal Bite Injury-2
EMS	Fall and Injury	yAnimal Bite Injury-3
EMS	Fall and Injury	yAssault Injury-1
EMS	Fall and Injury	yAssault Injury-2
EMS	Fall and Injury	yAssault Injury-3
EMS	Fall and Injury	yBleeding-1
EMS	Fall and Injury	yBleeding-3
EMS	Fall and Injury	yBurns-1
EMS	Fall and Injury	yBurns-2
EMS	Fall and Injury	yBurns-3
EMS	Fall and Injury	yDomestic Violence Injury-1
EMS	Fall and Injury	yDomestic Violence Injury-2
EMS	Fall and Injury	yDomestic Violence Injury-3
EMS	Fall and Injury	yElectrical Hazard with Injury
EMS	Fall and Injury	yEye Problem/Injury-1
EMS	Fall and Injury	yEye Problem/Injury-3
EMS	Fall and Injury	yFall-1
EMS	Fall and Injury	yFall-2
EMS	Fall and Injury	yFall-3
EMS	Fall and Injury	yMachine/Industrial Accident-1
EMS	Fall and Injury	yShooting with Injuries
EMS	Fall and Injury	yStabbing
EMS	Fall and Injury	yTraumatic Inj/Head Injury-1
EMS	Fall and Injury	yTraumatic Inj/Head Injury-2
EMS	Fall and Injury	yTraumatic Inj/Head Injury-3
EMS	Illness and Other	yAbdominal Pain/Problem-1

Program	Call Type	"Problem" Entry from CAD Data File[1]
EMS	Illness and Other	yAbdominal Pain/Problem-2
EMS	Illness and Other	yAbdominal Pain/Problem-3
EMS	Illness and Other	yAllergic Reaction
EMS	Illness and Other	yBack Pain(Non-Trauma)-1
EMS	Illness and Other	yBack Pain(Non-Trauma)-2
EMS	Illness and Other	yBack Pain(Non-Trauma)-3
EMS	Illness and Other	yChildbirth/Obstetrics-1
EMS	Illness and Other	yChildbirth/Obstetrics-2
EMS	Illness and Other	yCO/Inhalation
EMS	Illness and Other	yDiabetic-1
EMS	Illness and Other	yDiabetic-3
EMS	Illness and Other	yExposure Heat/Cold-1
EMS	Illness and Other	yExposure Heat/Cold-3
EMS	Illness and Other	yHeadache-1
EMS	Illness and Other	yHeadache-2
EMS	Illness and Other	yHeadache-3
EMS	Illness and Other	yLE Incident w/ Medical-1
EMS	Illness and Other	yLE Incident w/ Medical-3
EMS	Illness and Other	yLift Assist-Non Injury
EMS	Illness and Other	yMedical Alarm-1
EMS	Illness and Other	yMedical Alarm-2
EMS	Illness and Other	yPerson In Crisis-1
EMS	Illness and Other	yPerson In Crisis-3
EMS	Illness and Other	yPossible Death
EMS	Illness and Other	yRQ EMS by Public Safety-L1
EMS	Illness and Other	yRQ EMS by Public Safety-L3
EMS	Illness and Other	ySick Person-1
EMS	Illness and Other	ySick Person-3
EMS	Illness and Other	yUnknown Medical Situation-1
EMS	Illness and Other	yUnknown Medical Situation-3
EMS	Mutual Aid	yMutual Aid-EMS Plan (In)
EMS	Mutual Aid	yMutual Aid-EMS Request (Out)
EMS	MVA	yMVA: Hit and Run with Injury
EMS	MVA	yMVA: Injury-Entrapment
EMS	MVA	yMVA: Unknown Injury
EMS	MVA	yVehicle Accident Injury
EMS	Overdose and Psychiatric	yAccidental OD/Poisoning-1
EMS	Overdose and Psychiatric	yAccidental OD/Poisoning-2
EMS	Overdose and Psychiatric	ySuicide or Attempted
EMS	Seizure and Unconsciousness	ySeizure-1

Program	Call Type	"Problem" Entry from CAD Data File[1]
EMS	Seizure and Unconsciousness	ySeizure-3
EMS	Seizure and Unconsciousness	yUnconscious Person-1
EMS	Seizure and Unconsciousness	yUnconscious Person-2
EMS	Seizure and Unconsciousness	yUnconscious Person-3
Fire	Brush Fire	yBrush Fire
Fire	Fire Alarm	yFire Alarm
Fire	Fire Alarm	yFire Alarm - Water Flow
Fire	Fire Alarm	yFire Alarm Carbon Monoxide
Fire	Fire Other	yDumpster Fire
Fire	Fire Other	yElectrical Fire
Fire	Fire Other	yFire Initiated Call
Fire	Fire Other	yFire Report
Fire	Fire Other	yFire Unknown
Fire	Fire Other	yRQ Fire by Public Safety
Fire	Hazardous Condition	yElectrical Hazard
Fire	Hazardous Condition	yOdor/Smoke Smell Outside
Fire	Mutual Aid	yMutual Aid-FIRE
Fire	Outside Fire	yFire Outside
Fire	Structure Fire	yChimney Fire
Fire	Structure Fire	yOven Fire Contained to Oven
Fire	Structure Fire	ySmoke in Structure-No Flames
Fire	Structure Fire	yStructure Fire-Flames Seen
Fire	Vehicle Fire	yFire Vehicle
Hazmat	Hazmat	yGas Leak
Hazmat	Hazmat	yHAZMAT
Rescue	Rescue	yDiving/Drowning-1
Rescue	Rescue	yFire Dive
Rescue	Rescue	yFire Rescue Incident
Rescue	Rescue	yFire Rescue Incident-1
Rescue	Rescue	yFire Rescue Incident-3
Rescue	Rescue	yRQ EMS Rescue by PublicSafety
Rescue	Rescue	yWater Emergency

[1]Entries are presented verbatim from the data file.

Table 59: Classification of Incident Type into Program and Call Type Categories – RMS/NFIRS Data File

Program	Call Type	"Basic Incident Type (FD1.21)" Entry from RMS/NFIRS Data File[1]
EMS	EMS	Community Paramedic Services
EMS	EMS	EMS call, excluding vehicle accident with injury
EMS	EMS	Medical assist, assist EMS crew
EMS	MVA	Motor vehicle accident with injuries
EMS	MVA	Motor vehicle accident with no injuries.
EMS	MVA	Motor vehicle/pedestrian accident (MV Ped)
Fire	False Alarm & False Call	Alarm system activation, no fire - unintentional
Fire	False Alarm & False Call	Alarm system sounded due to malfunction
Fire	False Alarm & False Call	Bomb scare - no bomb
Fire	False Alarm & False Call	Carbon monoxide detector activation, no CO
Fire	False Alarm & False Call	CO detector activation due to malfunction
Fire	False Alarm & False Call	Detector activation, no fire - unintentional
Fire	False Alarm & False Call	Extinguishing system activation due to malfunction
Fire	False Alarm & False Call	Malicious, mischievous false call, other
Fire	False Alarm & False Call	Smoke detector activation due to malfunction
Fire	False Alarm & False Call	Smoke detector activation, no fire - unintentional
Fire	False Alarm & False Call	Sprinkler activation due to malfunction
Fire	False Alarm & False Call	Sprinkler activation, no fire - unintentional
Fire	Good Intent Call	Authorized controlled burning
Fire	Good Intent Call	Dispatched and cancelled en route
Fire	Good Intent Call	Good intent call, other
Fire	Good Intent Call	HazMat release investigation w/no HazMat
Fire	Good Intent Call	No incident found on arrival at dispatch address
Fire	Good Intent Call	Prescribed fire
Fire	Good Intent Call	Smoke scare, odor of smoke
Fire	Good Intent Call	Steam, other gas mistaken for smoke, other
Fire	Good Intent Call	Steam, vapor, fog or dust thought to be smoke

Program	Call Type	"Basic Incident Type (FD1.21)" Entry from RMS/NFIRS Data File[1]
Fire	Hazardous Condition	Arcing, shorted electrical equipment
Fire	Hazardous Condition	Breakdown of light ballast
Fire	Hazardous Condition	Building or structure weakened or collapsed
Fire	Hazardous Condition	Heat from short circuit (wiring), defective/worn
Fire	Hazardous Condition	Overheated motor
Fire	Hazardous Condition	Power line down
Fire	Hazardous Condition	Vehicle accident, general cleanup
Fire	Mutual Aid	Cover assignment, standby, moveup
Fire	Natural Vegetation Fire	Brush or brush-and-grass mixture fire
Fire	Natural Vegetation Fire	Forest, woods or wildland fire
Fire	Natural Vegetation Fire	Grass fire
Fire	Natural Vegetation Fire	Natural vegetation fire, other
Fire	Outside Rubbish Fire	Outside rubbish fire, other
Fire	Outside Rubbish Fire	Outside rubbish, trash or waste fire
Fire	Overpressure Rupture, Explosion, Overheat	Excessive heat, scorch burns with no ignition
Fire	Service Call	Animal rescue
Fire	Service Call	Assist police or other governmental agency
Fire	Service Call	Defective elevator, no occupants
Fire	Service Call	Lock-out
Fire	Service Call	Public service
Fire	Service Call	Ring or jewelry removal
Fire	Service Call	Smoke or odor removal
Fire	Service Call	Unauthorized burning
Fire	Service Call	Water or steam leak
Fire	Severe Weather & Natural Disaster	Lightning strike (no fire)
Fire	Special Outside Fire	Outside equipment fire
Fire	Special Outside Fire	Special outside fire, other
Fire	Structure Fire	Building fire

Program	Call Type	"Basic Incident Type (FD1.21)" Entry from RMS/NFIRS Data File[1]
Fire	Structure Fire	Chimney or flue fire, confined to chimney or flue
Fire	Structure Fire	Cooking fire, confined to container
Fire	Structure Fire	Fire in portable building, fixed location
Fire	Structure Fire	Fuel burner/boiler malfunction, fire confined
Fire	Structure Fire	Trash or rubbish fire, contained
Fire	Vehicle Fire	Mobile property (vehicle) fire, other
Fire	Vehicle Fire	Off-road vehicle or heavy equipment fire
Fire	Vehicle Fire	Passenger vehicle fire
Fire	Vehicle Fire	Road freight or transport vehicle fire
Hazmat	Hazmat	Carbon monoxide incident/no patient
Hazmat	Hazmat	Chemical hazard (no spill or leak)
Hazmat	Hazmat	Chemical spill or leak
Hazmat	Hazmat	Gas leak (natural gas or LPG)
Hazmat	Hazmat	Gasoline or other flammable liquid spill
Rescue	Rescue	Extrication of victim(s) from machinery
Rescue	Rescue	Extrication of victim(s) from vehicle
Rescue	Rescue	Removal of victim(s) from stalled elevator
Rescue	Rescue	Swimming/recreational water areas rescue

[1]Entries are presented verbatim from the data file.

Table 60: Classification of Complaint into Call Type Category – ePCR/NEMSIS Data File

Call Type	"Incident Complaint Reported By Dispatch/Dispatch Reason (eDispatch.01)" Entry from ePCR/NEMSIS Data File[1]
Breathing Problem	Breathing Problem
Breathing Problem	Choking
Cardiac and Stroke	Cardiac Arrest/Death
Cardiac and Stroke	Chest Pain (Non-Traumatic)
Cardiac and Stroke	Heart Problems/AICD
Cardiac and Stroke	Stroke/CVA
Cardiac and Stroke	Z-Cardiac Arrest - Possible DOA
Fall and Injury	Animal Bite
Fall and Injury	Assault/Battery/Abuse Victim
Fall and Injury	Burns/Explosion
Fall and Injury	Electrocution/Lightning
Fall and Injury	Eye Problem/Injury
Fall and Injury	Fall
Fall and Injury	GI Bleed
Fall and Injury	Hemorrhage/Laceration
Fall and Injury	Pediatric - Trauma, Fall, MVA, GSW, Other.
Fall and Injury	Stab/Gunshot Wound/Penetrating Trauma
Fall and Injury	Traumatic Injury
Fall and Injury	Z-Bleeding
Fall and Injury	Z-Gunshot
Fall and Injury	Z-Stabbing
Fire-Related	Fire
Fire-Related	Z-Structure Fire
Illness and Other	Abdominal Pain/Problems
Illness and Other	Allergic Reaction/Stings
Illness and Other	Back Pain (Non-Traumatic)
Illness and Other	Carbon Monoxide/Hazmat/Inhalation/CBRN
Illness and Other	Diabetic Problem
Illness and Other	Dizziness
Illness and Other	Headache
Illness and Other	Healthcare Professional/Admission
Illness and Other	Heat/Cold Exposure
Illness and Other	Medical Alarm
Illness and Other	No Other Appropriate Choice
Illness and Other	Pregnancy/Childbirth/Miscarriage
Illness and Other	Sick Person
Illness and Other	Standby
Illness and Other	Unknown Problem/Person Down
Illness and Other	Well Person Check

Call Type	"Incident Complaint Reported By Dispatch/Dispatch Reason (eDispatch.01)" Entry from ePCR/NEMSIS Data File[1]
Illness and Other	Z-Assist Other Agency
Illness and Other	Z-Assist Police with a Citizen
MVA	Automated Crash Notification
MVA	Motor Vehicle Crash
MVA	Traffic/Transportation Incident
MVA	Z-Auto vs. Pedestrian
Overdose and Psychiatric	Alcohol/Substance Abuse/Withdrawal
Overdose and Psychiatric	Overdose/Poisoning/Ingestion
Overdose and Psychiatric	Psychiatric Problem/Abnormal Behavior/Suicide Attempt
Rescue-Related	Drowning/Diving/SCUBA Accident
Rescue-Related	Industrial Accident/Inaccessible Incident/Other Entrapments (Non-Vehicle)
Rescue-Related	Z-Water Rescue
Seizure and Unconsciousness	Convulsions/Seizure
Seizure and Unconsciousness	Pediatric - Seizure
Seizure and Unconsciousness	Syncope/near-fainting
Seizure and Unconsciousness	Unconscious/Fainting/Near-Fainting
Seizure and Unconsciousness	Unresponsive
Not Applicable or Not Reported	(Blank)

[1]Entries are presented verbatim from the data file.

Calculation of 90th Percentile Values

FITCH applies the weighted average method in the calculation of 90th percentile values, also aligning with statistical computing software programs such as SPSS (IBM; Chicago, IL) and Microsoft Excel (e.g., through use of the PERCENTILE.EXC formula), as follows:

$$(n + 1) * p = i + f$$

Where:

Values in the sample data set must be sorted in ascending order from lowest value to highest value, and

p = desired percentile expressed as a proportion (e.g., 90th percentile = 90/100 = 0.9)
i = integer portion of (n + 1) * p
f = fractional portion of (n + 1) * p
n = sample size or number of observations in the data set

Then:

$$\text{Percentile Value} = [(1 - f) * x_i] + [f * x_{i+1}]$$

Where:

x_i = observed value at the i^{th} position in the sorted data set
x_{i+1} = observed value at the i^{th} + 1 position in the sorted data set

When the sample size is < 10, the value for i + 1 exceeds the number of observations available in the sample, as exemplified in Table 61 on the next page, such that 90th percentile values, specifically, cannot be calculated via this method.

Note that Excel will still return a 90th percentile value when n = 9, even though there is no 10th observation in the sample, because the weight apportioned to that non-existent observation would be 0.0. Based on the formula, one can see that Excel simply returns 100% of the 9th observation in the data set as the result—i.e., the maximum value in the data set. SPSS, however, will not return a 90th percentile value when n = 9 due to technical adherence to the weighted average method that there is no 10th observation in the sample when n = 9.

Table 61: Example Scenarios for Weighted Average Formula Components When N = 13 to N = 2, p = 0.9

n	(n+1)*p	i	f	1-f	i+1	Note
13	12.6	12	0.6	0.4	13	
12	11.7	11	0.7	0.3	12	
11	10.8	10	0.8	0.2	11	
10	9.9	9	0.9	0.1	10	
9	9.0	9	0.0	1.0	10	i+1 value exceeds sample size; there is no 10th observation
8	8.1	8	0.1	0.9	9	i+1 value exceeds sample size; there is no 9th observation
7	7.2	7	0.2	0.8	8	i+1 value exceeds sample size; there is no 8th observation
6	6.3	6	0.3	0.7	7	i+1 value exceeds sample size; there is no 7th observation
5	5.4	5	0.4	0.6	6	i+1 value exceeds sample size; there is no 6th observation
4	4.5	4	0.5	0.5	5	i+1 value exceeds sample size; there is no 5th observation
3	3.6	3	0.6	0.4	4	i+1 value exceeds sample size; there is no 4th observation
2	2.7	2	0.7	0.3	3	i+1 value exceeds sample size; there is no 3rd observation

Accordingly, *FITCH* is unable to report 90th percentile values when any sample size is < 10, as they cannot be calculated.

Sufficient sample sizes are critical for producing meaningful metrics, such as measures of central tendency (e.g., means) and measures of position (e.g., percentiles), that may be considered to be reasonable estimates of "typical" performance and, thereby, considered as useful metrics in data-driven decision making and action planning.

FITCH

& ASSOCIATES

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September 2025

DRAFT RISK ASSESSMENT REPORT

COTTAGE GROVE FIRE DEPARTMENT



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METHODOLOGY

We obtained Records Management System/National Fire Incident Reporting System (RMS/NFIRS), Computer-Aided Dispatch (CAD), and Electronic Patient Care Reporting/National Emergency Medical Services Information System (ePCR/NEMSIS) data files from Cottage Grove Fire Department (CGFD) for use in risk-related data analysis and reporting. Records included in the data files spanned January 1, 2022 through December 31, 2024. Based on the date range of data provided, three full calendar years of data (i.e., 2022 through 2024) were available for baseline analysis. In coordination with department leadership, incident type values from the data file were classified into the program areas of EMS, fire, hazmat, and rescue (see Table 22 in the Appendix).

CGFD is considered first due to all calls within the demand zone (i.e., RMS/NFIRS "City" value) of Cottage Grove, but is also considered first due to EMS calls within the demand zones of Newport, Saint Paul Park, and Township of Grey Cloud Island. For the purposes of this report, all four demand zones were included as part of CGFD's jurisdiction (Figure 1).

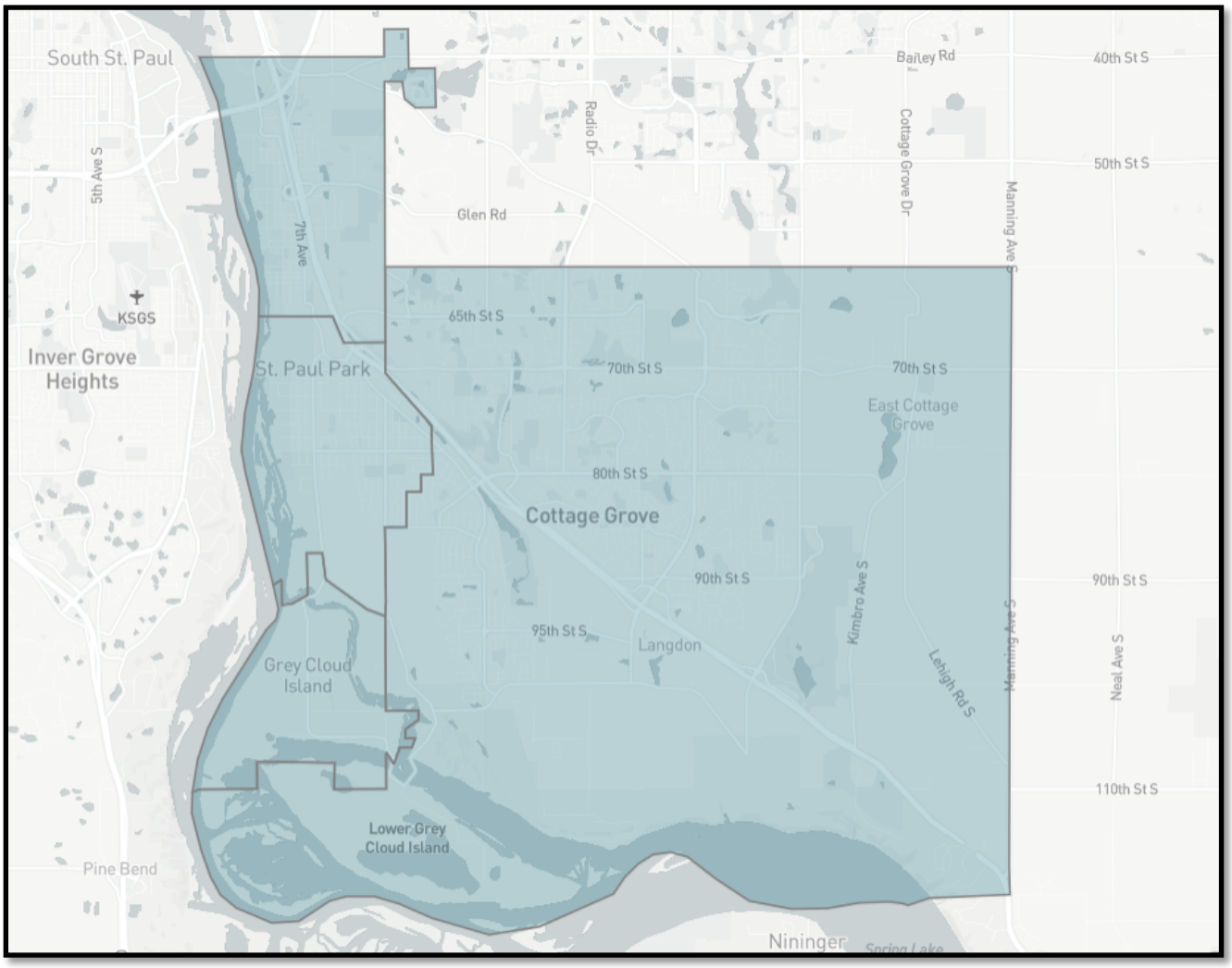
Each demand zone was assigned a risk level based on a score composed of economic- and demographic-related data (i.e., population density, square miles, median age of residents, median household income, unemployment rate, and percentage of homes ≥ 55 years old), and historical service data (i.e., community demand and call concurrency; Table 1). For the demand zones of Newport, Saint Paul Park, and Township of Grey Cloud Island, only EMS-related activity was considered to be within CGFD's jurisdiction for the purposes of historical service assessment.

Data related to economic and demographic assessment variables were exported from mySidewalk (https://www.mysidewalk.com), and represent 2019-2023 data from the U.S. Census Bureau American Community Survey (ACS) 5-year estimates (see for example, https://www.census.gov/programs-surveys/acs).

Table 1: Risk Scoring Variables by Assessment Category

Assessment Category	Variable
Economic and Demographic	Population Density
	Square Miles
	Median Age of Residents
	Median Household Income
	Unemployment Rate
	Percentage of Homes ≥ 55 Years Old
Historical Service	Community Demand
	Call Concurrency

Figure 1: Map of CGFD Jurisdiction[1] – Cottage Grove, Newport, Saint Paul Park, and Township of Grey Cloud Island



[1]CGFD is considered first due to all calls within the demand zone (i.e., RMS/NFIRS "City" value) of Cottage Grove, but is also considered first due to EMS calls within the demand zones of Newport, Saint Paul Park, and Township of Grey Cloud Island.

RISK ASSESSMENT BY DEMAND ZONE (RMS/NFIRS CITY)

Economic and Demographic Assessment

Population Density

The population for each demand zone was calculated using total population for 2019-2023 from U.S. Census Bureau data, and the area of each demand zone in square miles available through mySidewalk. As such, population density was calculated as the number of people per square mile in each demand zone, and was scored based on the scale presented in Table 2.

Table 2: Risk Scoring – Population Density (People per Square Mile)

	Range	
Value	Minimum	Maximum
1	0	500
2	> 500	1,000
3	> 1,000	1,500
4	> 1,500	2,000
5	> 2,000	2,500
6	> 2,500	3,000
7	> 3,000	3,500
8	> 3,500	4,000
9	> 4,000	4,500
10	> 4,500	N/A

Figure 2: Cottage Grove Population Density by FDZ

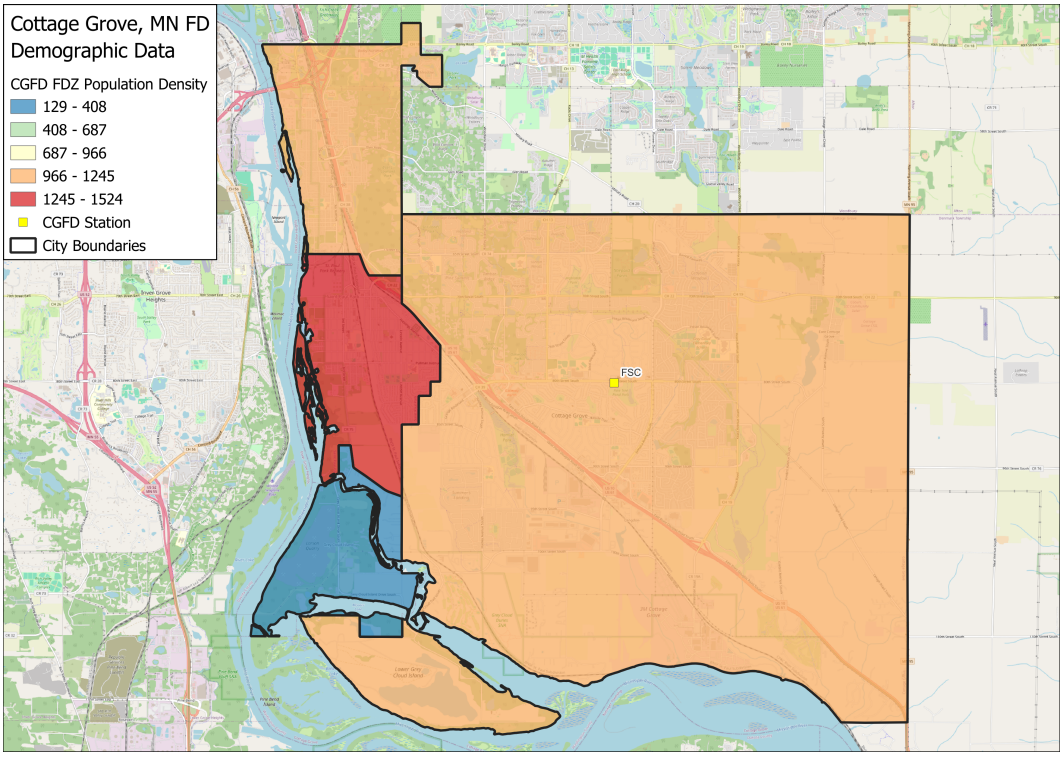


Figure 3: Cottage Grove Population Growth by FDZ

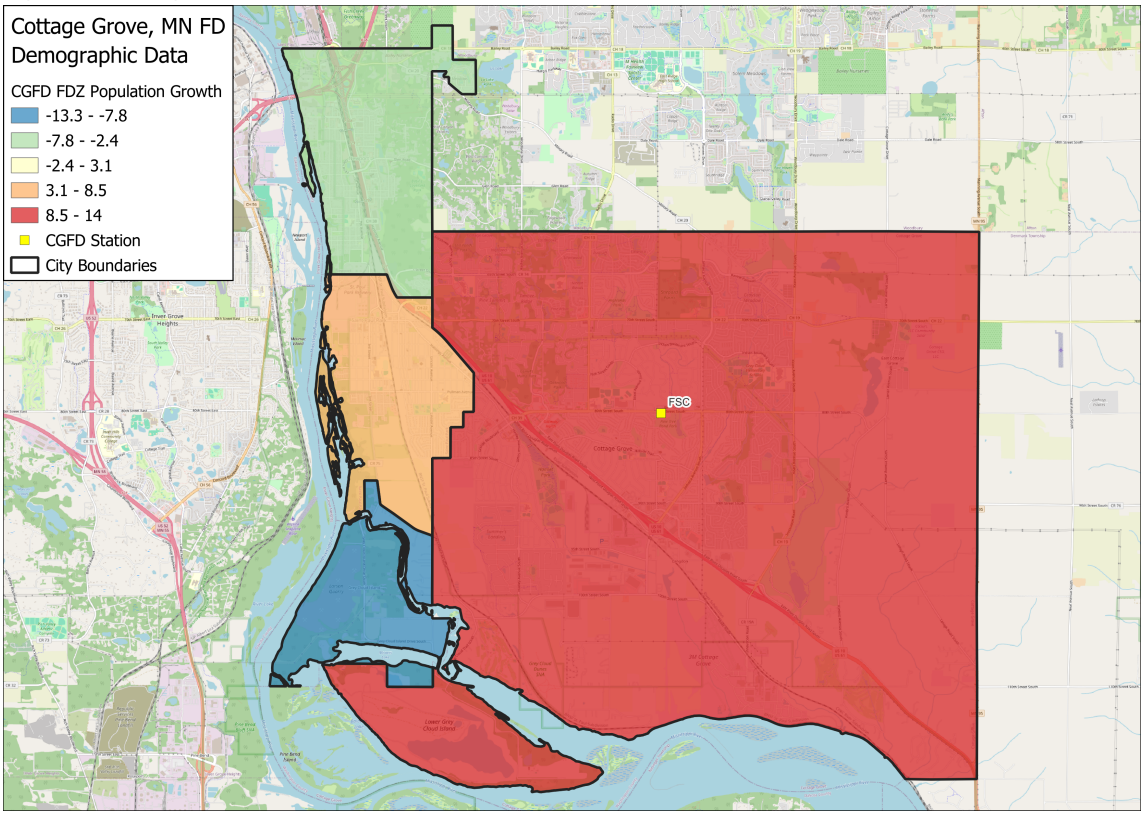
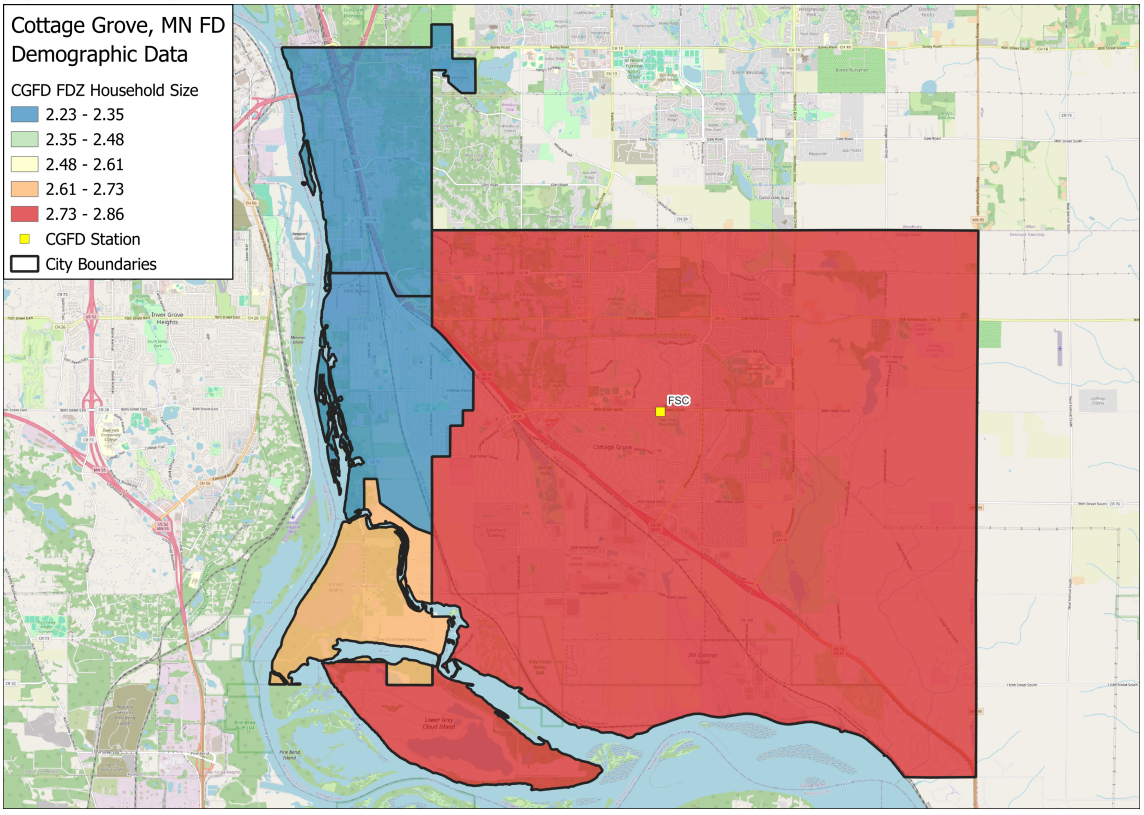


Figure 4: Cottage Grove Household Size by FDZ



Square Miles

Given four current demand zones within the CGFD jurisdiction (i.e., including the three additional EMS demand zones), all else considered equal, the average square miles shared by each demand zone would be 11.91 (i.e., 47.63/4). The approximately 2.4-square-mile range containing this average value was set at the risk scoring value of 5 (Table 3).

Table 3: Risk Scoring – Square Miles

	Range	
Value	Minimum	Maximum
1	0	2.4
2	> 2.4	4.8
3	> 4.8	7.2
4	> 7.2	9.6
5	> 9.6	12.0
6	> 12.0	14.4
7	> 14.4	16.8
8	> 16.8	19.2
9	> 19.2	21.6
10	> 21.6	N/A

Median Age of Residents

Research has demonstrated a relationship between age and use of EMS and fire services or the events leading to the need for EMS and fire services, wherein use and need tend to be highest among older adults, as compared to those in younger age groups. For example, older adults (e.g., 65 years and older) or the elderly (e.g., 85 years and older) have been found to experience higher rates of burns,[1] falls,[2] fires,[3,4] and fire-related injury[5] or death,[6] and have higher rates of ambulance transport[7,8] and use of EMS, in general.[9,10] The elderly are also one of the most vulnerable groups during and following disasters such as hurricanes, tornadoes, and earthquakes.[11]

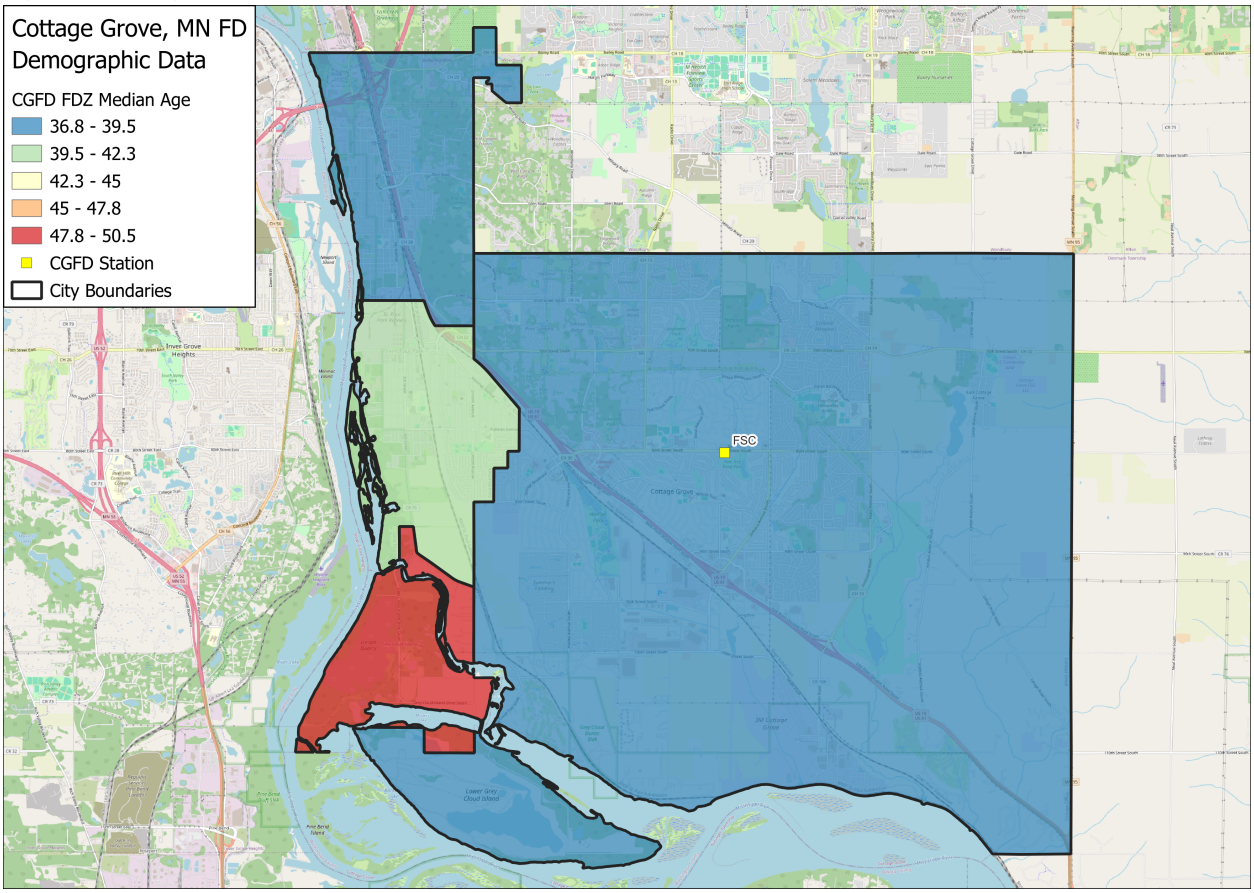
Median age was scored based on the scale presented in Table 4.

Table 4: Risk Scoring – Median Age (Years)

	Range	
Value	Minimum	Maximum
1	0	10
2	> 10	20
3	> 20	30
4	> 30	40
5	> 40	50
6	> 50	60
7	> 60	70
8	> 70	80
9	> 80	90
10	> 90	N/A

[1] Hendrix L, Charles A, Buchholz V, Jones S, & Cairns B. (2011). Influence of race and neighborhood on the risk for and outcomes of burns in the elderly in North Carolina. Burns, 37(5), 761-768. DOI: 10.1016/j.burns.2011.01.015.
[2] Quatman CE, Mondor M, Halweg, Switzer JA. (2018). Ten years of EMS fall calls in a community: An opportunity for injury prevention strategies. Geriatric Orthopaedic Surgery & Rehabilitation, 9, 1-6.
[3] Karter, Jr., MJ. (2013, September). Fire loss in the United States during 2012. National Fire Protection Association Fire Analysis and Research Division. Available: http://tkolb.net/FireReports/2014/FireLoss2012.pdf
[4] Runyan C, Bangdiwala S, Linzer M, Sacks J, & Butts J. (1992). Risk factors for fatal residential fires. New England Journal of Medicine. 327(12). pp. 859–863.
[5] Warda L, Tenenbein M, & Moffat M. (1999). House fire injury prevention update: Part I. A review of risk factors for fatal and non-fatal house fire injury. Injury Prevention, 5(2), pp. 145–150.
[6] Ahrens M. (2021, December). Home fire victims by age and gender. National Fire Protection Association. Available: https://www.nfpa.org//-/media/Files/News-and-Research/Fire-statistics-and-reports/Building-and-life-safety/oshomevictims.pdf
[7] Meisel ZF, Pines JM, Polsky DP, Metlay JP, Neuman MD, & Branas CC. (2011). Variations in ambulance use in the United States: The role of health insurance. Academic Emergency Medicine, 18(1), 1036-1044.
[8] Platts-Mills TF, Leacock B, Cabañas JG, Shofer FS, & McLean SA. (2010). Emergency medical services use by the elderly: Analysis of a statewide database. Prehospital Emergency Care, 14, 329-333.
[9] Shah MN, Bazarian JJ, Lerner B, Fairbanks RJ, Barker WH, Auinher P, & Friedman B. (2007). The epidemiology of emergency medical services use by older adults: An analysis of the National Hospital Ambulatory Medical Care Survey. Academic Emergency Medicine, 14, 441-448. DOI: 10.1197/j.aem.2007.01.019.
[10] Duong HV, Herrera LN, Moore JX, Donnelly J, Jacobson KE, Carlson JN, Mann NC, & Wag HE. (2018). National characteristics of emergency medical services responses for older adults in the United States. Prehospital Emergency Care, 22(1), 7-14. DOI: 10.1080/10903127.2017.1347223.
[11] Flanagan BE, Gregory EW, Hallisey EJ, Heitgerd JL, & Lewis B. (2011). A social vulnerability index for disaster management. Journal of Homeland Security and Emergency Management: Vol. 8: Iss. 1, Article 3. DOI: 10.2202/1547-7355.1792. Available: http://www.bepress.com/jhsem/vol8/iss1/3

Figure 5: Cottage Grove Median Age by FDZ



Median Household Income

Research has demonstrated a relationship between household income and use of EMS and fire services or the events leading to the need for EMS and fire services, such as major trauma, fire events, or disasters. For example, researchers have found that lower-income communities as compared to higher-income communities experience higher rates of intentional injuries and traumatic deaths,[12] unintentional injuries and related deaths (e.g., drowning, exposure to smoke or fire, falls, motor vehicle collisions, and unintentional poisoning),[13] fires,[14,15] and fire-related injuries.[16] Additionally, lower-income families are less likely to have access to private transportation such that their use of transport services is higher, as compared to higher-income families.[17,18] Lower-income communities are also less likely to have the financial resources necessary to prepare for, and to recover from, disasters such as hurricanes, tornadoes, and earthquakes.[19]

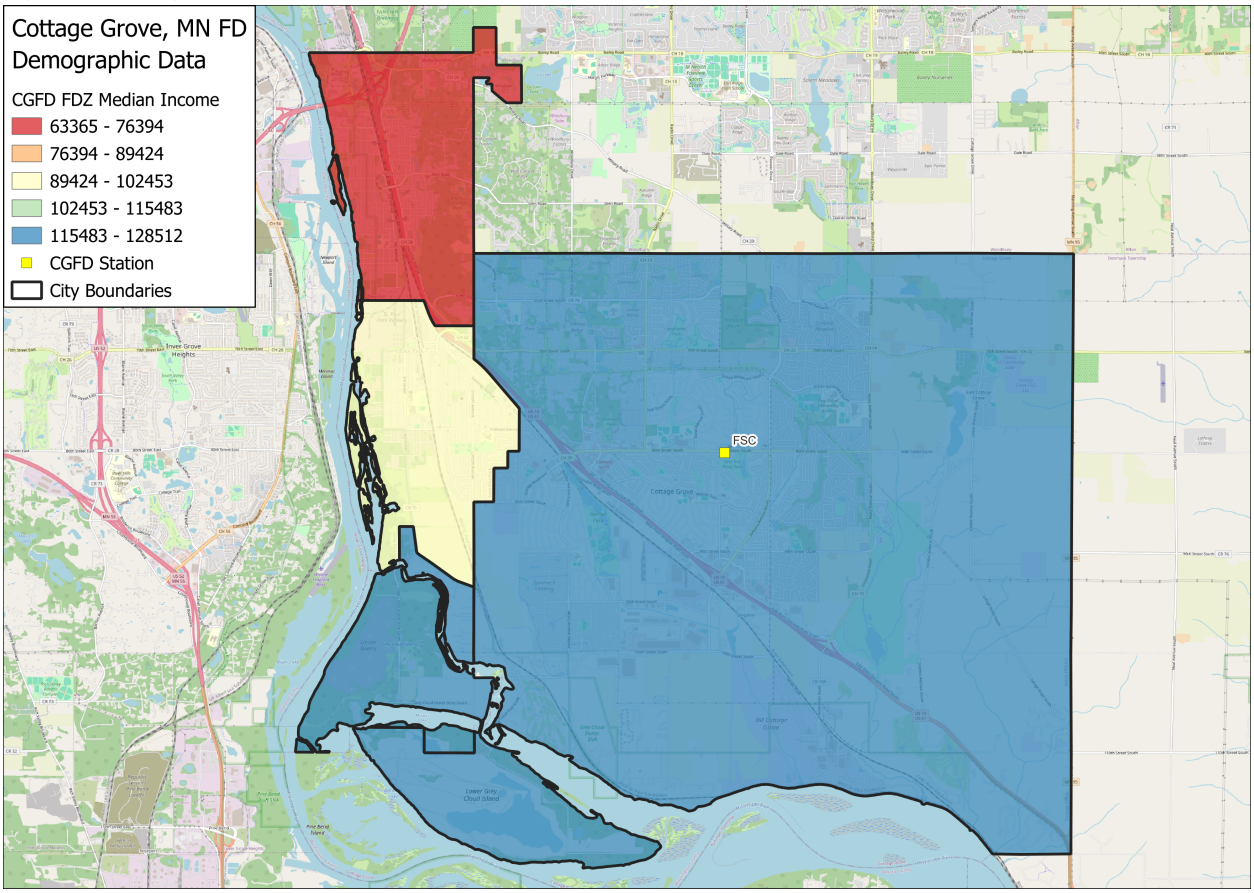
Based on U.S. Census Bureau data for 2019-2023, adjusted for 2023 dollars, median household income for the CGFD jurisdiction, including the three additional EMS demand zones, was $113,718.95. The approximately $10,000 range containing this value was set at the risk scoring value of 5 (Table 5).

Table 5: Risk Scoring – Median Household Income

	Range	
Value	**Minimum**	**Maximum**
1	> $150,000	N/A
2	> $140,000	$150,000
3	> $130,000	$140,000
4	> $120,000	$130,000
5	> $110,000	$120,000
6	> $100,000	$110,000
7	> $90,000	$100,000
8	> $80,000	$90,000
9	> $70,000	$80,000
10	$0	$70,000

[12] Newgard CD, Schmicker RH, Sopko G, et al. (2011). Trauma in the neighborhood: A geospatial analysis and assessment of social determinants of major injury in North America. American Journal of Public Health, 101, 669-677. DOI: 10.2105/AJPH.2010.300063.
[13] Karb RA, Subramanian SV, Fleegler EW. (2016) County poverty concentration and disparities in unintentional injury deaths: A fourteen-year analysis of 1.6 million U.S. fatalities. PLoS ONE 11 (5): e0153516. DOI: 10.1371/journal.pone.0153516.
[14] Karter, Jr., MJ. (2013, September). Fire loss in the United States during 2012. National Fire Protection Association Fire Analysis and Research Division. Available: http://tkolb.net/FireReports/2014/FireLoss2012.pdf
[15] Fahy R, & Maheshwari R. (2021, July). Poverty and the risk of fire. National Fire Protection Association. Available: https://www.nfpa.org/~/media/Files/News%20and%20Research/Fire%20statistics%20and%20reports/US%20Fire%20Problem/ospoverty.pdf
[16] Shai D. (2006). Income, housing, and fire injuries: A census tract analysis. Public Health Reports, Vol. 121, No. 2, (March–April 2006): 149-154, DOI: 10.1177/003335490612100208.
[17] Meisel ZF, Pines JM, Polsky DP, Metlay JP, Neuman MD, & Branas CC. (2011). Variations in ambulance use in the United States: The role of health insurance. Academic Emergency Medicine, 18(1), 1036-1044.
[18] Riney LC, Brokamp C, Beck AF, Pomerantz WJ, Schwartz HP, & Florin TA. (2018). Emergency medical services utilization is associated with community deprivation in children. Prehospital Emergency Care, DOI: 10.1080/10903127.2018.1501124.
[19] Flanagan BE, Gregory EW, Hallisey EJ, Heitgerd JL, & Lewis B. (2011). A social vulnerability index for disaster management. Journal of Homeland Security and Emergency Management: Vol. 8: Iss. 1, Article 3. DOI: 10.2202/1547-7355.1792. Available: http://www.bepress.com/jhsem/vol8/iss1/3

Figure 6: Cottage Grove Median Household Income by FDZ



Unemployment Rate

Research has demonstrated a relationship between unemployment rates and events leading to the need for EMS and fire services. For example, as compared to communities with lower rates of unemployment, communities with higher rates of unemployment tend to also have higher rates of severe firearm injuries[20] and other major injury or trauma events,[21,22] and higher rates of overdose and overdose-related deaths.[23]

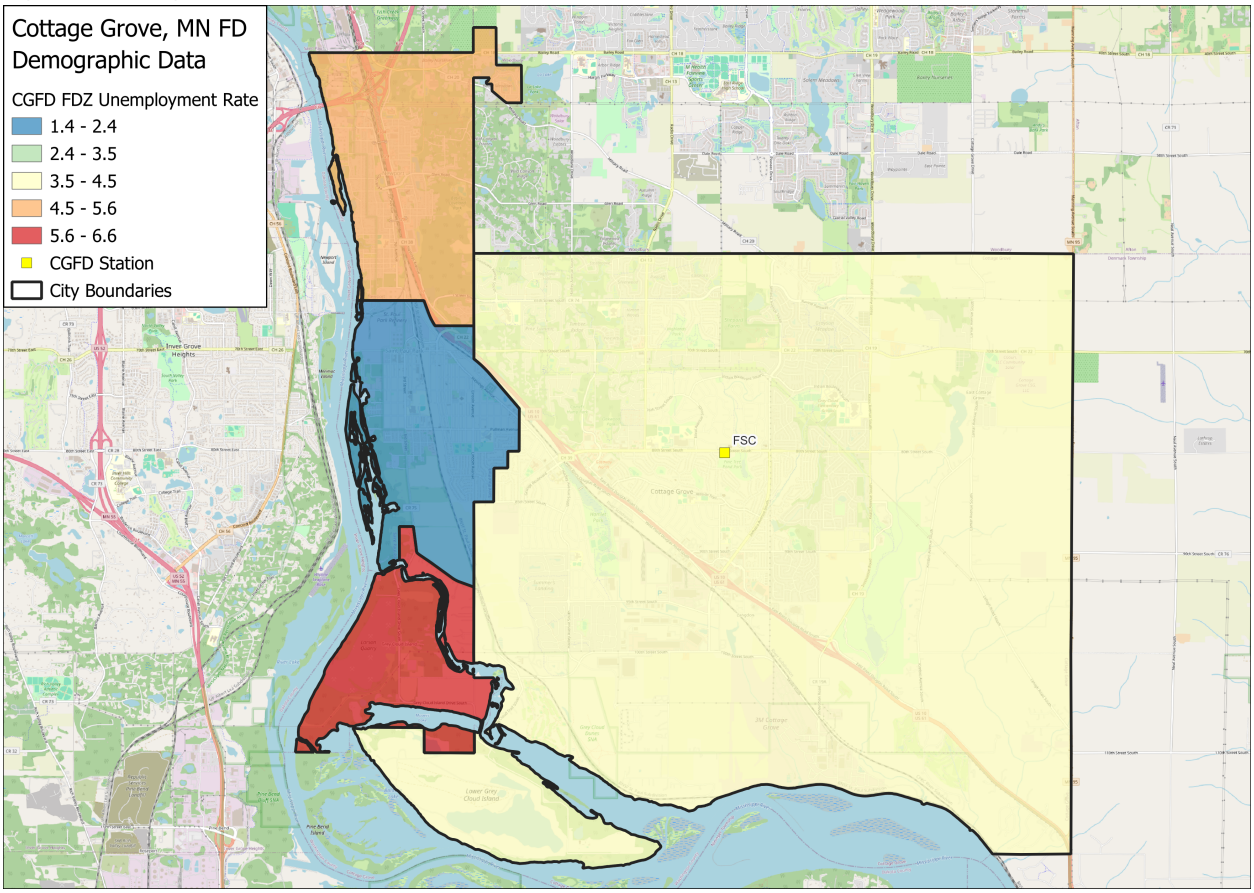
Based on data from the U.S. Census Bureau for 2019-2023, the unemployment rate for the CGFD jurisdiction, including the three additional EMS demand zones, was 3.63%. The approximately 0.75% range containing this value was set at the risk scoring value of 5 (Table 6).

Table 6: Risk Scoring – Unemployment Rate

	Range	
Value	Minimum	Maximum
1	0%	0.75%
2	> 0.75%	1.50%
3	> 1.50%	2.25%
4	> 2.25%	3.00%
5	> 3.00%	3.75%
6	> 3.75%	4.50%
7	> 4.50%	5.25%
8	> 5.25%	6.00%
9	> 6.00%	6.75%
10	> 6.75%	N/A

[20] Newgard CD et al. (2016). A geospatial analysis of severe firearm injuries compared to other injury mechanisms: Event characteristics, location, timing, and outcomes. Academic Emergency Medicine, 23(5), 554-565.
[21] Newgard CD, et al. (2011). Trauma in the neighborhood: A geospatial analysis and assessment of social determinants of major injury in North America. American Journal of Public Health, 101(4), 669-677.
[22] Cook A, Gonzalez JR, & Balasubramanin BA. (2014). Do neighborhood demographics, crime rates, and alcohol outlet density predict incidence, severity, and outcome of hospitalization for traumatic injury? A cross-sectional study of Dallas County, Texas, 2010. Injury Epidemiology, 1:23.
[23] Cerdá M, Krawczyk, Hamilton L, Rudolh KE, Friedman SR, & Keyes KM. (2021). A critical review of the social and behavioral contributions to the overdose epidemic. Annual Review of Public Health, 42, 95-114.

Figure 7: Cottage Grove Unemployment Rate by FDZ



Age of Building Stock

The fire service has long demonstrated a correlation between age of building stock and the incidence of fire due to maintenance and care, dehydration of wood, and other implications such as electrical wiring,[24] wherein older structures tend to experience fire events at higher rates when compared to newer structures.[25] People living in older homes not only experience higher rates of fire-related injuries and death,[26,27,28] but they may also experience relatively higher rates of burns,[29] falls,[30] carbon monoxide poisoning,[31] and lead poisoning.[32,33] Older homes were also constructed based on different standards such that they are often more vulnerable during natural disasters such as hurricanes, tornadoes,[34] and earthquakes.

The percentage of building stock 55 years of age and older was scored in three-percent increments (Table 7).

Table 7: Risk Scoring – Percentage of Housing Units ≥ 55 Years Old

	Range	
Value	Minimum	Maximum
1	0	3%
2	> 3%	6%
3	> 6%	9%
4	> 9%	12%
5	> 12%	15%
6	> 15%	18%
7	> 18%	21%
8	> 21%	24%
9	> 24%	27%
10	> 27%	N/A

[24] Rasdall J. (2005). Aging residential wiring issues: Concerns for fatalities, personal injuries, and loss of property. Education Presentation, Annual Household Equipment Technical Conference General Electric Appliance Park, Louisville, KY; Oct. 26-28, 2005.
[25] TriData Corporation. (1998, April). An NFIRS analysis: Investigating city characteristics and residential fire rates. Federal Emergency Management Agency, United States Fire Administration, National Fire Data Center. Available: https://www.hsdl.org/?abstract&did=10004
[26] Shai D. (2006). Income, housing, and fire injuries: A census tract analysis. Public Health Reports, Vol. 121, No. 2, (March–April 2006): 149-154, DOI: 10.1177/003335490612100208.
[27] Runyan C, Bangdiwala S, Linzer M, Sacks J, and Butts J. (1992). Risk factors for fatal residential fires. New England Journal of Medicine. 327(12). pp. 859–863.
[28] Istre GR, McCoy MA, Osborn L, Barnard JJ, & Bolton A. (2001). Deaths and injuries from house fires. New England Journal of Medicine, 344(25), 1911-1916.
[29] Hendrix L, Charles A, Buchholz V, Jones S, & Cairns B. (2011). Influence of race and neighborhood on the risk for and outcomes of burns in the elderly in North Carolina. Burns, 37(5), 761-768. DOI: 10.1016/j.burns.2011.01.015.
[30] Shenassa ED, Stubbendick A, & Brown MJ. (2004). Social disparities in housing and related pediatric injury: A multilevel study. American Journal of Public Health, 94(4), 633-639.
[31] Sircar K, Clower J, Shin MK, Bailey C, King M, & Yip F. (2015). Carbon monoxide poisoning deaths in the United States, 1999 to 2012. American Journal of Emergency Medicine, 33(9), 1140-1145.
[32] Kim DY, Staley F, Curtis G, & Buchanan S. (2002). Relation between housing age, housing value, and childhood blood lead levels in children in Jefferson County, KY. American Journal of Public Health, 92(5), 769-770.
[33] Farfel MR, Orlova AO, Lees PSJ, Rohde C, Ashley PJ, & Chisolm JJ. (2003). A study of urban housing demolitions as sources of lead in ambient dust: Demolition practices and exterior dust fall. Environmental Health Perspectives, 111(9), 1228-1234.
[34] Paul BK & Stimers M. (2012). Exploring probable reasons for record fatalities: The case of 2011 Joplin, Missouri, Tornado. Natural Hazards, 64, 1511-1526.

Scoring values for census variables were then averaged and assigned a value based on the scale presented in Table 8.

Table 8: Risk Scoring – Average Value for Census Variables

	Range	
Value	Minimum	Maximum
1	1	1.33
2	> 1.33	2.66
3	> 2.66	3.99
4	> 3.99	4.99
5	> 4.99	5.99
6	> 5.99	6.99
7	> 6.99	7.99
8	> 7.99	8.99
9	> 8.99	9.99
10	> 9.99	10

Historical Service Assessment

Community Demand

Community demand was calculated and used as the first historical demand-related variable in the model for each demand zone's risk profile. Scoring was based on the scale presented in Table 9.

Table 9: Risk Scoring – Number of Calls 2022-2024

	Range	
Value	Minimum	Maximum
1	0	449
2	> 449	899
3	> 899	1,349
4	> 1,349	1,799
5	> 1,799	2,249
6	> 2,249	2,699
7	> 2,699	3,149
8	> 3,149	3,599
9	> 3,599	4,049
10	> 4,049	N/A

Call Concurrency

Call concurrency rate (or percentage of calls that overlapped) was calculated and utilized as the second historical demand-related variable in the model for each demand zone's risk profile. Scoring was based on the scale presented in Table 10.

Table 10: Risk Scoring – Call Concurrency Rate 2022-2024

	Range	
Value	Minimum	Maximum
1	0	2.99%
2	> 2.99%	5.99%
3	> 5.99%	8.99%
4	> 8.99%	11.99%
5	> 11.99%	14.99%
6	> 14.99%	17.99%
7	> 17.99%	20.99%
8	> 20.99%	23.99%
9	> 23.99%	26.99%
10	> 26.99%	N/A

Overall Risk Level Scoring Method

Once all demand zones were assigned scores for all three variables—"Community Demand (D)" score, "Call Concurrency (C)" score, and average census score or "Homogenized Risk (R)" score—the values were placed into a formula to yield a final risk score, as follows:

$$\text{square root of } [((C * D)^2 + (C * R)^2 + (D * R)^2)/2]$$

Demand zones were then assigned an overall risk level classification of low, moderate, high, or maximum based on the resulting values of the application of the above formula, in conjunction with the overall scoring scale depicted in the right-hand column in Table 11.

Table 11: Demand Zone Risk Scoring Matrix

Risk Level	Community Demand (D)		Call Concurrency (C)		Homogenized Risk (R)		Total Risk Score
	Value	Scale (Average Calls per Period)	Value	Scale (%)	Value	Scale (Average Score)	$\sqrt{\frac{[(CD)^2 + (CR)^2 + (DR)^2]}{2}}$
Maximum	10	> 4,049	10	> 26.99	10	10	≥ 99.5
High	7 to 9	> 2,699 to 4,049	7 to 9	> 17.99 to 26.99	7 to 9	7 to < 10	44.5 to < 99.5
Moderate	4 to 6	> 1,349 to 2,699	4 to 6	> 8.99 to 17.99	4 to 6	4 to < 7	12 to < 44.5
Low	1 to 3	≤ 1,349	1 to 3	≤ 8.99	1 to 3	< 4	< 12

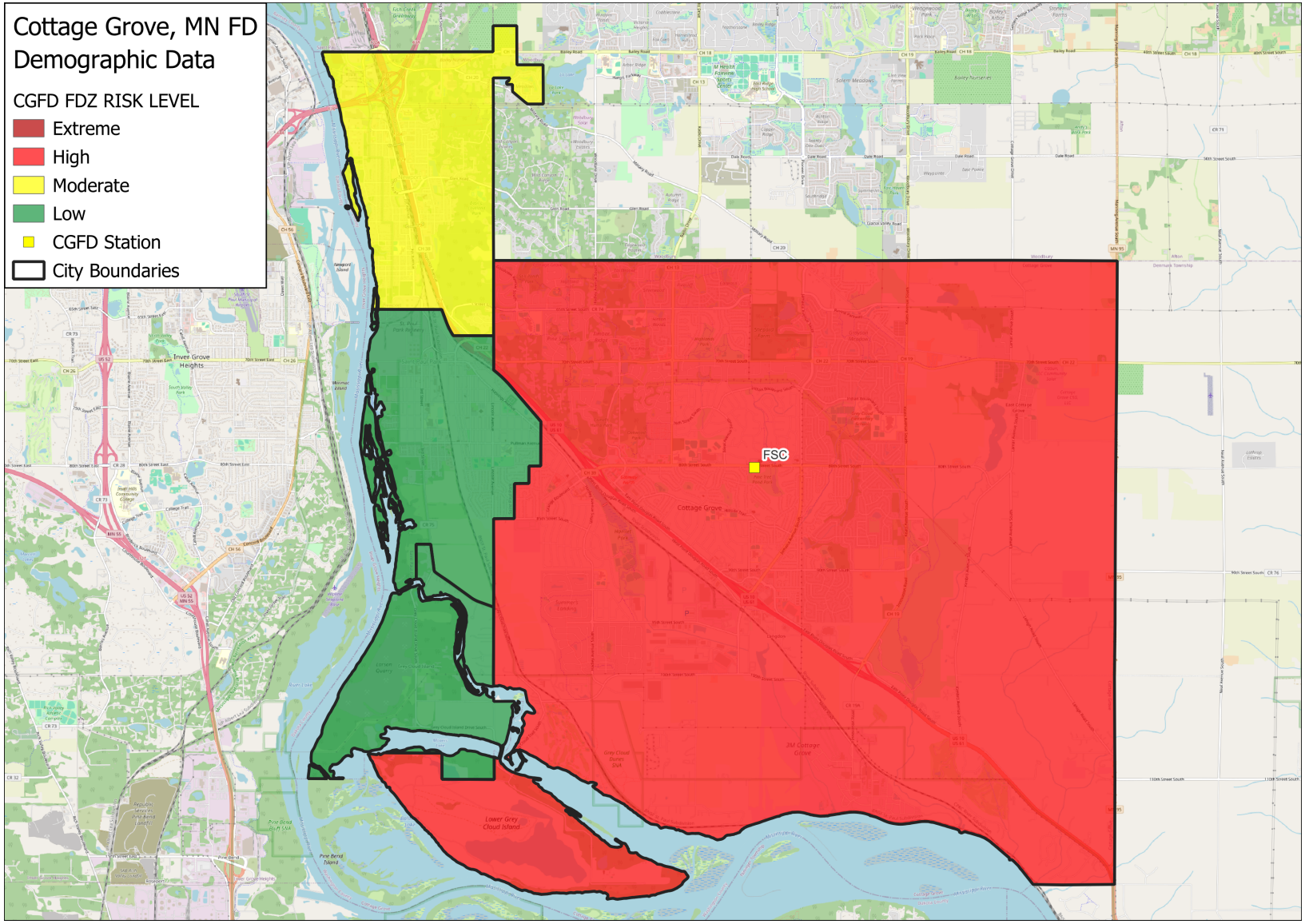
Component and final risk scores by demand zone are reported in Table 12 on the next page, sorted in descending order by final risk score. Risk profiles for each demand zone subsequently appear in Figure 9 through Figure 12. Finally, call volume and call concurrency metrics are then presented by demand zone in Table 13 through Table 21.

Risk Level Scoring by Demand Zone (RMS/NFIRS City)

Table 12: Risk Scoring by Demand Zone (RMS/NFIRS City) – Component and Average Scores for Economic and Demographic Variables, Community Demand Data and Scores, Call Concurrency Data and Scores, and Final Scores

	Economic and Demographic Data								Historical Service Data 2022-2024					Final Scoring	
Demand Zone (RMS/NFIRS City)	Population Density	Square Miles	Median Age of Residents	Median Household Income	Unemployment Rate	Percentage of Homes ≥ 55 Years Old	Census Average Value	Census Average Value Risk Score	Total Number of Calls	Average Number of Calls per Year	Demand Risk Score	Call Concurrency Rate	Call Concurrency Rate Risk Score	Final Risk Score	Final Risk Level
Cottage Grove	3	10	4	4	5	9	5.83	5	9,119	3,039.7	7	25.7	9	60.08	High
Newport	3	2	4	10	8	10	6.17	6	1,491	497.0	2	5.8	2	12.33	Moderate
Saint Paul Park	4	2	5	7	2	10	5.00	5	1,428	476.0	2	5.5	2	10.39	Low
Township of Grey Cloud Island	1	2	6	4	9	10	5.33	5	128	42.7	1	0.8	1	5.05	Low

Figure 8: Station FDZ by Risk Severity



Demand Zone Risk Profiles

Figure 9: Risk Profile – Cottage Grove

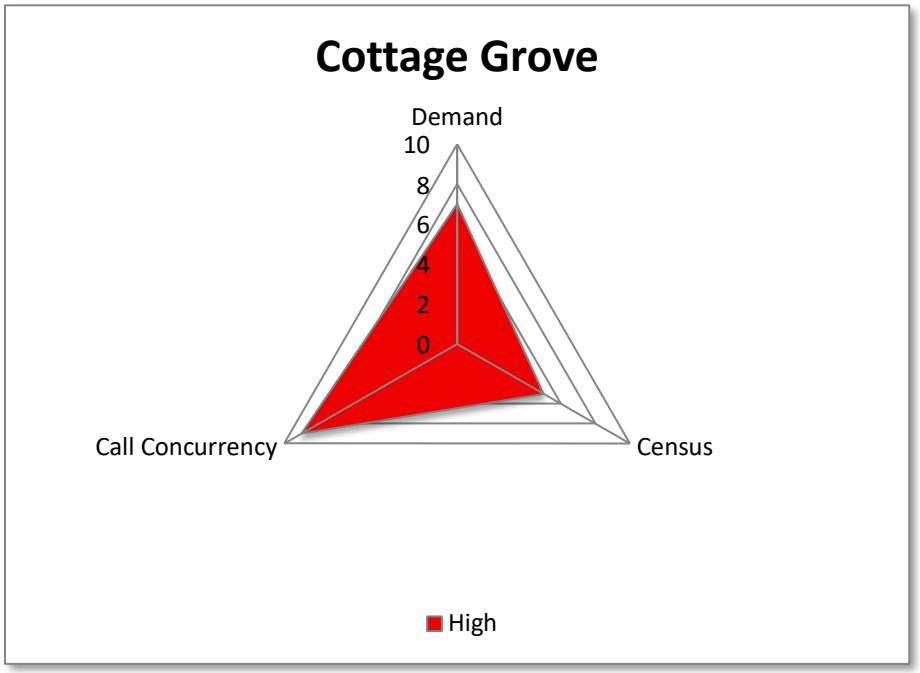


Figure 10: Risk Profile – Newport

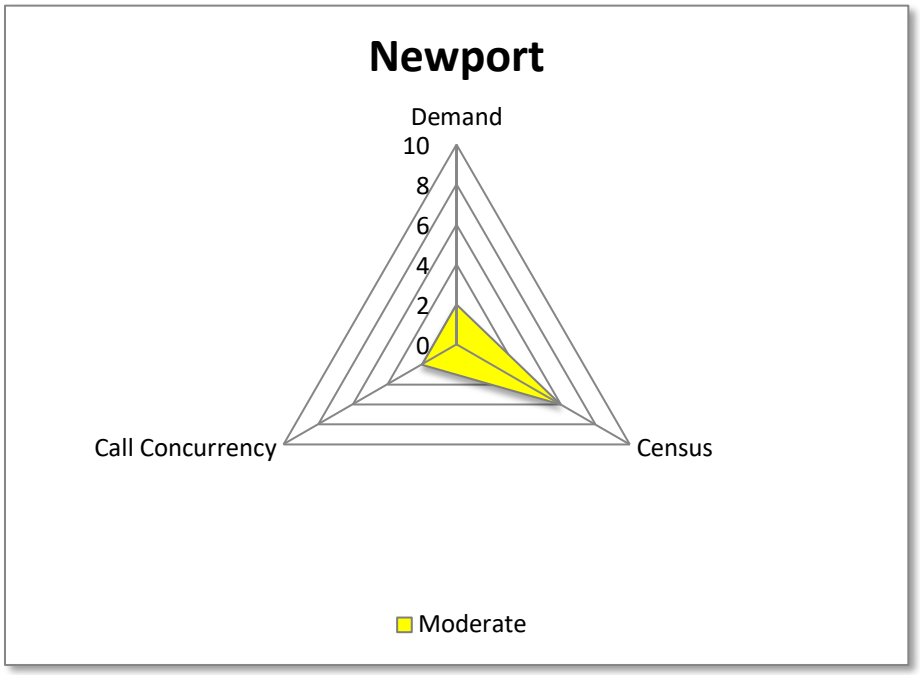


Figure 11: Risk Profile – Saint Paul Park

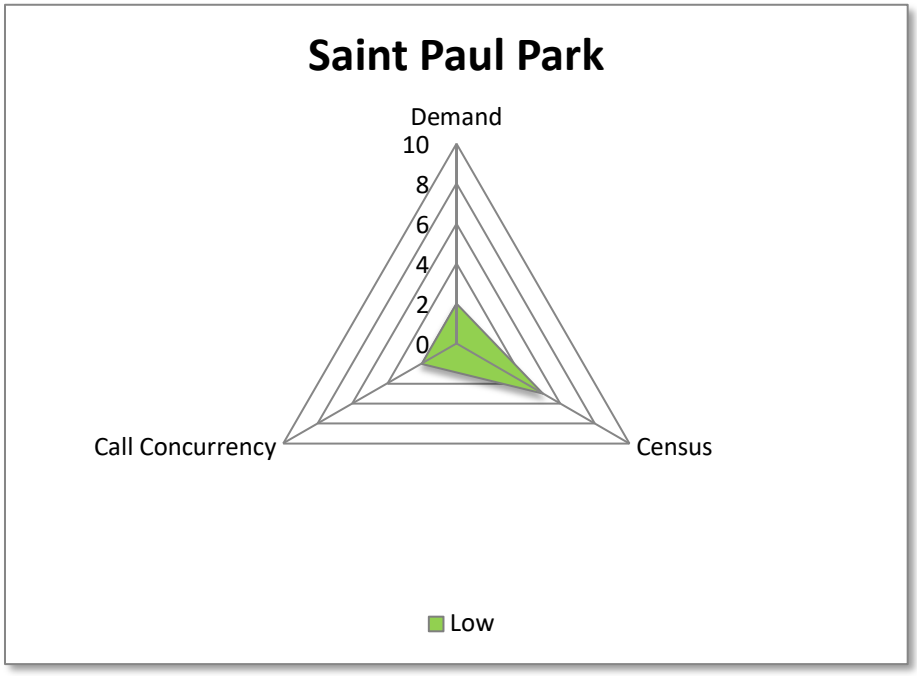
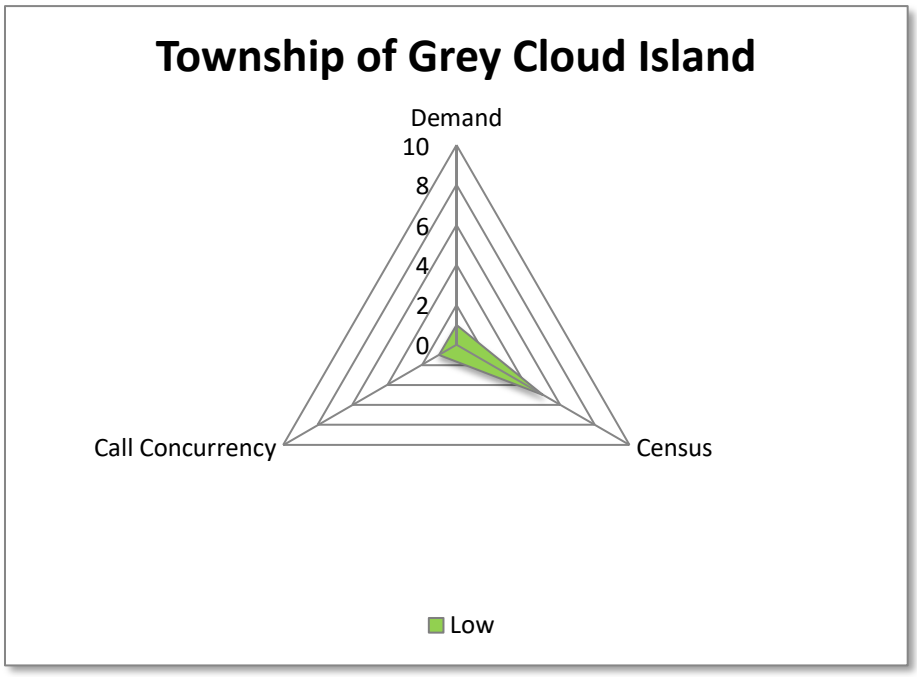


Figure 12: Risk Profile – Township of Grey Cloud Island



Demand Zone – Cottage Grove

Table 13: Number of Calls by CAD Program, CAD Call Type, and Reporting Period – Cottage Grove

CAD Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
EMS	**2,537**	**2,638**	**2,693**
Breathing Problem	307	267	248
Cardiac and Stroke	331	324	307
Fall and Injury	553	547	607
Illness and Other	1,012	1,171	1,165
Mutual Aid	4	2	4
MVA	102	110	125
Overdose and Psychiatric	48	43	47
Seizure and Unconsciousness	180	174	190
Fire	**353**	**349**	**444**
Brush Fire	9	10	5
Fire Alarm	214	181	224
Fire Other	23	37	63
Hazardous Condition	39	57	85
Mutual Aid	0	1	1
Outside Fire	18	14	18
Structure Fire	35	42	30
Vehicle Fire	15	7	18
Hazmat	**32**	**26**	**23**
Hazmat	32	26	23
Rescue	**7**	**9**	**8**
Rescue	7	9	8
Total	**2,929**	**3,022**	**3,168**
Average Calls per Day[3]	**8.0**	**8.3**	**8.7**
YoY Growth	**N/A**	**3.2%**	**4.8%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 14: Call Concurrency – Cottage Grove

Demand Zone (RMS/NFIRS City)	Reporting Period[1]	Number of Overlapped Calls	Total Number of Calls	Percentage of Overlapped Calls
Cottage Grove	2022	705	2,929	24.1
	2023	784	3,022	25.9
	2024	855	3,168	27.0
	All	**2,344**	**9,119**	**25.7**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.

Table 15: Number of Responses in All Jurisdictions Made by Unit ID, Unit Type, and Reporting Period – Units Assigned to CGFD

		Reporting Period[1]		
Unit ID	Unit Type	2022	2023	2024
CGAB1	Boat	2	1	0
CGAMB1	Ambulance	2,278	2,279	2,259
CGAMB2	Ambulance	769	790	673
CGAMB3	Ambulance	1,410	1,091	1,178
CGB2	Brush Truck	13	3	12
CGCH1	Chief Officer Car	62	72	58
CGCH2	Chief Officer Car	55	71	68
CGCH3	Chief Officer Car	20	5	33
CGCT1	Captain	12	16	46
CGCT2	Captain	37	24	70
CGCT3	Captain	27	26	64
CGE1	Engine	14	14	2
CGE3	Tender	18	6	7
CGE4	Engine	506	593	621
CGFM1	Fire Marshal	0	0	16
CGL1	Ladder Truck	55	70	82
CGL2	Ladder Truck	23	25	36
CGLT1	POC Lieutenant	0	1	0
CGU1	Utility	15	3	46
CGU4	Utility	2	2	0
Total		**5,318**	**5,092**	**5,271**
Average Responses per Day[2]		**14.6**	**14.0**	**14.4**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective reporting period.
[2]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Demand Zone – Newport

Table 16: Number of Calls by CAD Program, CAD Call Type, and Reporting Period – Newport

CAD Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
EMS	**466**	**506**	**519**
Breathing Problem	64	55	44
Cardiac and Stroke	50	51	67
Fall and Injury	62	80	80
Illness and Other	218	256	261
Mutual Aid	0	0	0
MVA	41	31	39
Overdose and Psychiatric	8	5	9
Seizure and Unconsciousness	23	28	19
Fire	**0**	**0**	**0**
Brush Fire	0	0	0
Fire Alarm	0	0	0
Fire Other	0	0	0
Hazardous Condition	0	0	0
Mutual Aid	0	0	0
Outside Fire	0	0	0
Structure Fire	0	0	0
Vehicle Fire	0	0	0
Hazmat	**0**	**0**	**0**
Hazmat	0	0	0
Rescue	**0**	**0**	**0**
Rescue	0	0	0
Total	**466**	**506**	**519**
Average Calls per Day[3]	**1.3**	**1.4**	**1.4**
YoY Growth	**N/A**	**8.6%**	**2.6%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 17: Call Concurrency – Newport

Demand Zone (RMS/NFIRS City)	Reporting Period[1]	Number of Overlapped Calls	Total Number of Calls	Percentage of Overlapped Calls
Newport	2022	25	466	5.4
	2023	33	506	6.5
	2024	29	519	5.6
	All	**87**	**1,491**	**5.8**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.

Demand Zone – Saint Paul Park

Table 18: Number of Calls by CAD Program, CAD Call Type, and Reporting Period – Saint Paul Park

CAD Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
EMS	**485**	**476**	**467**
Breathing Problem	61	59	44
Cardiac and Stroke	62	43	47
Fall and Injury	95	132	116
Illness and Other	216	197	222
Mutual Aid	1	0	0
MVA	14	15	9
Overdose and Psychiatric	12	11	6
Seizure and Unconsciousness	24	19	23
Fire	**0**	**0**	**0**
Brush Fire	0	0	0
Fire Alarm	0	0	0
Fire Other	0	0	0
Hazardous Condition	0	0	0
Mutual Aid	0	0	0
Outside Fire	0	0	0
Structure Fire	0	0	0
Vehicle Fire	0	0	0
Hazmat	**0**	**0**	**0**
Hazmat	0	0	0
Rescue	**0**	**0**	**0**
Rescue	0	0	0
Total	**485**	**476**	**467**
Average Calls per Day[3]	**1.3**	**1.3**	**1.3**
YoY Growth	**N/A**	**-1.9%**	**-1.9%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 19: Call Concurrency – Saint Paul Park

Demand Zone (RMS/NFIRS City)	Reporting Period[1]	Number of Overlapped Calls	Total Number of Calls	Percentage of Overlapped Calls
Saint Paul Park	2022	25	485	5.2
	2023	32	476	6.7
	2024	21	467	4.5
	All	**78**	**1,428**	**5.5**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.

Demand Zone – Township of Grey Cloud Island

Table 20: Number of Calls by CAD Program, CAD Call Type, and Reporting Period – Township of Grey Cloud Island

CAD Program and Call Type[2]	Reporting Period[1] 2022	2023	2024
EMS	**35**	**35**	**58**
Breathing Problem	4	8	2
Cardiac and Stroke	3	6	4
Fall and Injury	2	4	6
Illness and Other	7	9	33
Mutual Aid	0	0	0
MVA	0	2	4
Overdose and Psychiatric	0	0	0
Seizure and Unconsciousness	19	6	9
Fire	**0**	**0**	**0**
Brush Fire	0	0	0
Fire Alarm	0	0	0
Fire Other	0	0	0
Hazardous Condition	0	0	0
Mutual Aid	0	0	0
Outside Fire	0	0	0
Structure Fire	0	0	0
Vehicle Fire	0	0	0
Hazmat	**0**	**0**	**0**
Hazmat	0	0	0
Rescue	**0**	**0**	**0**
Rescue	0	0	0
Total	**35**	**35**	**58**
Average Calls per Day[3]	**0.1**	**0.1**	**0.2**
YoY Growth	**N/A**	**0.0%**	**65.7%**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.
[2]Classifications of incident types from the data file into program and call type category are presented in the Appendix.
[3]Reporting period 2024 contained 366 days due to inclusion of leap year date February 29. The other reporting periods each contained 365 days.

Table 21: Call Concurrency – Township of Grey Cloud Island

Demand Zone (RMS/NFIRS City)	Reporting Period[1]	Number of Overlapped Calls	Total Number of Calls	Percentage of Overlapped Calls
Township of Grey Cloud Island	2022	1	35	2.9
	2023	0	35	0.0
	2024	0	58	0.0
	All	**1**	**128**	**0.8**

[1]Reporting periods reflect calendar years spanning January 1 to December 31 of each respective period.

APPENDIX

Classification of Program Area

Table 22: Classification of Problem into Program and Call Type Categories – CAD Data File

Program	Call Type	"Problem" Entry from CAD Data File[1]
EMS	Breathing Problem	yChoking-1
EMS	Breathing Problem	yChoking-3
EMS	Breathing Problem	yDifficulty Breathing
EMS	Cardiac and Stroke	yCardiac/Heart Problems-1
EMS	Cardiac and Stroke	yCardiac/Heart Problems-2
EMS	Cardiac and Stroke	yCardiac/Heart Problems-3
EMS	Cardiac and Stroke	yChest Pain(Non-Cardiac)-1
EMS	Cardiac and Stroke	yChest Pain(Non-Cardiac)-2
EMS	Cardiac and Stroke	yCPR/Full Arrest
EMS	Cardiac and Stroke	yStroke-1
EMS	Cardiac and Stroke	yStroke-2
EMS	Cardiac and Stroke	yStroke-3
EMS	Fall and Injury	yAnimal Bite Injury-1
EMS	Fall and Injury	yAnimal Bite Injury-2
EMS	Fall and Injury	yAnimal Bite Injury-3
EMS	Fall and Injury	yAssault Injury-1
EMS	Fall and Injury	yAssault Injury-2
EMS	Fall and Injury	yAssault Injury-3
EMS	Fall and Injury	yBleeding-1
EMS	Fall and Injury	yBleeding-3
EMS	Fall and Injury	yBurns-1
EMS	Fall and Injury	yBurns-2
EMS	Fall and Injury	yBurns-3
EMS	Fall and Injury	yDomestic Violence Injury-1
EMS	Fall and Injury	yDomestic Violence Injury-2
EMS	Fall and Injury	yDomestic Violence Injury-3
EMS	Fall and Injury	yElectrical Hazard with Injury
EMS	Fall and Injury	yEye Problem/Injury-1
EMS	Fall and Injury	yEye Problem/Injury-3
EMS	Fall and Injury	yFall-1
EMS	Fall and Injury	yFall-2
EMS	Fall and Injury	yFall-3
EMS	Fall and Injury	yMachine/Industrial Accident-1
EMS	Fall and Injury	yShooting with Injuries

Program	Call Type	"Problem" Entry from CAD Data File[1]
EMS	Fall and Injury	yStabbing
EMS	Fall and Injury	yTraumatic Inj/Head Injury-1
EMS	Fall and Injury	yTraumatic Inj/Head Injury-2
EMS	Fall and Injury	yTraumatic Inj/Head Injury-3
EMS	Illness and Other	yAbdominal Pain/Problem-1
EMS	Illness and Other	yAbdominal Pain/Problem-2
EMS	Illness and Other	yAbdominal Pain/Problem-3
EMS	Illness and Other	yAllergic Reaction
EMS	Illness and Other	yBack Pain(Non-Trauma)-1
EMS	Illness and Other	yBack Pain(Non-Trauma)-2
EMS	Illness and Other	yBack Pain(Non-Trauma)-3
EMS	Illness and Other	yChildbirth/Obstetrics-1
EMS	Illness and Other	yChildbirth/Obstetrics-2
EMS	Illness and Other	yCO/Inhalation
EMS	Illness and Other	yDiabetic-1
EMS	Illness and Other	yDiabetic-3
EMS	Illness and Other	yExposure Heat/Cold-1
EMS	Illness and Other	yExposure Heat/Cold-3
EMS	Illness and Other	yHeadache-1
EMS	Illness and Other	yHeadache-2
EMS	Illness and Other	yHeadache-3
EMS	Illness and Other	yLE Incident w/ Medical-1
EMS	Illness and Other	yLE Incident w/ Medical-3
EMS	Illness and Other	yLift Assist-Non Injury
EMS	Illness and Other	yMedical Alarm-1
EMS	Illness and Other	yMedical Alarm-2
EMS	Illness and Other	yPerson In Crisis-1
EMS	Illness and Other	yPerson In Crisis-3
EMS	Illness and Other	yPossible Death
EMS	Illness and Other	yRQ EMS by Public Safety-L1
EMS	Illness and Other	yRQ EMS by Public Safety-L3
EMS	Illness and Other	ySick Person-1
EMS	Illness and Other	ySick Person-3
EMS	Illness and Other	yUnknown Medical Situation-1
EMS	Illness and Other	yUnknown Medical Situation-3
EMS	Mutual Aid	yMutual Aid-EMS Plan (In)
EMS	Mutual Aid	yMutual Aid-EMS Request (Out)
EMS	MVA	yMVA: Hit and Run with Injury
EMS	MVA	yMVA: Injury-Entrapment
EMS	MVA	yMVA: Unknown Injury

Program	Call Type	"Problem" Entry from CAD Data File[1]
EMS	MVA	yVehicle Accident Injury
EMS	Overdose and Psychiatric	yAccidental OD/Poisoning-1
EMS	Overdose and Psychiatric	yAccidental OD/Poisoning-2
EMS	Overdose and Psychiatric	ySuicide or Attempted
EMS	Seizure and Unconsciousness	ySeizure-1
EMS	Seizure and Unconsciousness	ySeizure-3
EMS	Seizure and Unconsciousness	yUnconscious Person-1
EMS	Seizure and Unconsciousness	yUnconscious Person-2
EMS	Seizure and Unconsciousness	yUnconscious Person-3
Fire	Brush Fire	yBrush Fire
Fire	Fire Alarm	yFire Alarm
Fire	Fire Alarm	yFire Alarm - Water Flow
Fire	Fire Alarm	yFire Alarm Carbon Monoxide
Fire	Fire Other	yDumpster Fire
Fire	Fire Other	yElectrical Fire
Fire	Fire Other	yFire Initiated Call
Fire	Fire Other	yFire Report
Fire	Fire Other	yFire Unknown
Fire	Fire Other	yRQ Fire by Public Safety
Fire	Hazardous Condition	yElectrical Hazard
Fire	Hazardous Condition	yOdor/Smoke Smell Outside
Fire	Mutual Aid	yMutual Aid-FIRE
Fire	Outside Fire	yFire Outside
Fire	Structure Fire	yChimney Fire
Fire	Structure Fire	yOven Fire Contained to Oven
Fire	Structure Fire	ySmoke in Structure-No Flames
Fire	Structure Fire	yStructure Fire-Flames Seen
Fire	Vehicle Fire	yFire Vehicle
Hazmat	Hazmat	yGas Leak
Hazmat	Hazmat	yHAZMAT
Rescue	Rescue	yDiving/Drowning-1
Rescue	Rescue	yFire Dive
Rescue	Rescue	yFire Rescue Incident
Rescue	Rescue	yFire Rescue Incident-1
Rescue	Rescue	yFire Rescue Incident-3
Rescue	Rescue	yRQ EMS Rescue by PublicSafety
Rescue	Rescue	yWater Emergency

[1]Entries are presented verbatim from the data file.

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Cottage Grove

Where Pride and Prosperity Meet

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ESTABLISHING BASELINE PERFORMANCE

The first step in completing GIS planning analyses is to establish the desired performance parameters. Measures of total response time can be significantly influenced by both internal and external influences. For example, the dispatch time, defined as the time from call creation at the 911-center to the dispatching of units, contributes to the customer's overall response time experience. Another element in the total response time continuum is the turnout time, defined as the time from when the units are notified of the incident until they are actually responding. Turnout time can have a significant impact on the overall response time for the customer and is generally considered under management's control. However, the travel time, defined as the period from when the units are responding until arrival at the incident is the efficacy of the posting plan, the ability to travel unimpeded on the road network, the existing road network's ability to navigate the community, and the availability of the units. Largely, travel time is the most stable variable to utilize in system design regarding response time performance.

Therefore, these GIS planning analyses will focus on travel time capability as the unit of measure. Performance for travel time of first arriving Cottage Grove Fire Department (CGFD) units to emergency calls during the 2024 reporting period (i.e., January 1, 2024, to December 31, 2024) is provided below. Overall, travel time in Cottage Grove was 8.4 minutes or less for 90% of the incidents with an emergency response. EMS related incidents had a travel time performance of 8.5 minutes or less for 90% of the incidents, and fire related incidents had a travel time performance of 8.2 minutes or less for 90% of the incidents.

System Performance

Table 1: 90th Percentile Performance Times by CAD Program and RMS/NFIRS City – First Arriving CGFD Units in CGFD's Jurisdiction

CAD Program and RMS/NFIRS City[1]	Dispatch Time (Minutes)	Turnout Time (Minutes)	Travel Time (Minutes)	Response Time (Minutes)	Sample Size[2]
EMS	**4.2**	**2.9**	**9.5**	**14.5**	**1,616**
Cottage Grove	4.2	3.0	8.5	13.8	1,197
Newport	4.8	2.9	10.4	16.3	200
Saint Paul Park	3.6	2.8	11.5	15.2	196
Township of Grey Cloud Island	5.2	--	15.5	20.3	23
Fire	**4.6**	**3.7**	**8.2**	**13.0**	**252**
Hazmat	**5.7**	**4.2**	**7.7**	**12.9**	**18**
Rescue	**--**	**--**	**--**	**--**	**3**
Total Cottage Grove	**4.3**	**3.2**	**8.4**	**13.7**	**1,470**
Total All	**4.3**	**3.1**	**9.3**	**14.3**	**1,889**

[1]Metrics by RMS/NFIRS city are reported individually for EMS calls only, as CGFD units are first due to all fire, hazmat, and rescue calls in the RMS/NFIRS city value of Cottage Grove only.
[2]Sample sizes reflect the number of responses to emergency calls made by first arriving primary front-line units assigned to CGFD; due to missing or excluded time data, sample sizes corresponding to individual table metrics may be smaller.

Comparison to National References

There are two notable references for travel time available to the fire service in National Fire Protection Association (NFPA) 1710[1] and the Commission on Fire Accreditation International (CFAI)[2]. NFPA 1710 suggests a 4-minute travel time at the 90th percentile for first due arrival of Basic Life Support (BLS) and fire incidents, and the CFAI recommends a 5 minute and 12 seconds travel time for first due arrival in an urban/suburban population density. The arrival of an Advanced Life Support (ALS) unit is recommended at 8-minutes travel time by NFPA 1710. It is important to note that the latest editions of the CFAI guidelines have de-emphasized response time and only reference the legacy standards with a separately provided companion document[3].

The peer reviewed evidenced-based research suggests that the response time of 5 minutes or less has the greatest impact of the risk of mortality in a subgroup of calls with a high-risk of mortality. In these studies, it was commonly found that the risk of mortality did not materially change between 6-minutes and 12-minutes. In other words, establishing desired performance is largely a local policy choice because the relative return on investment is non-linear across all performance windows.

When referring to the marginal utility analyses provided in the tables on the following pages, ascending rank order is the station's capability to cover risk (incidents) for all calls in relation to the total historical call volume of the sample period (2024). Station or Post is the identifier for the current CGFD post; station/post capture is the number of calls the station would capture within the specified travel time parameter; total capture is the cumulative number of calls captured with the addition of each station/post; and percent capture is the cumulative percentage of risk covered with the addition of each station or post location.

The goal would be to achieve at least 90% capture. Figures depict drive-time mapping.

[1] National Fire Protection Association. (2010). NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*. Boston, MA: National Fire Protection Association.
[2] CFAI. (2009). Fire & emergency service self-assessment manual, (8th ed.). Chantilly, Virginia: Author. (page 71)
[3] CFAI. (2016). Fire & emergency service self-assessment manual, (9th ed.). Chantilly, Virginia: Author.

EVALUATION OF VARIOUS DISTRIBUTION MODELS

As previously discussed, these analyses utilized 2024 historical performance as the desired performance for system design. Various configurations of 4- to 10-minute travel times were completed to consider alternatives compared to the current performance of 8.4 minutes travel time at the 90th percentile.

City of Cottage Grove – Current Station - All Calls

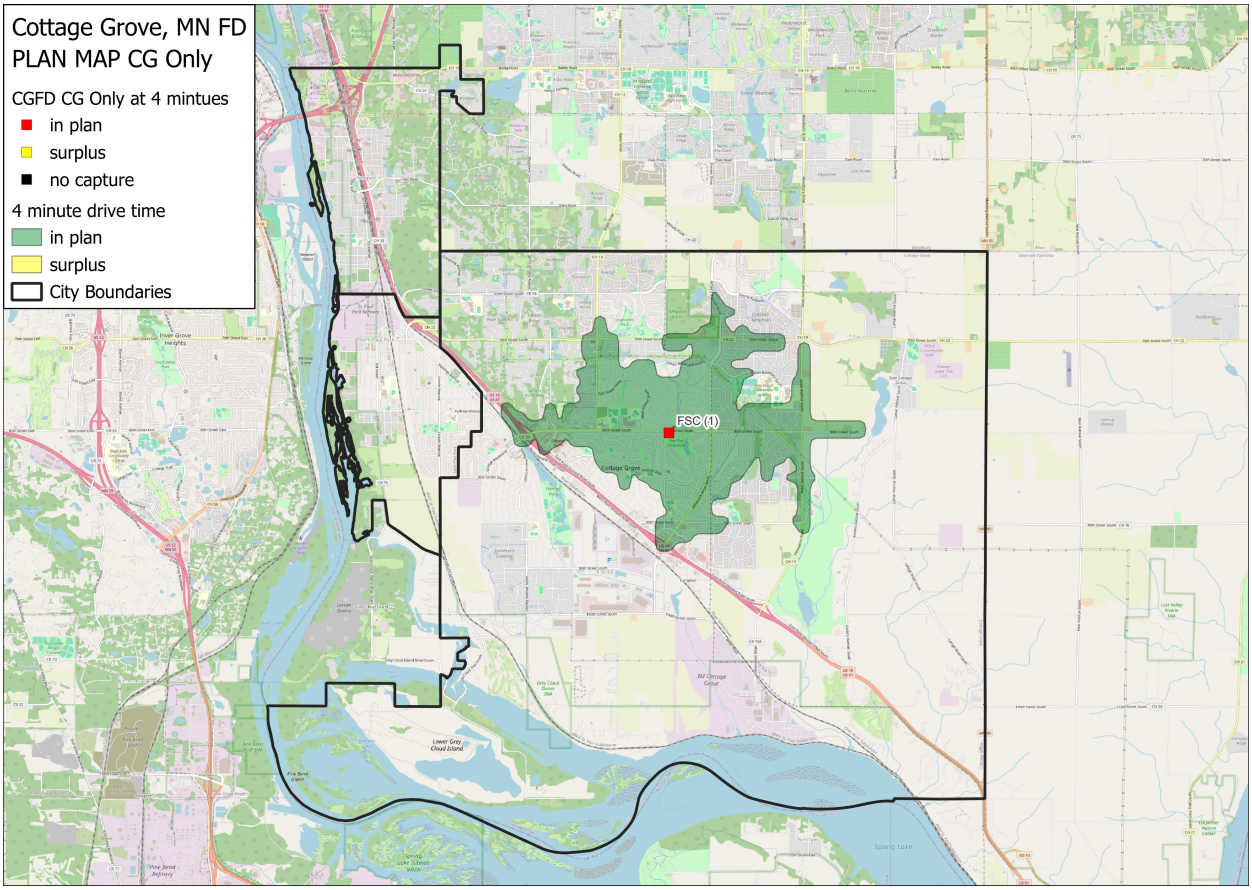
4-Minute Travel Time

Results suggest that with one CGFD station, 38.8% of calls can be responded to within 4 minutes or less travel time.

Table 2: Marginal Fire Station Contribution for 4-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	4	1,228	1,228	38.80%

Figure 1: Current CGFD Station Bleed Map for 4-Minute Travel Time– All Calls



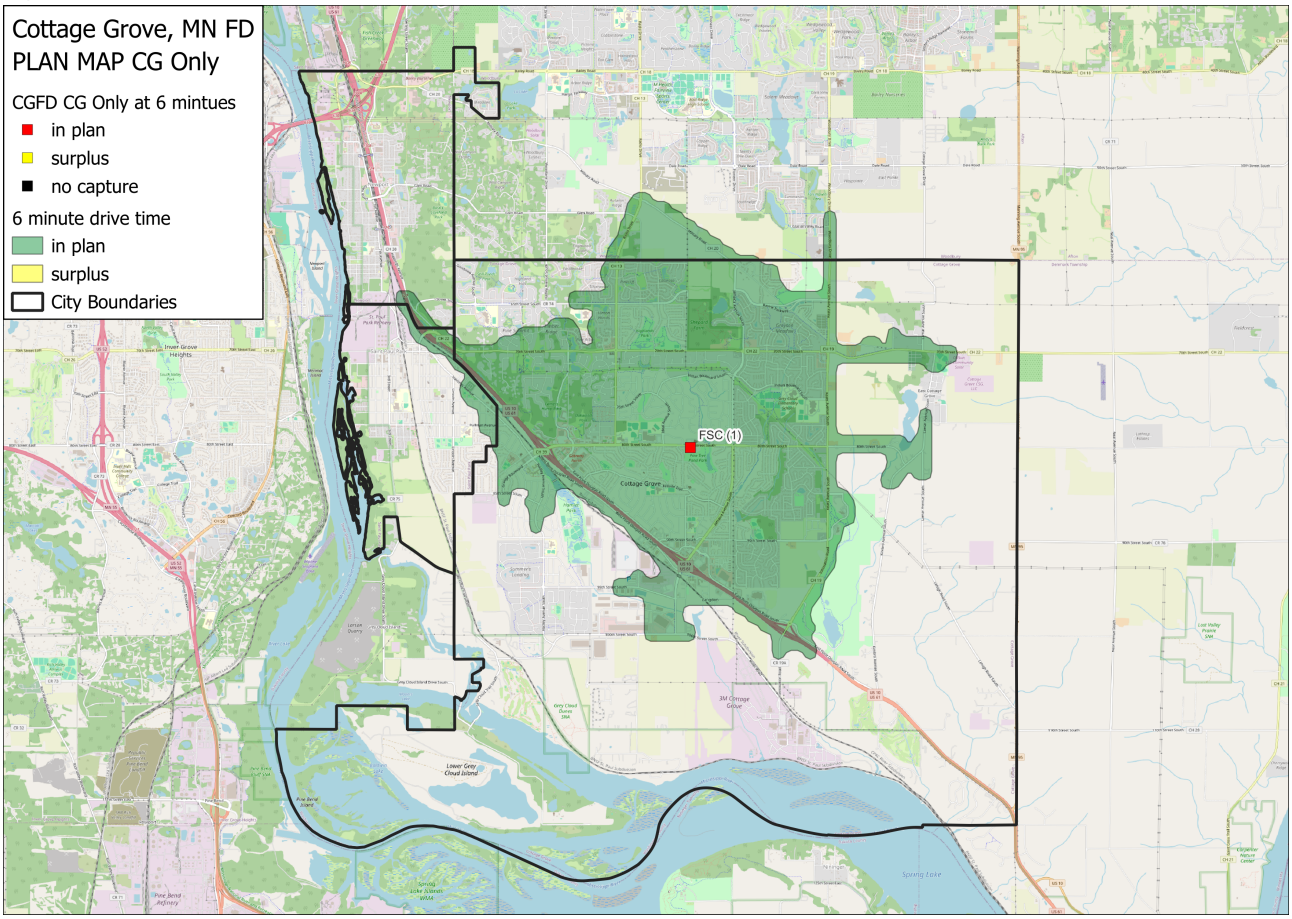
6-Minute Travel Time

Results suggest that with one CGFD station, 81.11% of calls can be responded to within 6 minutes or less travel time.

Table 3: Marginal Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	6	2,567	2,567	81.11%

Figure 2: Current CGFD Station Bleed Map for 6-Minute Travel Time– All Calls



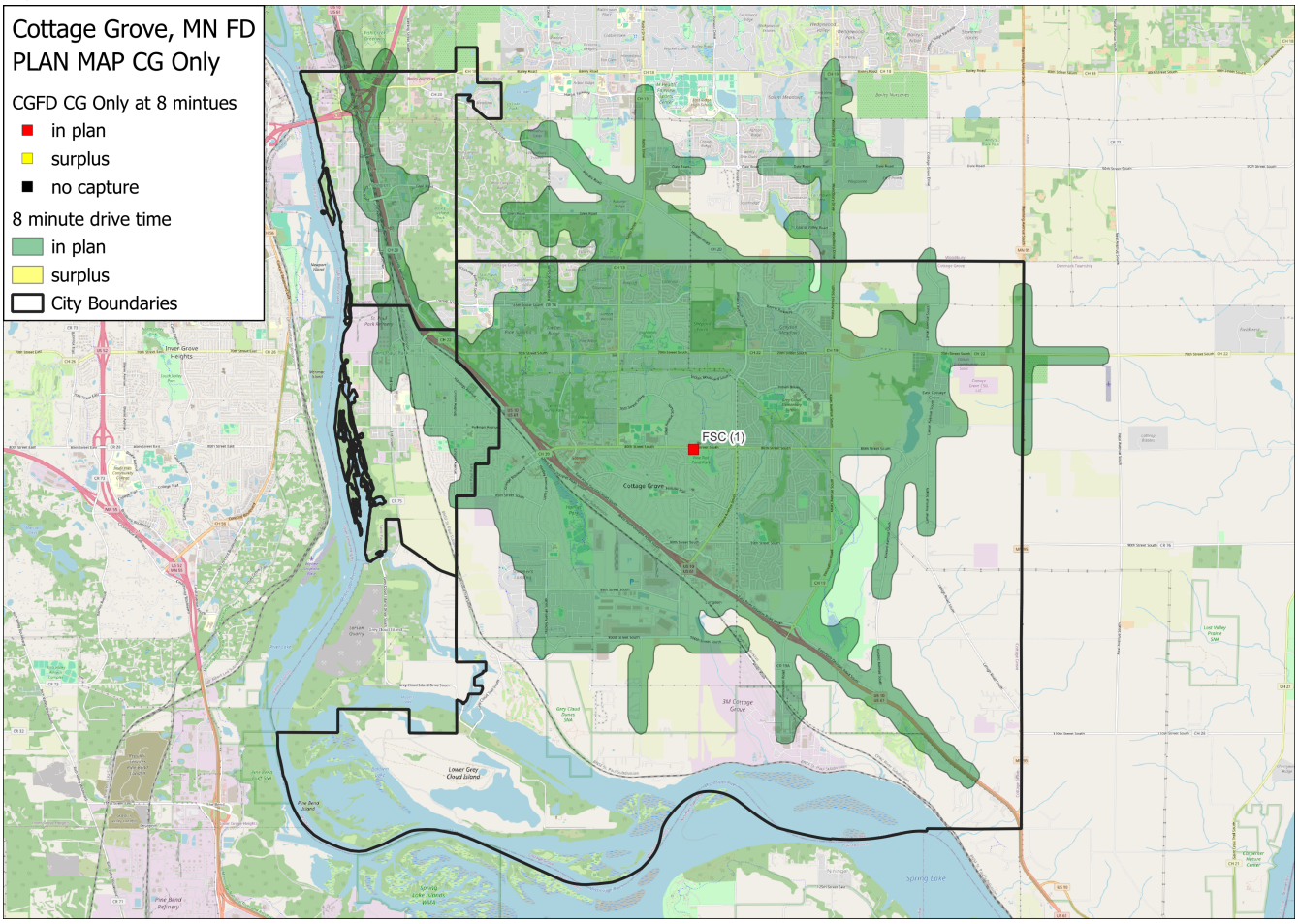
8-Minute Travel Time

Results suggest that with one CGFD station, 93.52% of calls can be responded to within 8 minutes or less travel time.

Table 4: Marginal Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	8	2,960	2,960	93.52%

Figure 3: Current CGFD Station Bleed Map for 8-Minute Travel Time– All Calls



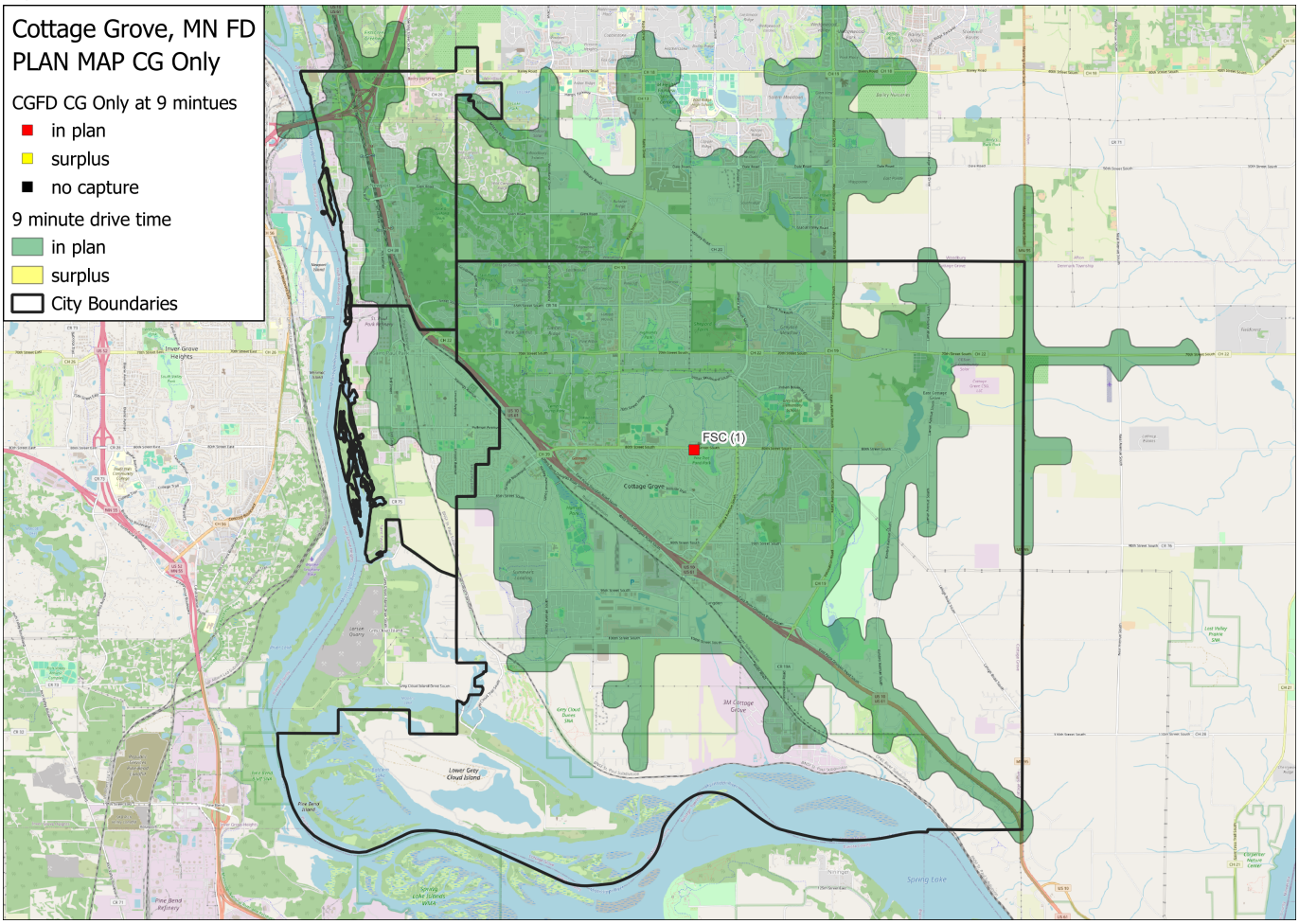
9-Minute Travel Time

Results suggest that with one CGFD station, 96.94% of calls can be responded to within 9 minutes or less travel time.

Table 5: Marginal Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	9	3,068	3,068	96.94%

Figure 4: Current CGFD Station Bleed Map for 9-Minute Travel Time– All Calls



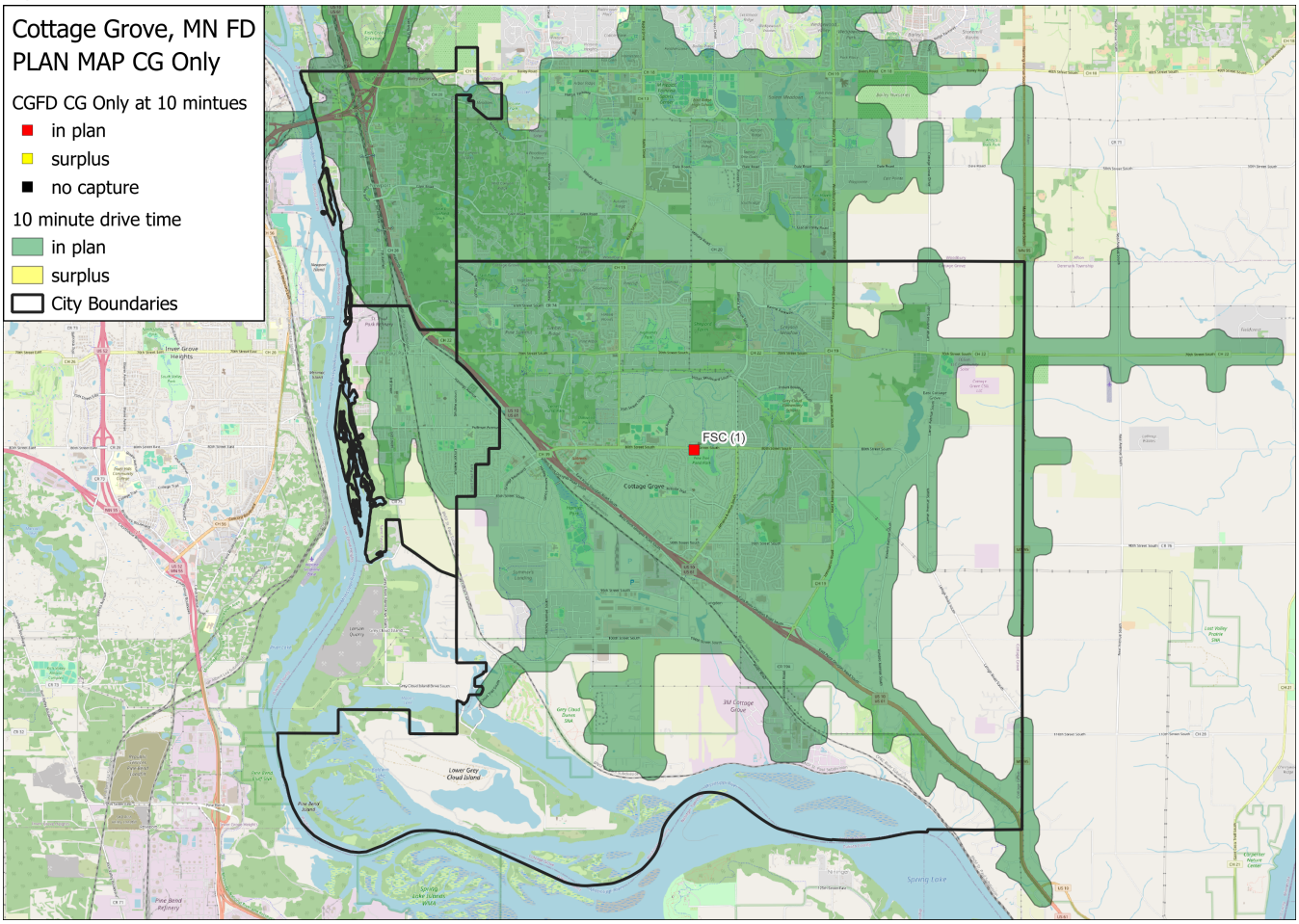
10-Minute Travel Time

Results suggest that with one CGFD station, 97.6% of calls can be responded to within 10 minutes or less travel time.

Table 6: Marginal Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	10	3,089	3,089	97.60%

Figure 5: Current CGFD Station Bleed Map for 10-Minute Travel Time– All Calls



City of Cottage Grove – Optimized Stations - All Calls

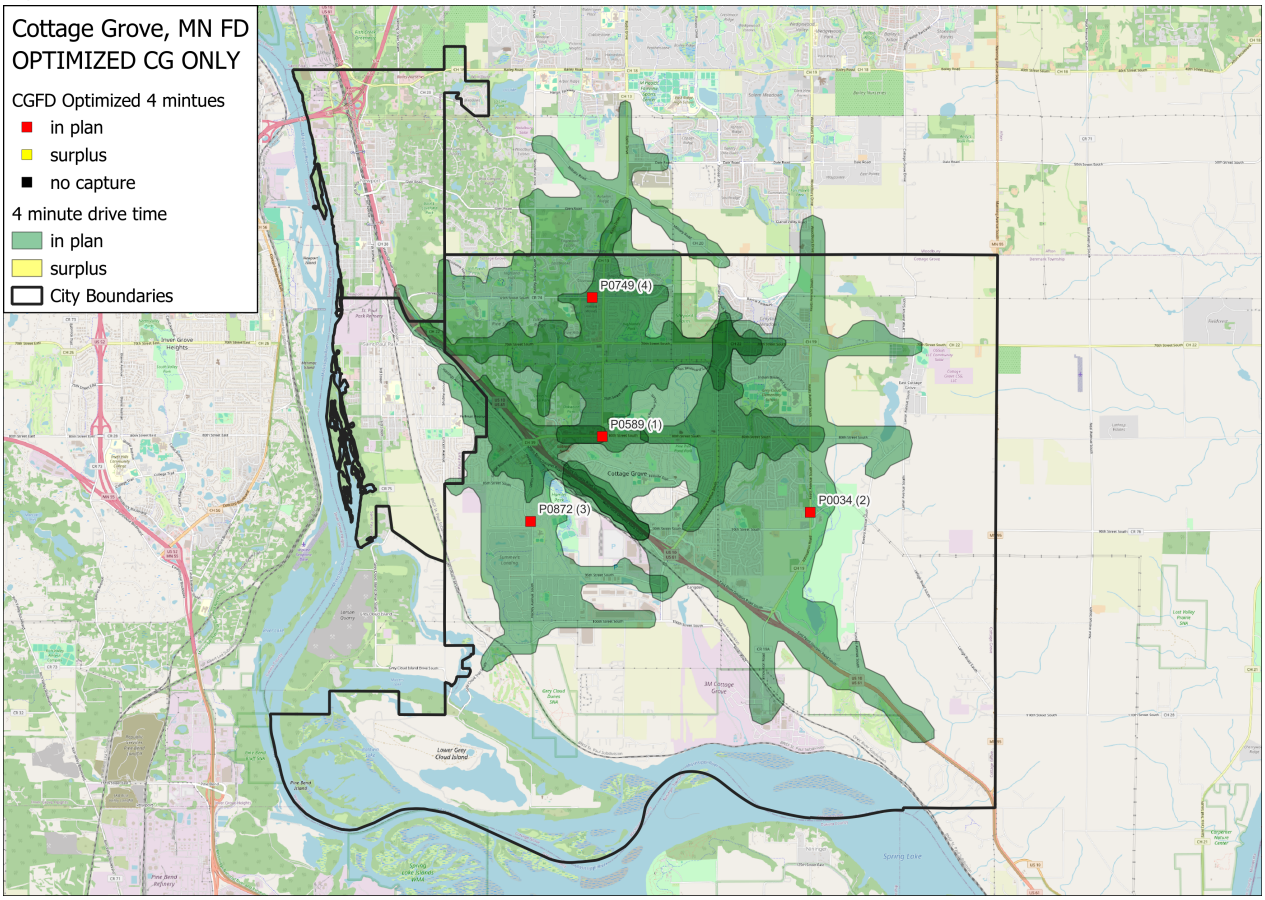
4-Minute Travel Time

Results suggest that with four CGFD stations, 93.24% of calls can be responded to within 4 minutes or less travel time.

Table 7: Optimized Fire Station Contribution for 4-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0589	4	1,834	1,834	57.95%
2	P0034	4	565	2,399	75.80%
3	P0872	4	399	2,798	88.40%
4	P0749	4	153	2,951	93.24%

Figure 6: Optimized Stations Bleed Map for 4-Minute Travel Time– All Calls



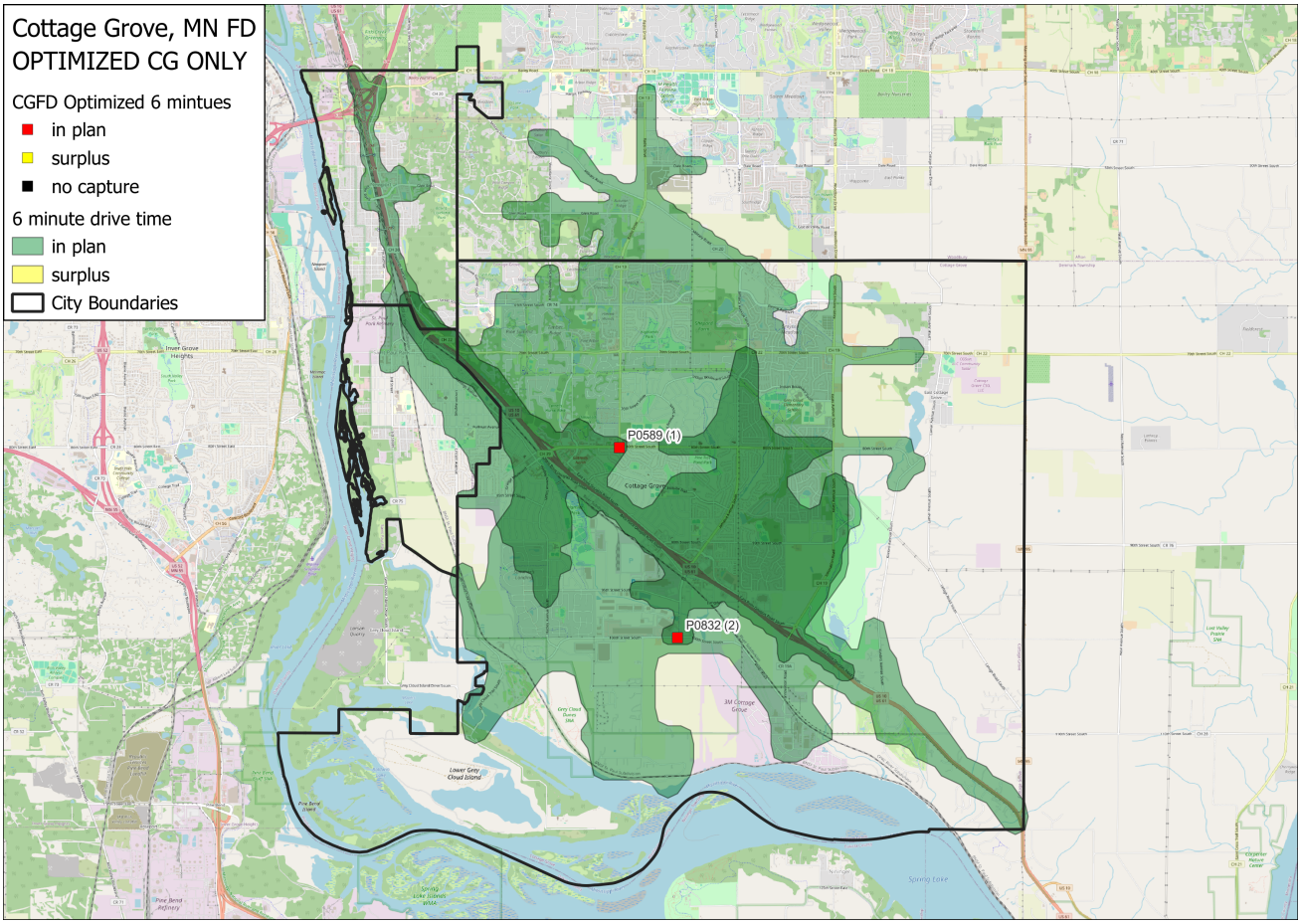
6-Minute Travel Time

Results suggest that with two stations, 96.87% of calls can be responded to within 6 minutes or less travel time.

Table 8: Optimized Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0589	6	2,774	2,774	87.65%
2	P0832	6	292	3,066	96.87%

Figure 7: Optimized Station Bleed Map for 6-Minute Travel Time– All Calls



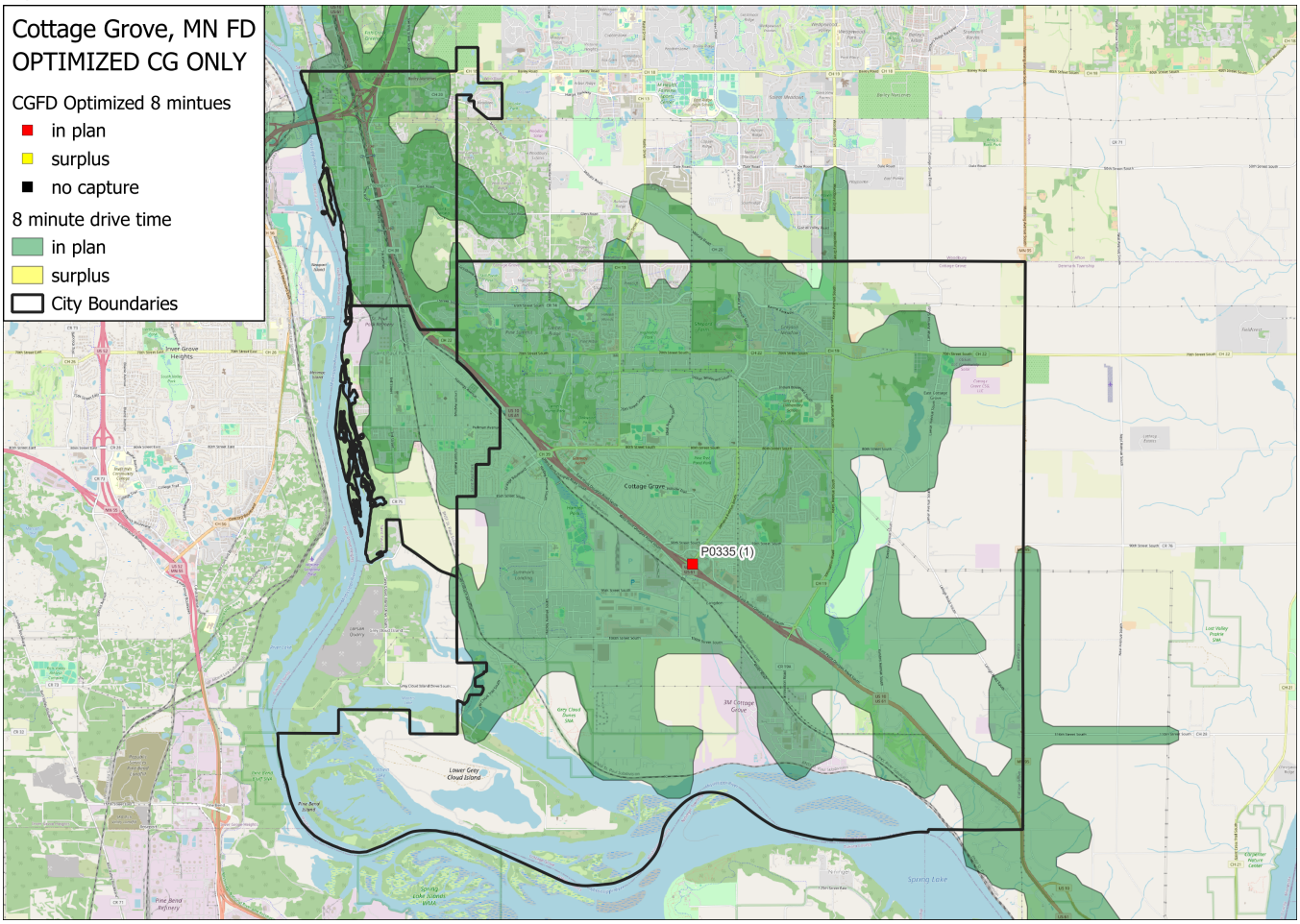
8-Minute Travel Time

Results suggest that with one station, 98.1% of calls can be responded to within 8 minutes or less travel time.

Table 9: Optimized Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0335	8	3,105	3,105	98.10%

Figure 8: Optimized Station Bleed Map for 8-Minute Travel Time– All Calls



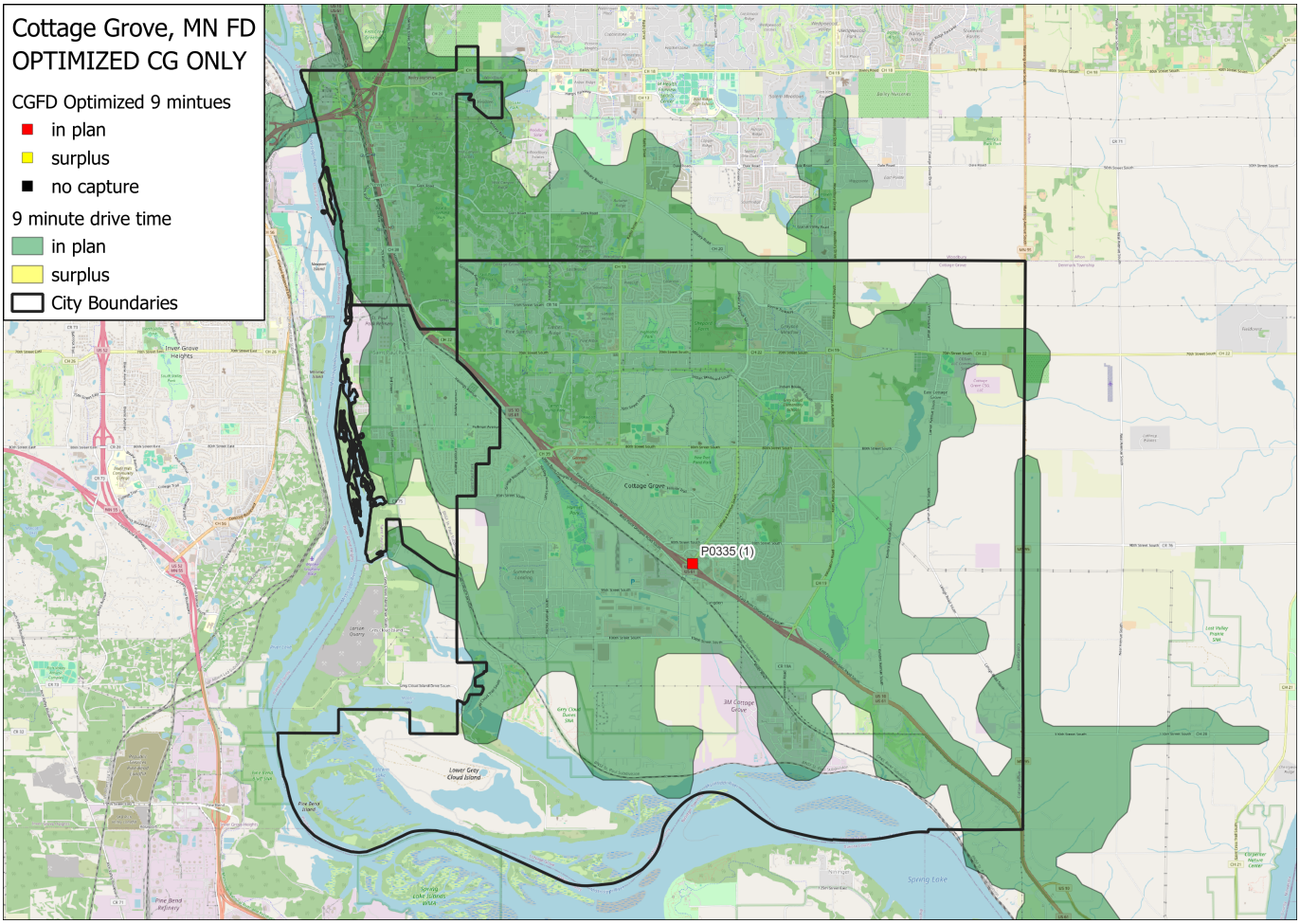
9-Minute Travel Time

Results suggest that with one station, 99.68% of calls can be responded to within 9 minutes or less travel time.

Table 10: Optimized Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0335	9	3,155	3,155	99.68%

Figure 9: Optimized Station Bleed Map for 9-Minute Travel Time– All Calls



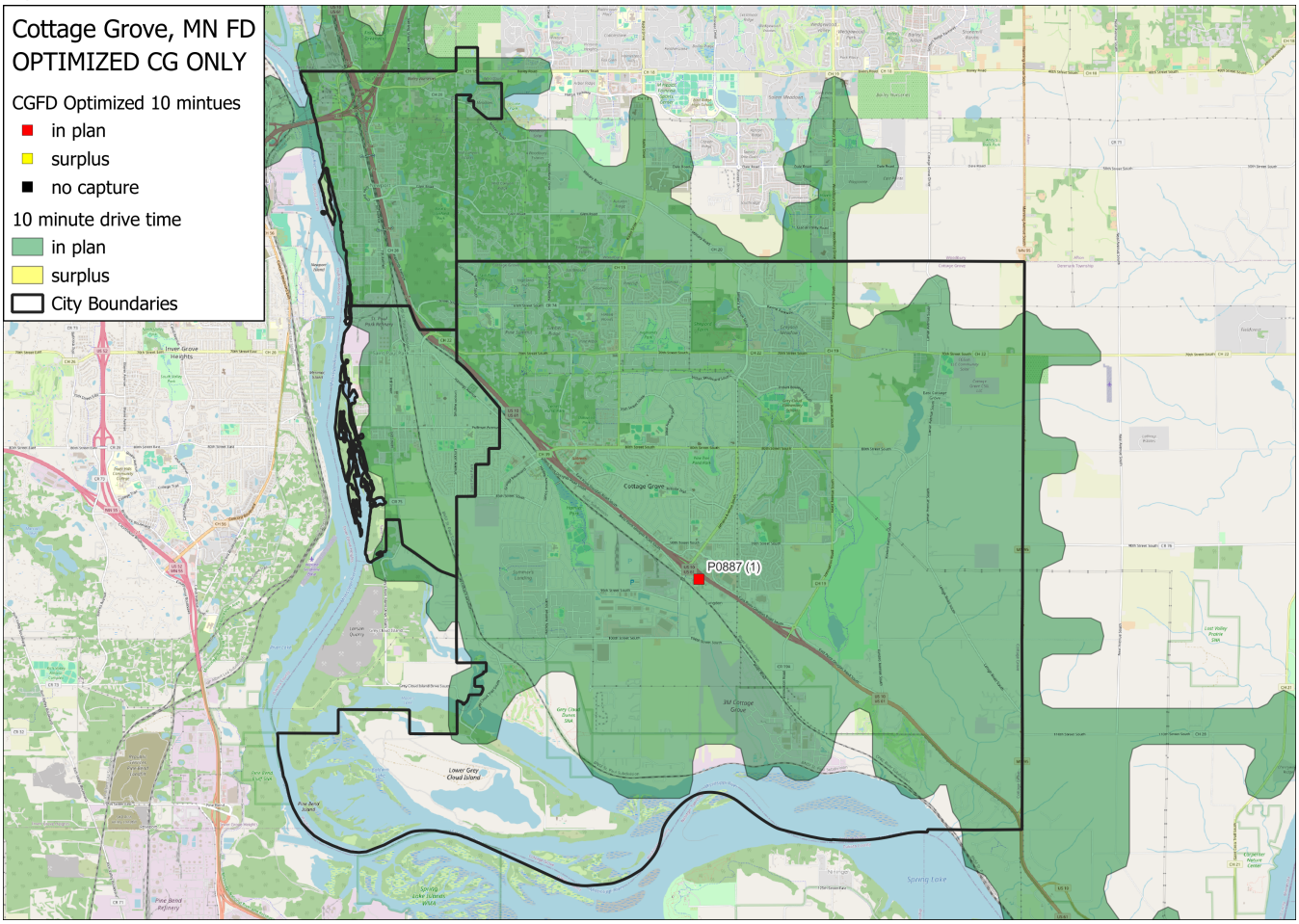
10-Minute Travel Time

Results suggest that with one station, 99.84% of calls can be responded to within 10 minutes or less travel time.

Table 11: Optimized Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0887	10	3,160	3,160	99.84%

Figure 10: Optimized Station Bleed Map for 10-Minute Travel Time– All Calls



All Jurisdictions – Current Station - All Calls

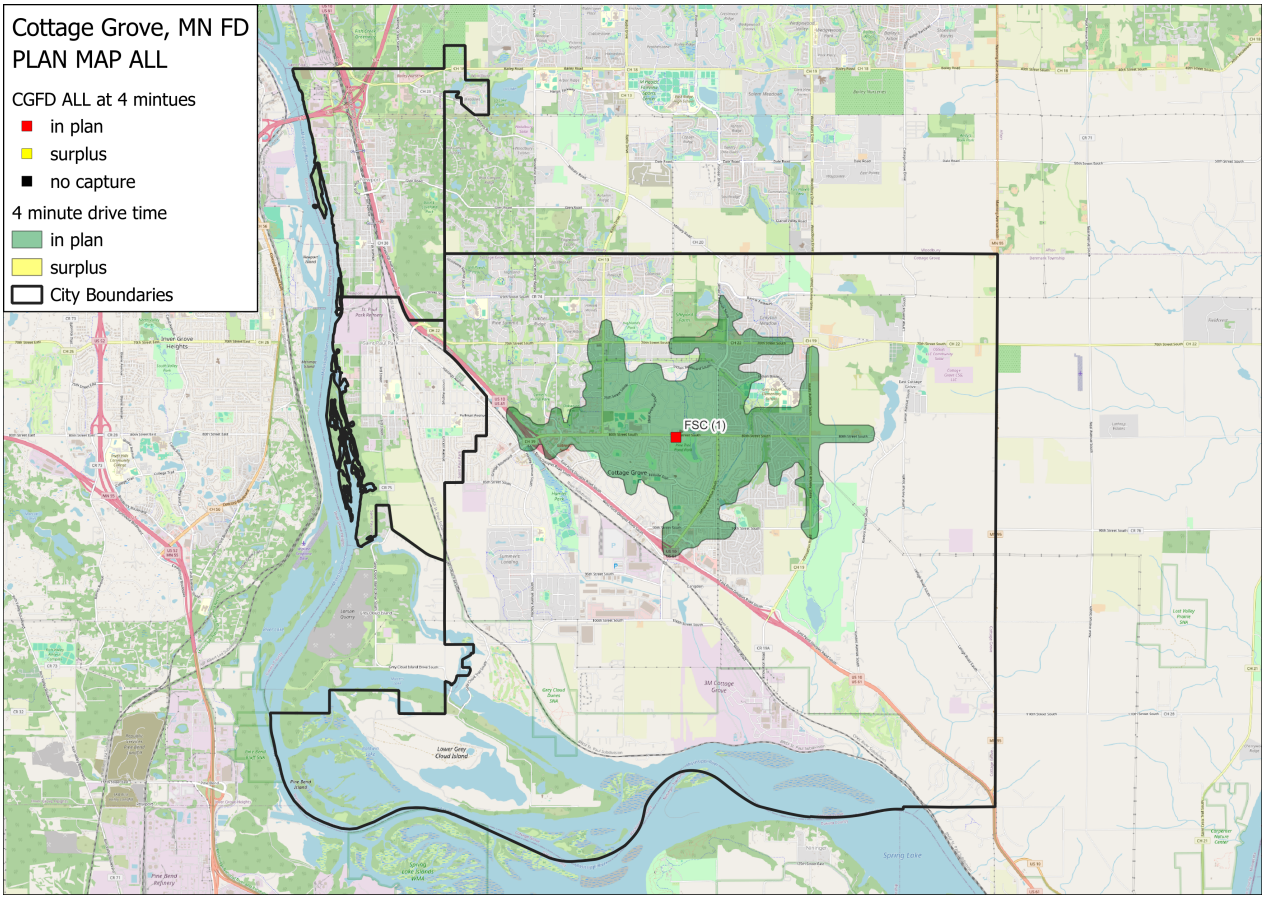
4-Minute Travel Time

Results suggest that with one CGFD station, 29.18% of calls can be responded to within 4 minutes or less travel time.

Table 12: Marginal Fire Station Contribution for 4-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	4	1,228	1,228	29.18%

Figure 11: Current CGFD Station Bleed Map for 4-Minute Travel Time– All Calls



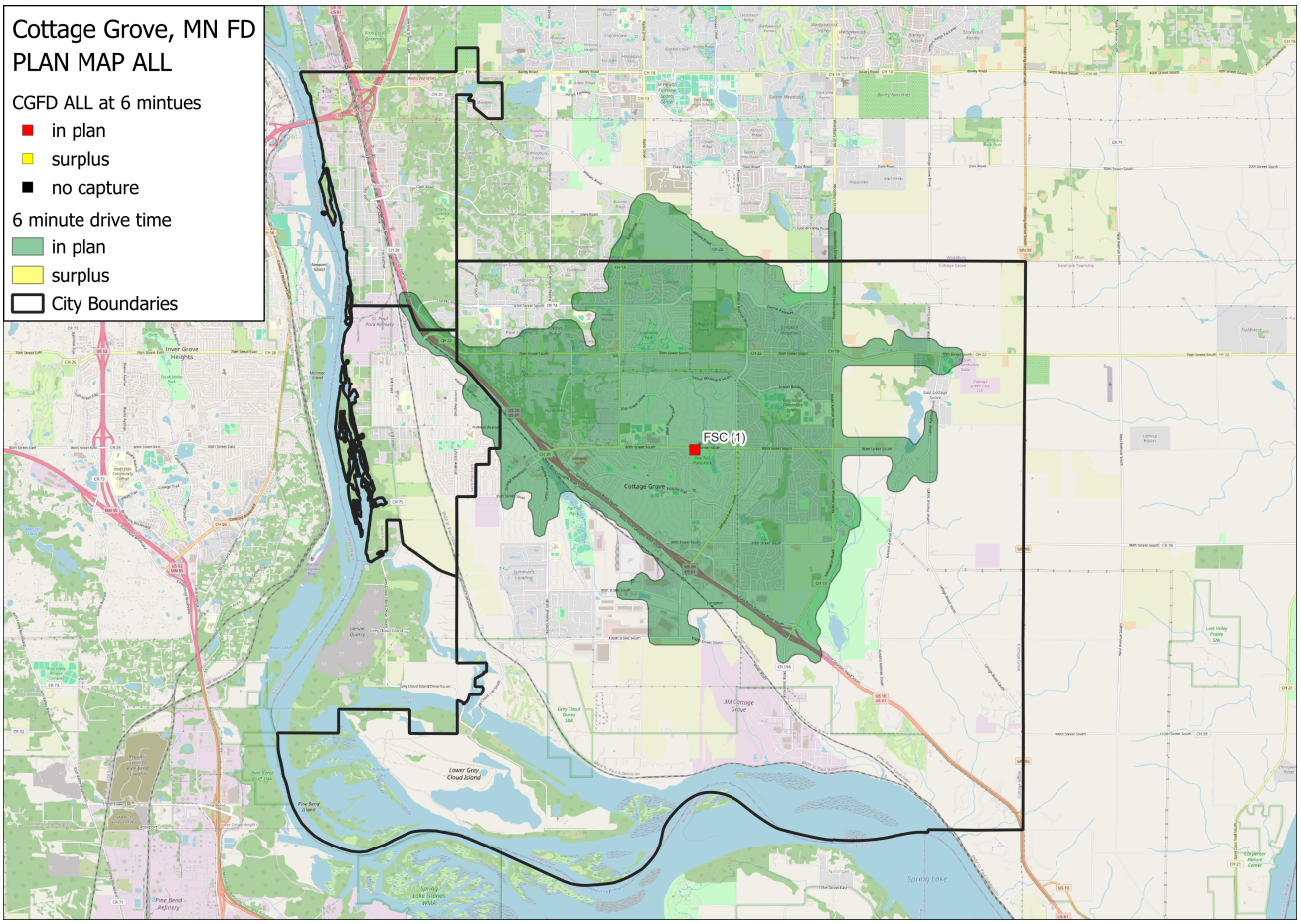
6-Minute Travel Time

Results suggest that with one CGFD station, 62.58% of calls can be responded to within 6 minutes or less travel time.

Table 13: Marginal Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	6	2,634	2634	62.58%

Figure 12: Current CGFD Station Bleed Map for 6-Minute Travel Time– All Calls



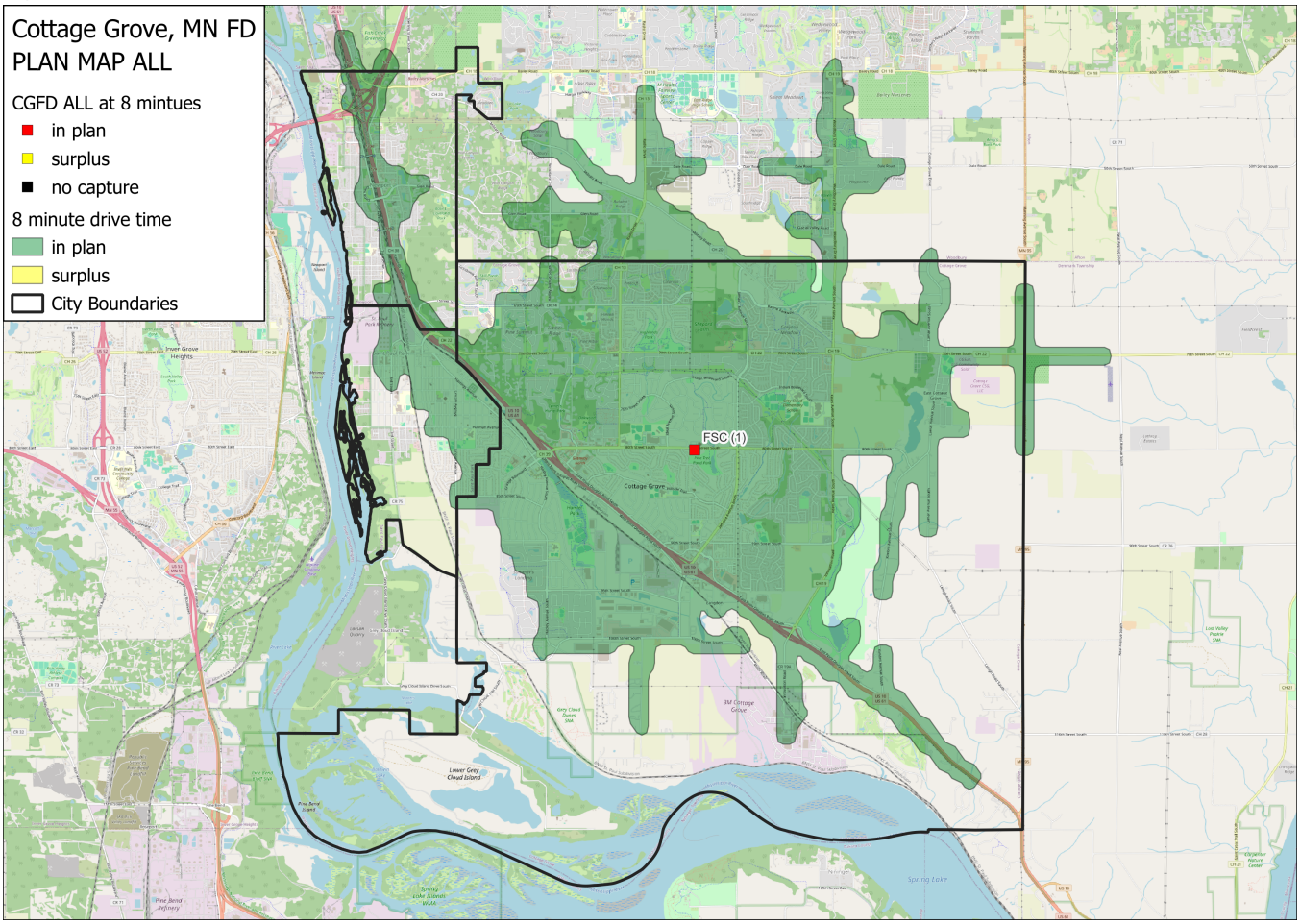
8-Minute Travel Time

Results suggest that with one CGFD station, 85.06% of calls can be responded to within 8 minutes or less travel time.

Table 14: Marginal Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	8	3,580	3,580	85.06%

Figure 13: Current CGFD Station Bleed Map for 8-Minute Travel Time– All Calls



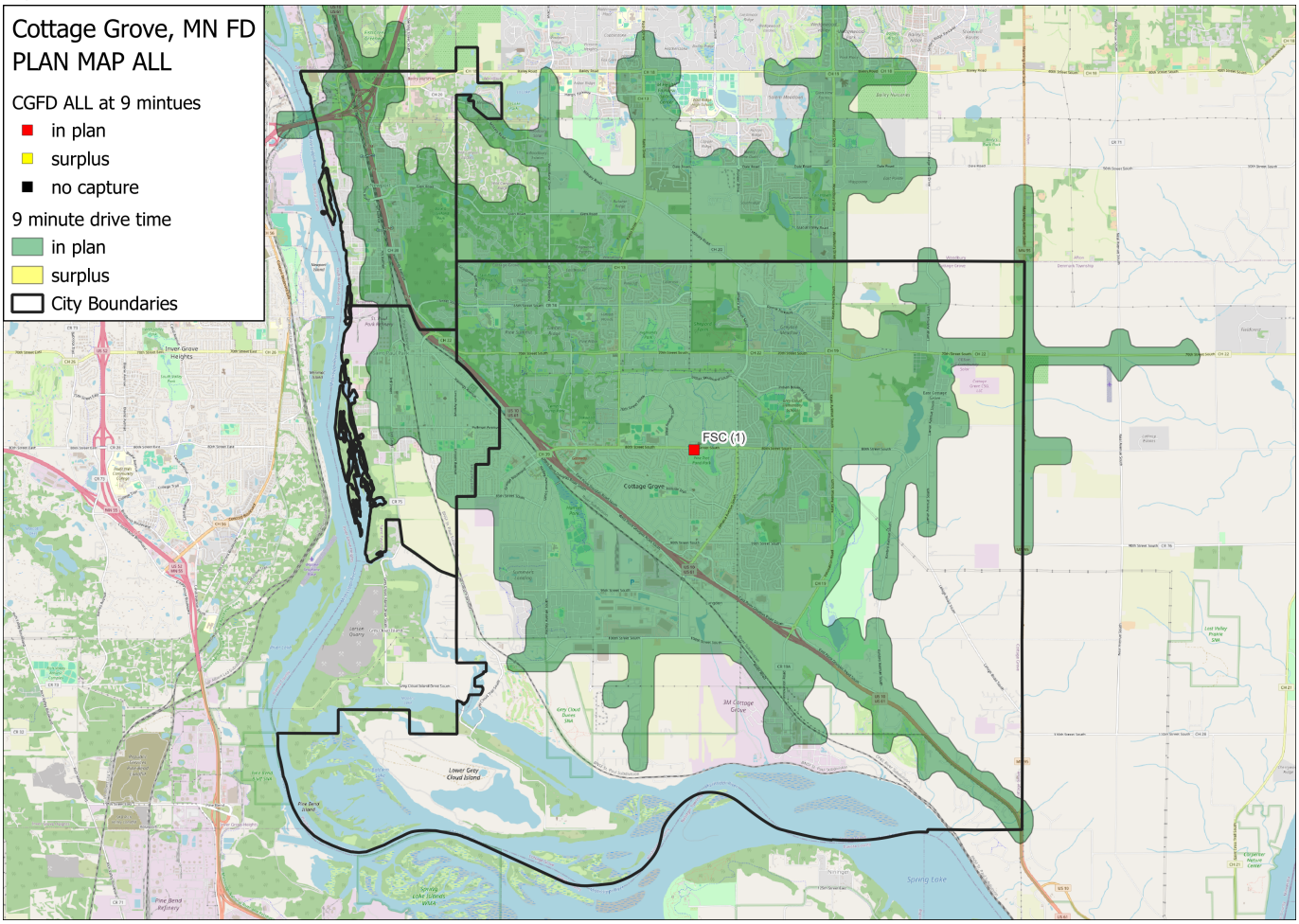
9-Minute Travel Time

Results suggest that with one CGFD station, 93.35% of calls can be responded to within 9 minutes or less travel time.

Table 15: Marginal Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	9	3,929	3,929	93.35%

Figure 14: Current CGFD Station Bleed Map for 9-Minute Travel Time– All Calls



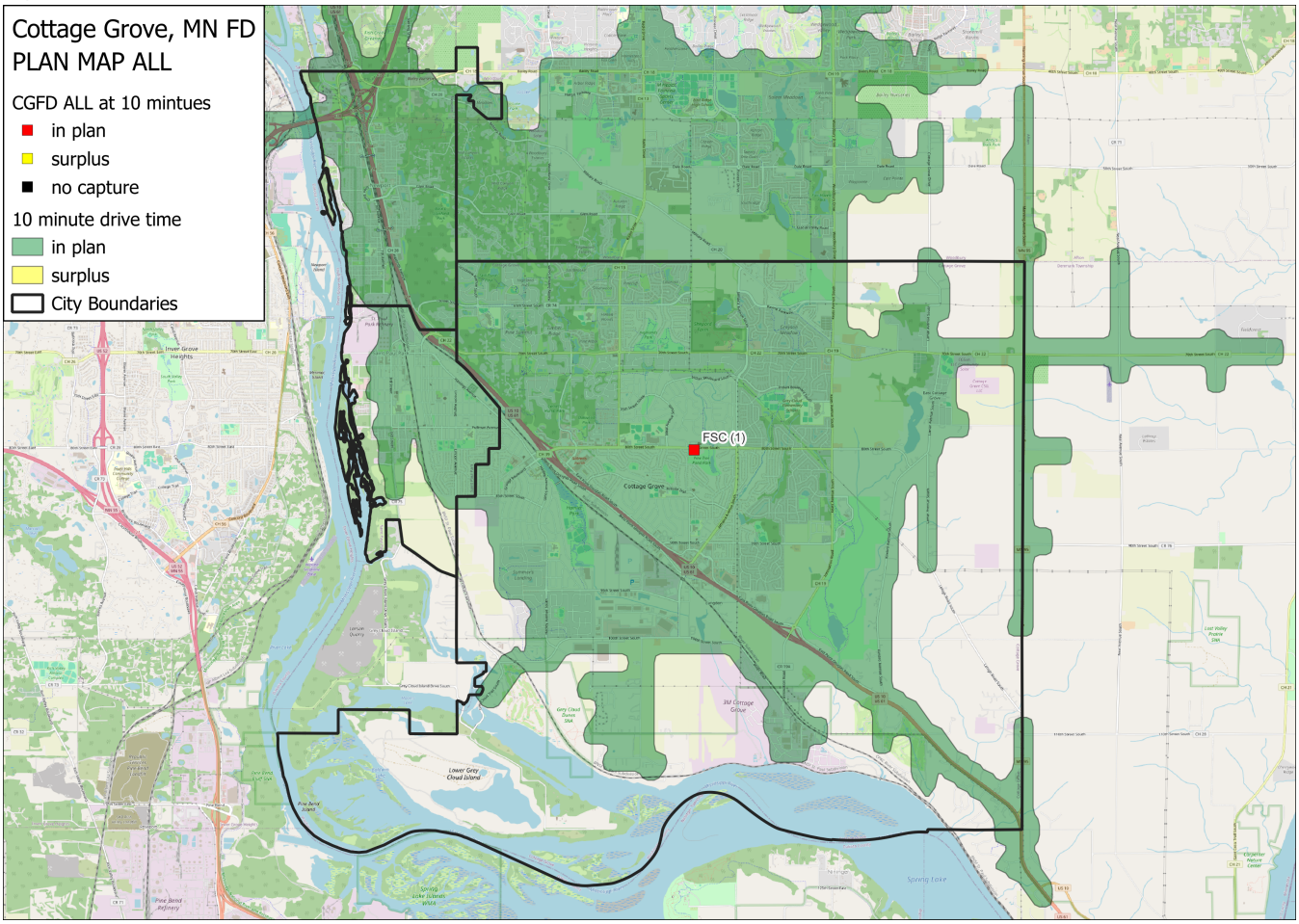
10-Minute Travel Time

Results suggest that with one CGFD station, 95.7% of calls can be responded to within 10 minutes or less travel time.

Table 16: Marginal Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	10	4,028	4,028	95.70%

Figure 15: Current CGFD Station Bleed Map for 10-Minute Travel Time– All Calls



All Jurisdictions – FSC and Station 4 Location - All Calls

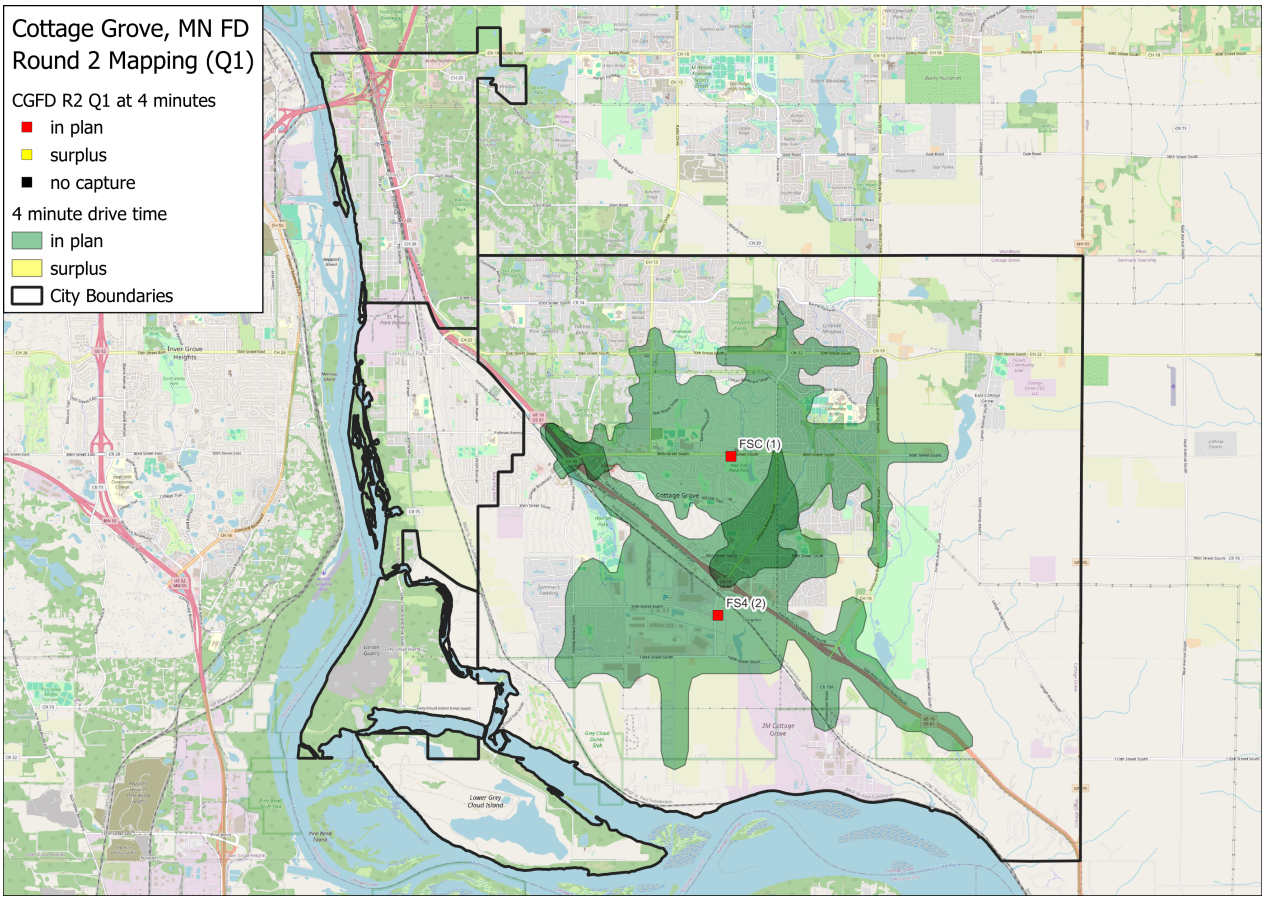
4-Minute Travel Time

Results suggest that with two stations, 42.24% of calls can be responded to within 4 minutes or less travel time.

Table 17: Marginal Fire Station Contribution for 4-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	4	1,289	1,289	30.62%
2	FS4	4	489	1,778	42.24%

Figure 16: Current CGFD Station Bleed Map for 4-Minute Travel Time– All Calls



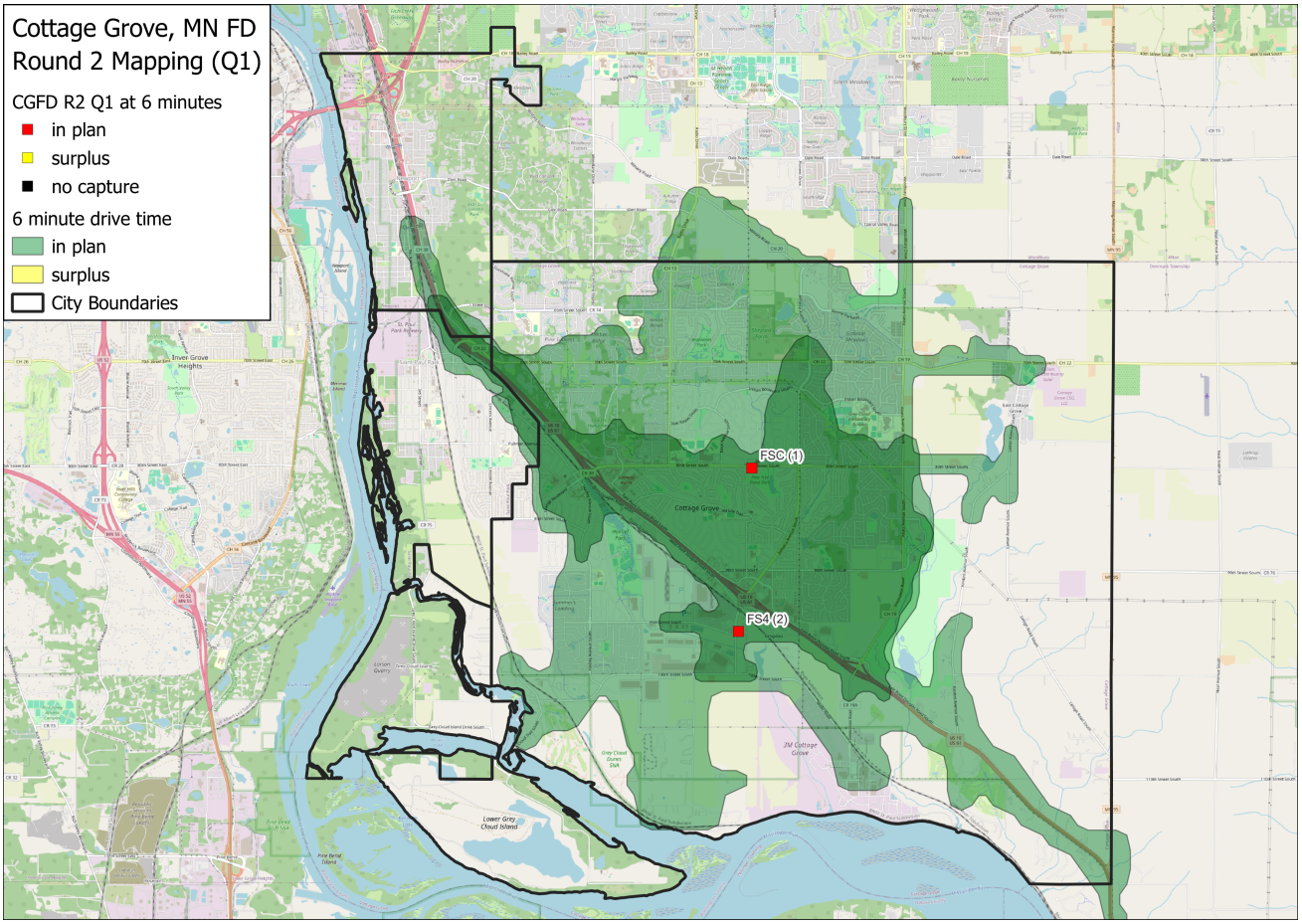
6-Minute Travel Time

Results suggest that with two stations, 71.63% of calls can be responded to within 6 minutes or less travel time.

Table 18: Marginal Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	6	2,665	2,665	63.32%
2	FS4	6	350	3,015	71.63%

Figure 17: Current CGFD Station Bleed Map for 6-Minute Travel Time– All Calls



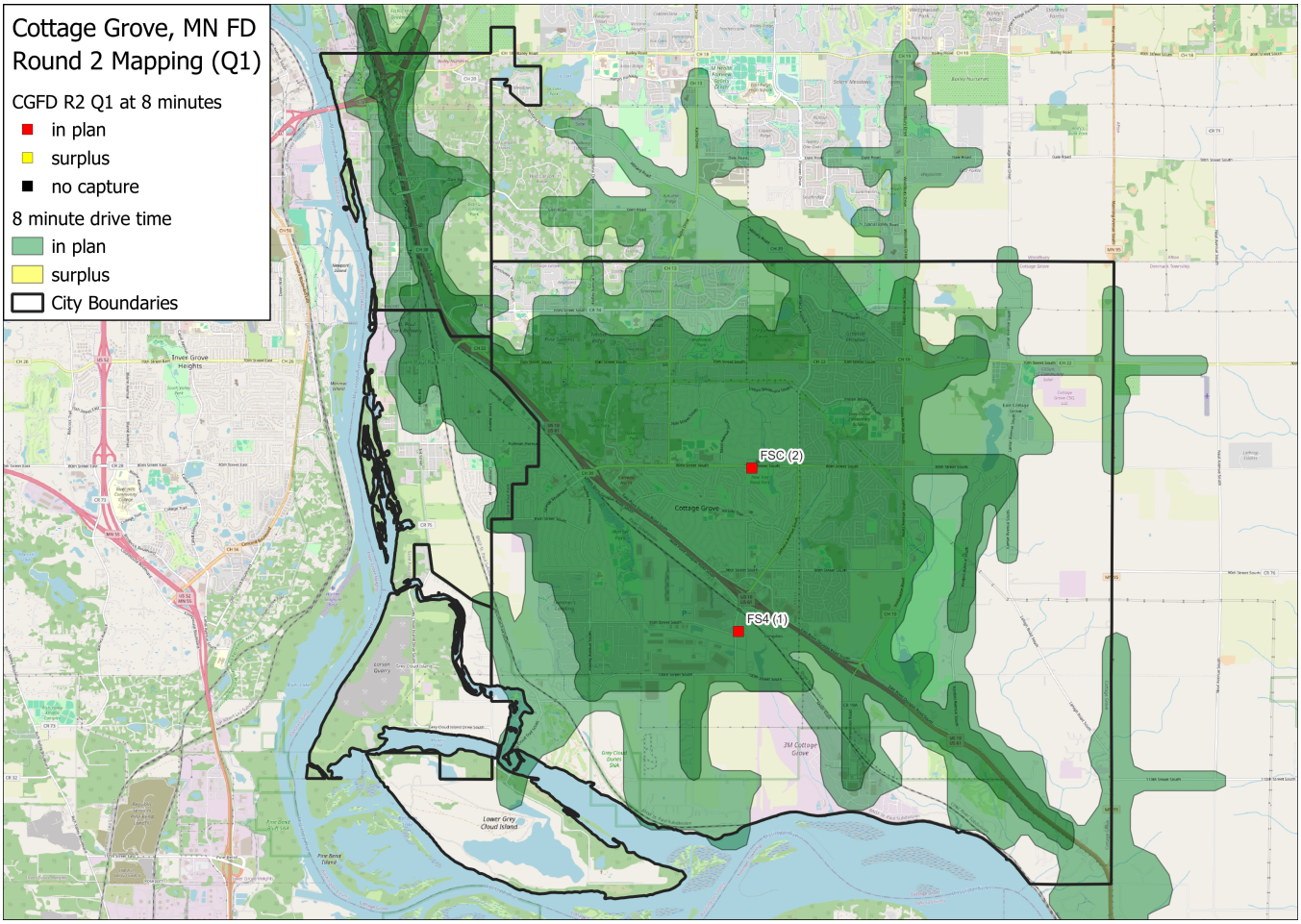
8-Minute Travel Time

Results suggest that two stations, 92.3% of calls can be responded to within 8 minutes or less travel time.

Table 19: Marginal Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FS4	8	3,708	3,708	88.10%
2	FSC	8	177	3,885	92.30%

Figure 18: Current CGFD Station Bleed Map for 8-Minute Travel Time– All Calls



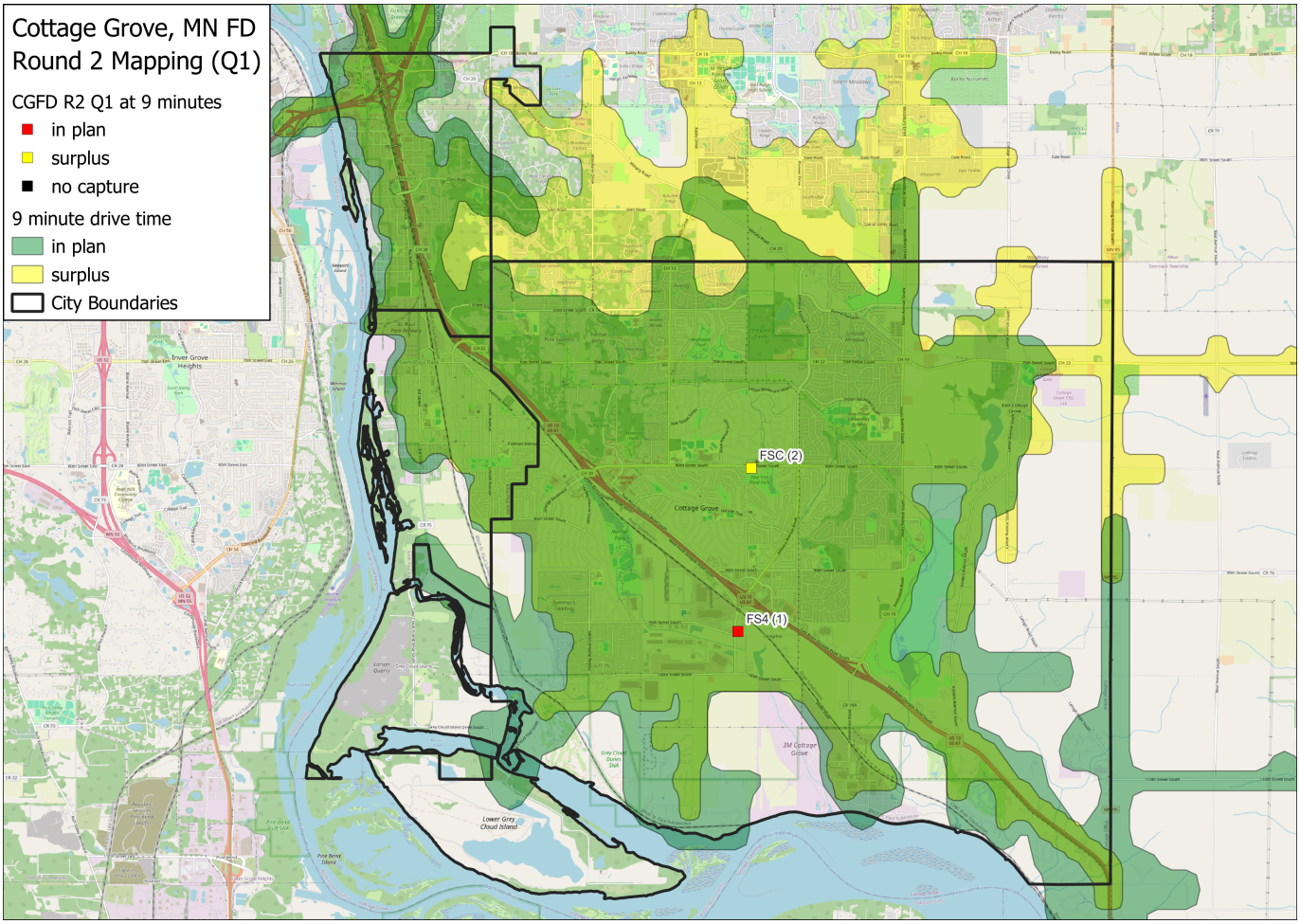
9-Minute Travel Time

Results suggest that two stations, 97.93% of calls can be responded to within 9 minutes or less travel time.

Table 20: Marginal Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FS4	9	4,046	4,046	96.13%
2	FSC	9	76	4,122	97.93%

Figure 19: Current CGFD Station Bleed Map for 9-Minute Travel Time– All Calls



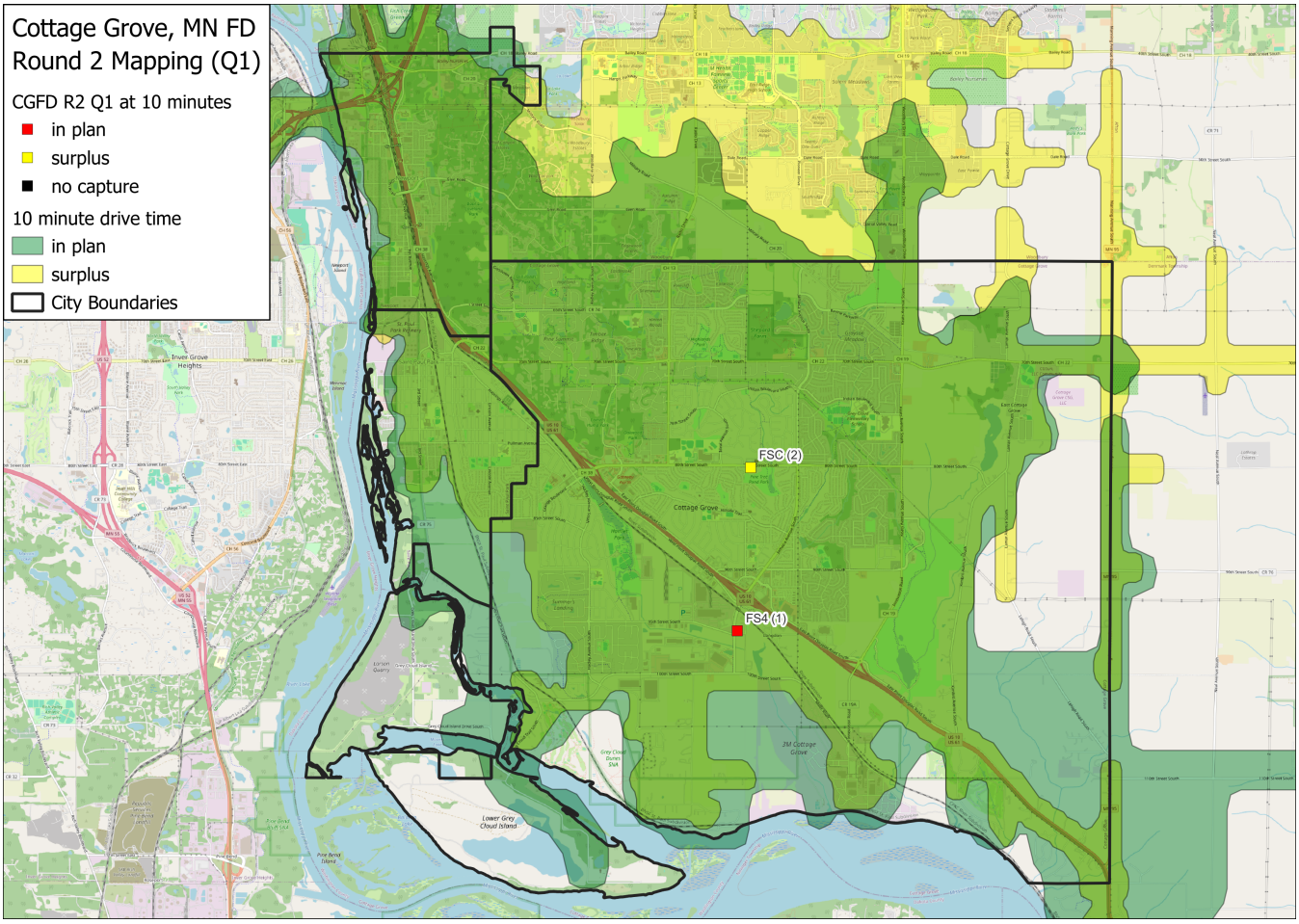
10-Minute Travel Time

Results suggest that two stations, 99.1% of calls can be responded to within 10 minutes or less travel time.

Table 21: Marginal Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FS4	10	4,166	4,166	98.98%
2	FSC	10	5	4,171	99.10%

Figure 20: Current CGFD Station Bleed Map for 10-Minute Travel Time– All Calls



All Jurisdictions – FSC and New Second Station Location - All Calls

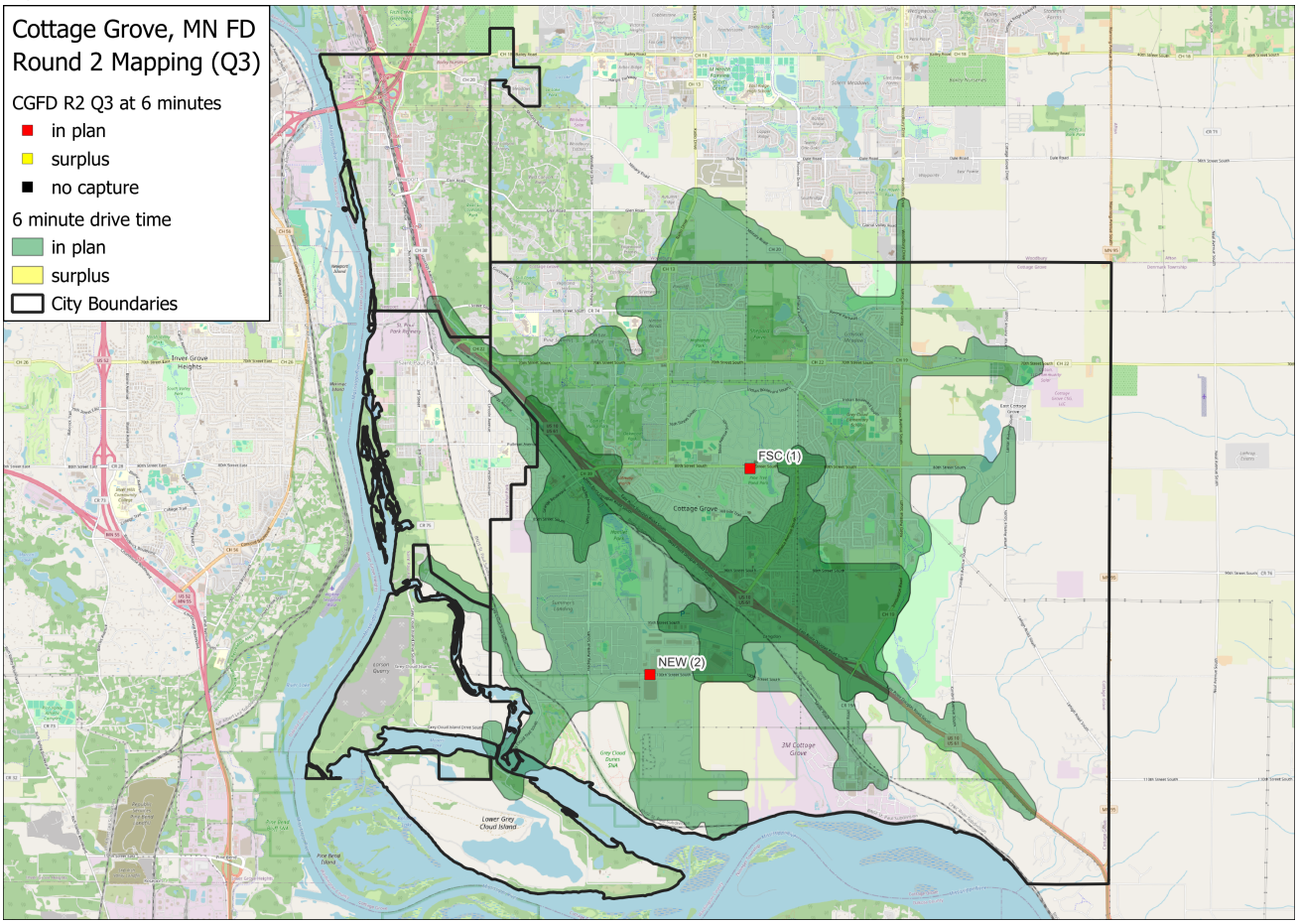
6-Minute Travel Time

Results suggest that with two stations, 72.25% of calls can be responded to within 6 minutes or less travel time.

Table 22: Marginal Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	6	2,665	2,665	63.32%
2	NEW	6	376	3,041	72.25%

Figure 21: Current CGFD Station Bleed Map for 6-Minute Travel Time– All Calls



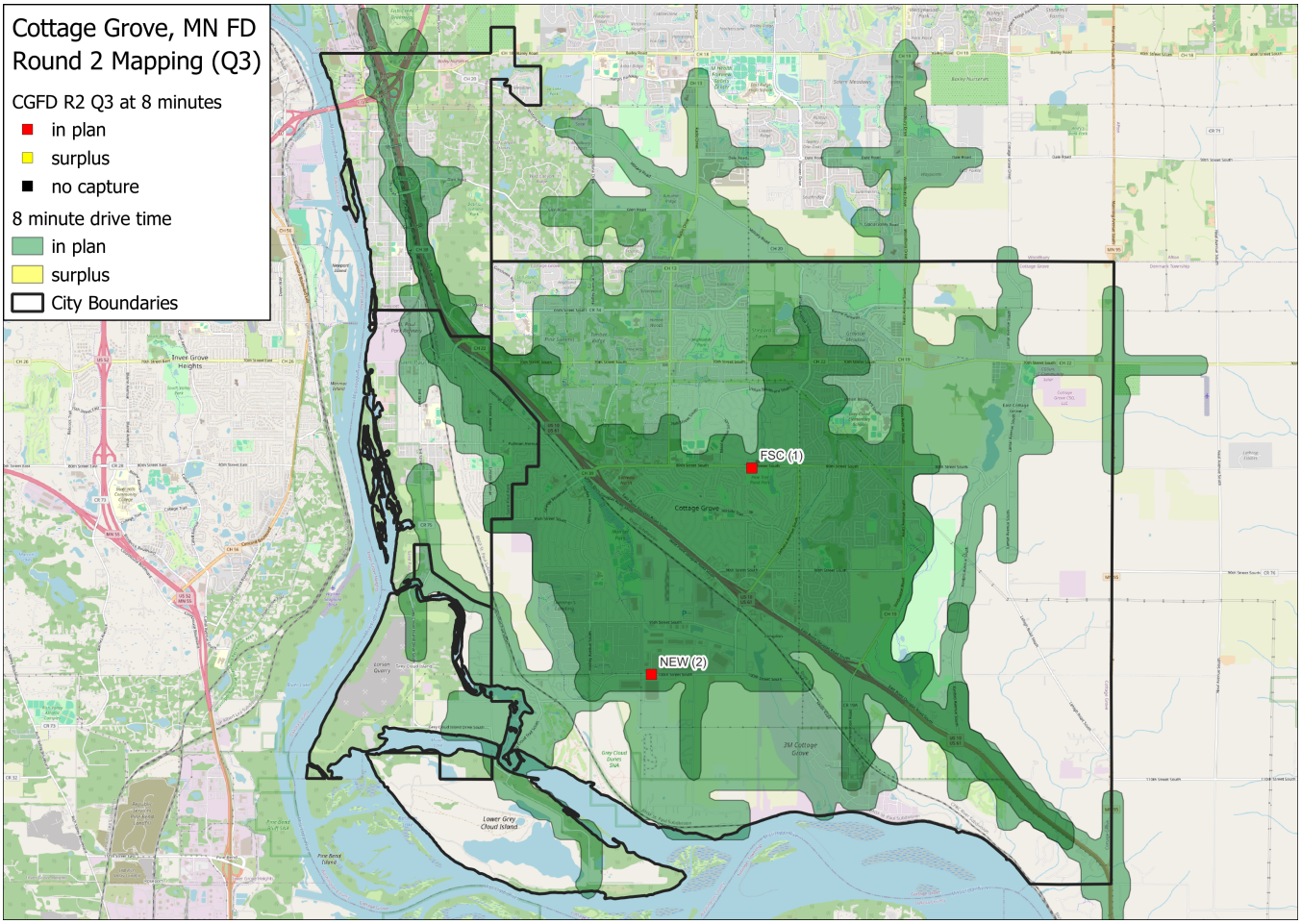
8-Minute Travel Time

Results suggest that two stations, 90.85% of calls can be responded to within 8 minutes or less travel time.

Table 23: Marginal Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	8	3,621	3,621	86.03%
2	NEW	8	203	3,824	90.85%

Figure 22: Current CGFD Station Bleed Map for 8-Minute Travel Time– All Calls



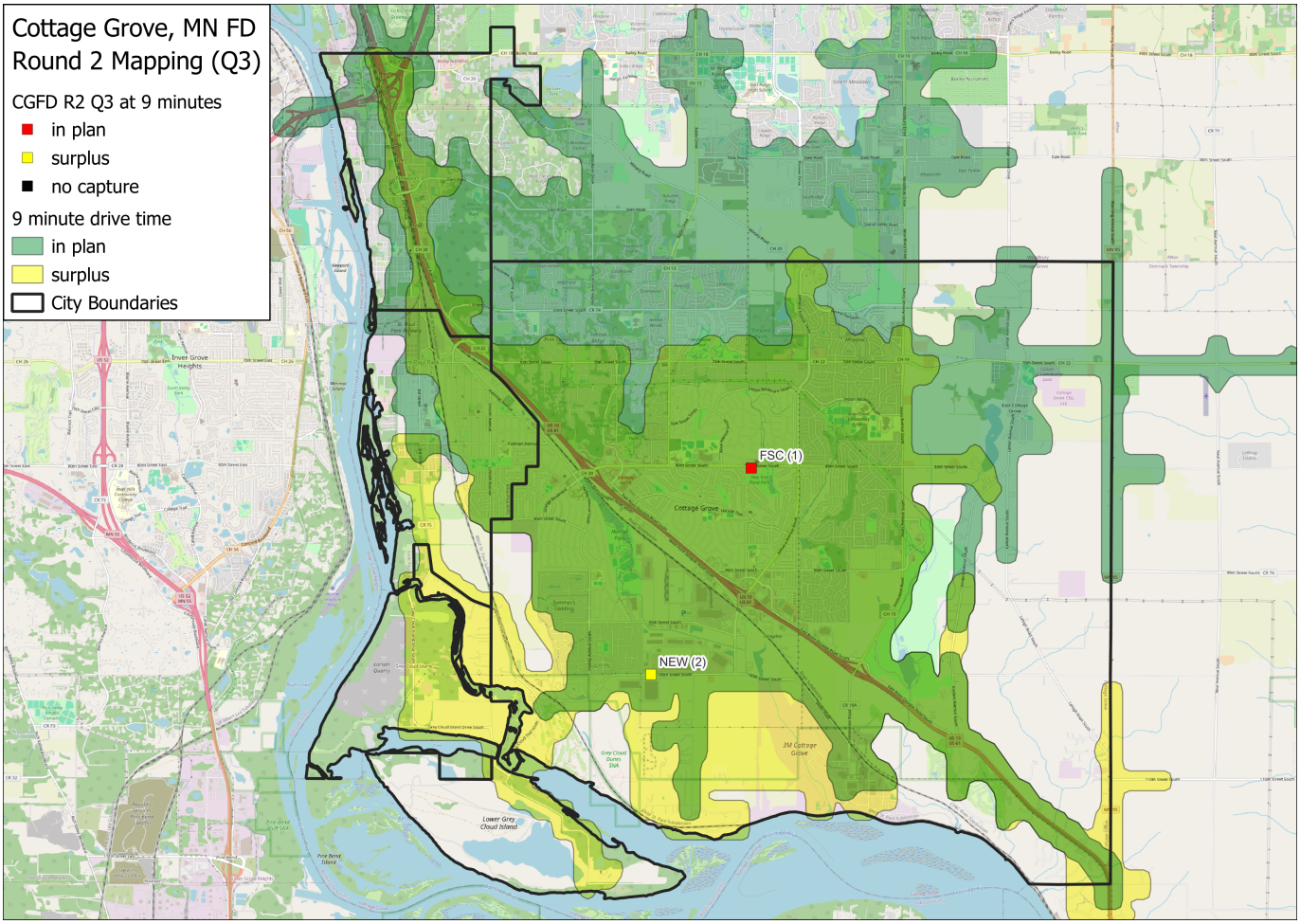
9-Minute Travel Time

Results suggest that two stations, 97.01% of calls can be responded to within 9 minutes or less travel time.

Table 24: Marginal Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	9	3,925	3,925	93.25%
2	NEW	9	158	4,083	97.01%

Figure 23: Current CGFD Station Bleed Map for 9-Minute Travel Time– All Calls



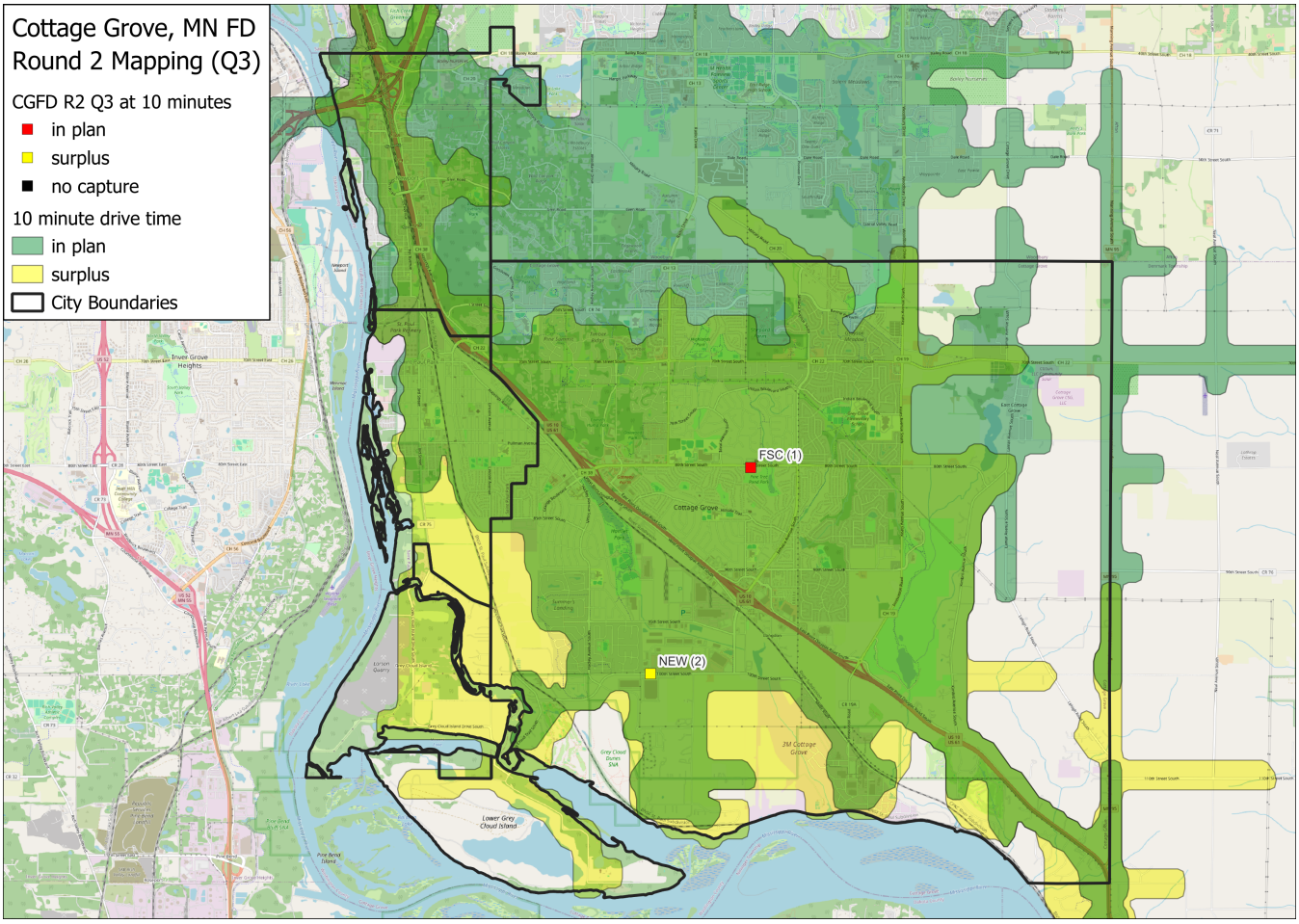
10-Minute Travel Time

Results suggest that two stations, 98.79% of calls can be responded to within 10 minutes or less travel time.

Table 25: Marginal Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	10	4,027	4,027	95.68%
2	NEW	10	131	4,158	98.79%

Figure 24: Current CGFD Station Bleed Map for 10-Minute Travel Time– All Calls



All Jurisdictions – Regional Stations - All Calls

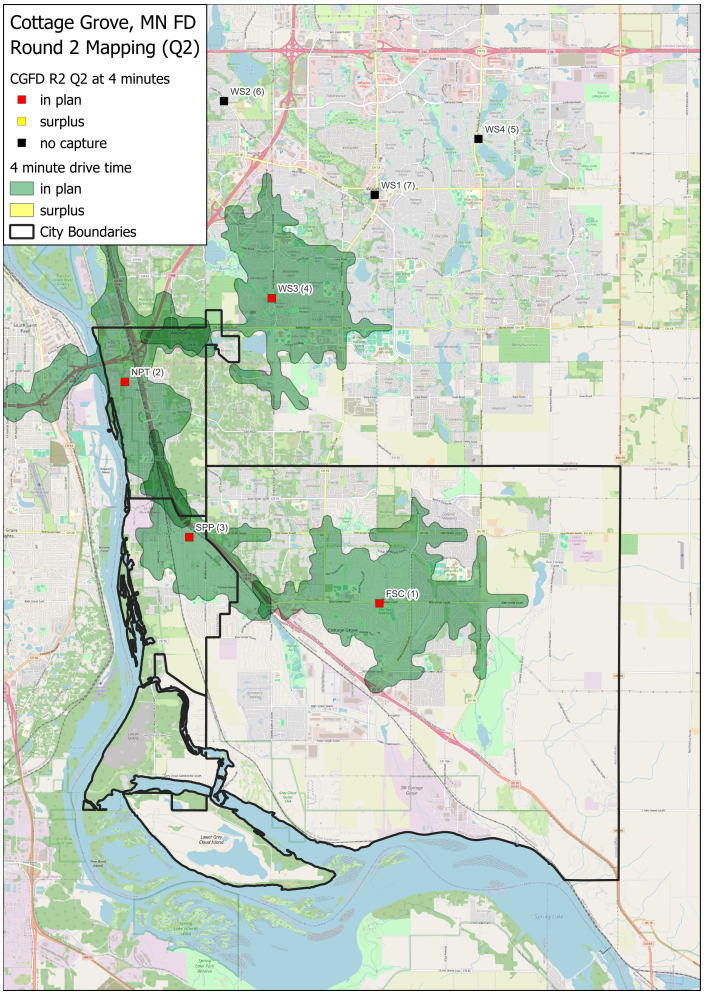
4-Minute Travel Time

Results suggest that three staffed stations could cover 49.47% of calls within 4 minutes or less travel time.

Table 26: Marginal Fire Station Contribution for 4-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	4	1,289	1,289	30.62%
2	NPT	4	462	1,751	41.60%
3	SPP	4	331	2,082	49.47%
4	WS3	4	1	2,083	49.49%
5	WS4	4	0	2,083	49.49%
6	WS2	4	0	2,083	49.49%
7	WS1	4	0	2,083	49.49%

Figure 25: Current CGFD Station Bleed Map for 4-Minute Travel Time– All Calls



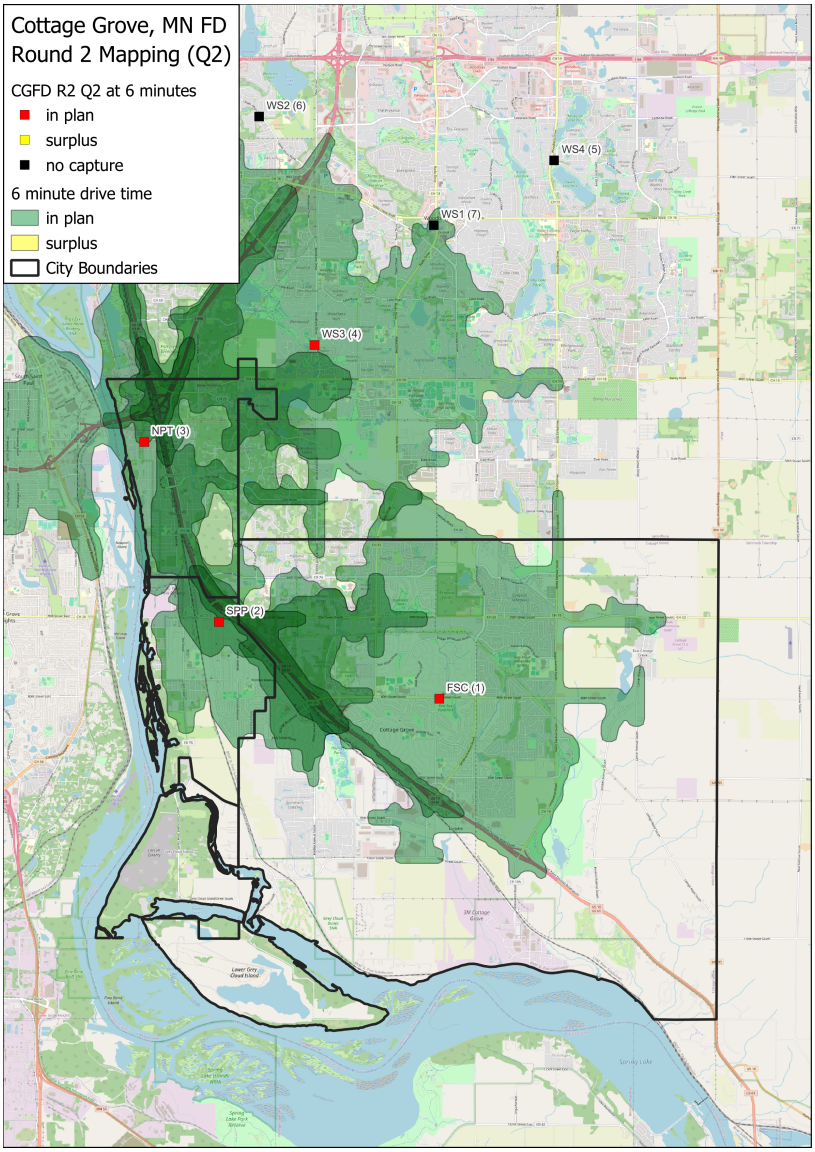
6-Minute Travel Time

Results suggest three stations could cover 86.43% of calls within 6 minutes or less travel time.

Table 27: Marginal Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	6	2,665	2,665	63.32%
2	SPP	6	805	3,470	82.44%
3	NPT	6	168	3,638	86.43%
4	WS3	6	2	3,640	86.48%
5	WS4	6	0	3,640	86.48%
6	WS2	6	0	3,640	86.48%
7	WS1	6	0	3,640	86.48%

Figure 26: Current CGFD Station Bleed Map for 6-Minute Travel Time– All Calls



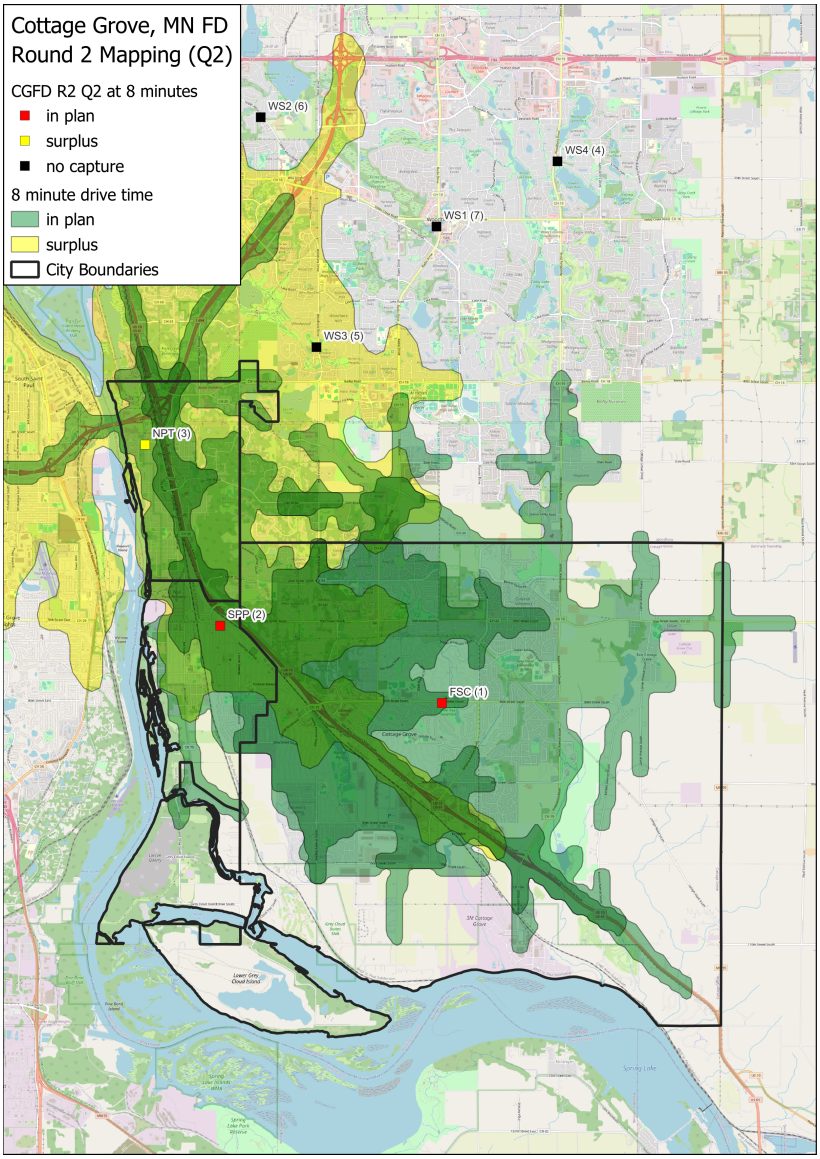
8-Minute Travel Time

Results suggest three stations could cover 95.34% of calls within 8 minutes or less travel time.

Table 28: Marginal Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	8	3,621	3,621	86.03%
2	SPP	8	372	3,993	94.87%
3	NPT	8	20	4,013	95.34%
4	WS4	8	0	4,013	95.34%
5	WS3	8	0	4,013	95.34%
6	WS2	8	0	4,013	95.34%
7	WS1	8	0	4,013	95.34%

Figure 27: Current CGFD Station Bleed Map for 8-Minute Travel Time– All Calls



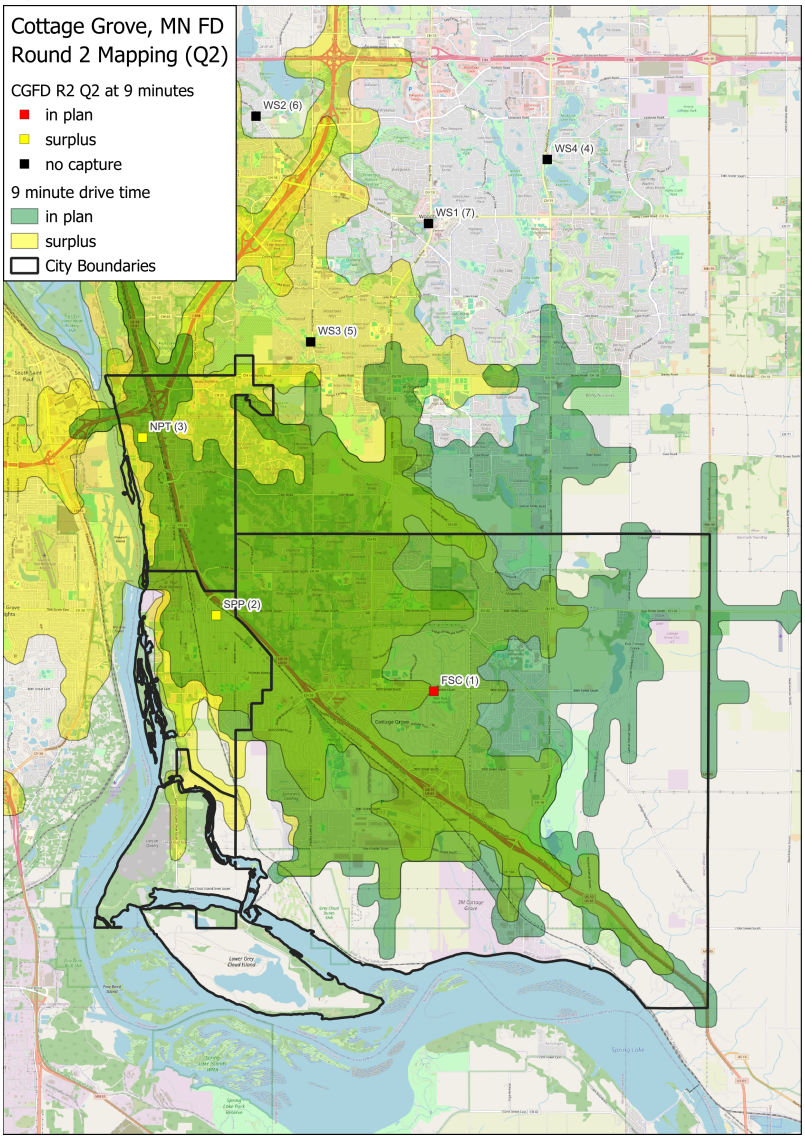
9-Minute Travel Time

Results suggest two stations could cover 96.22% of calls within 9 minutes or less travel time.

Table 29: Marginal Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	9	3,925	3,925	93.25%
2	SPP	9	125	4,050	96.22%
3	NPT	9	6	4,056	96.36%
4	WS4	9	0	4,056	96.36%
5	WS3	9	0	4,056	96.36%
6	WS2	9	0	4,056	96.36%
7	WS1	9	0	4,056	96.36%

Figure 28: Current CGFD Station Bleed Map for 9-Minute Travel Time– All Calls



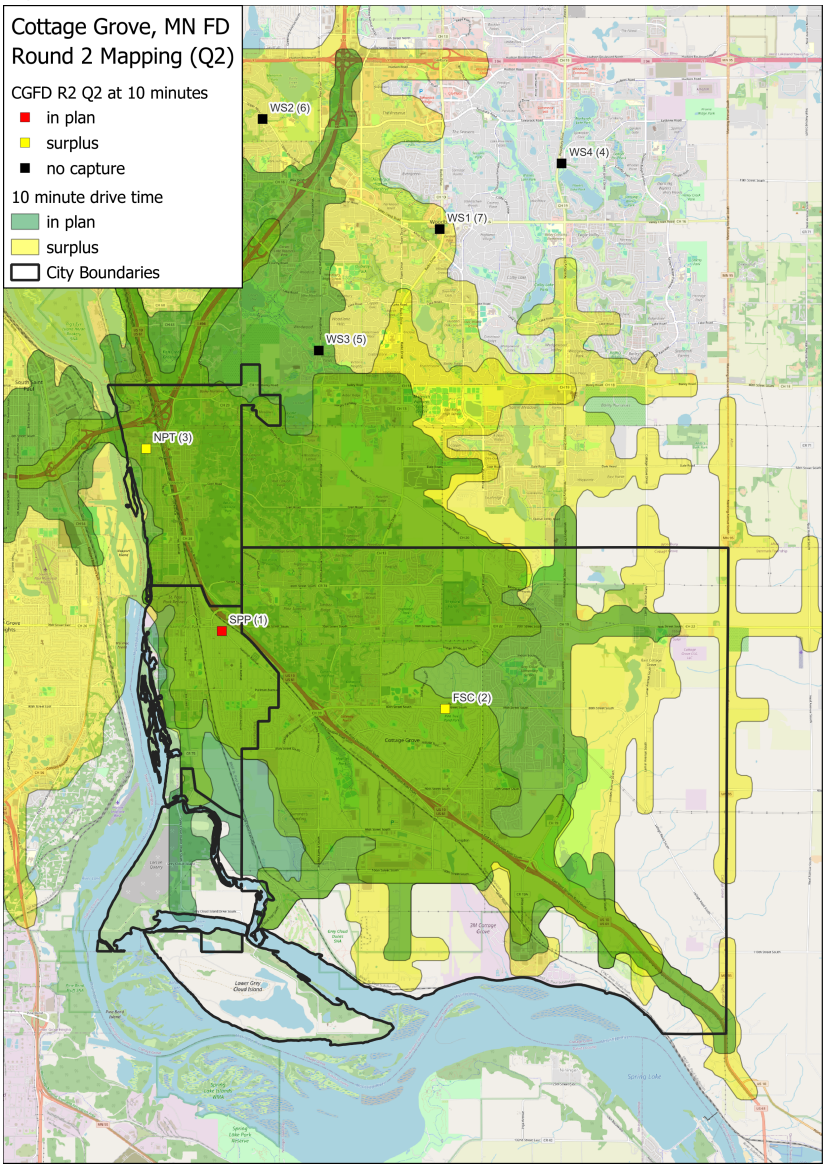
10-Minute Travel Time

Results suggest two stations could cover 97.36% of calls within 10 minutes or less travel time.

Table 30: Marginal Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	SPP	10	4,063	4,063	96.53%
2	FSC	10	35	4,098	97.36%
3	NPT	10	1	4,099	97.39%
4	WS4	10	0	4,099	97.39%
5	WS3	10	0	4,099	97.39%
6	WS2	10	0	4,099	97.39%
7	WS1	10	0	4,099	97.39%

Figure 29: Current CGFD Station Bleed Map for 10-Minute Travel Time– All Calls



All Jurisdictions – Regional Stations - All Calls – Testing Newport

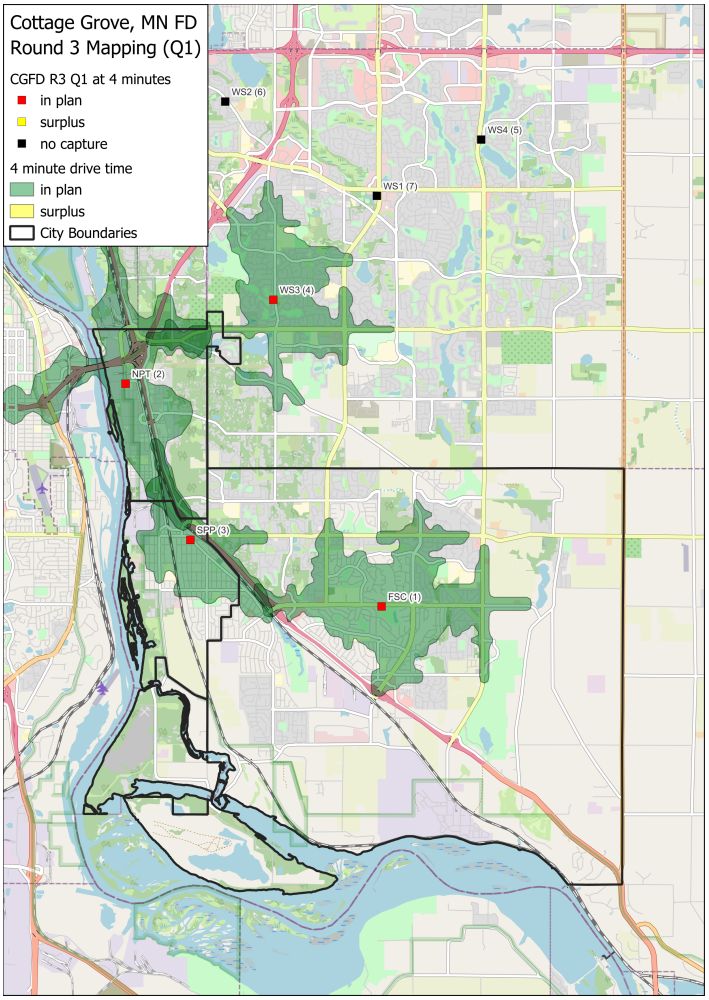
4-Minute Travel Time

Results suggest that three staffed stations could cover 48.54% of calls within 4 minutes or less travel time.

Table 31: Marginal Fire Station Contribution for 4-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	4	1,218	1,218	28.94%
2	NPT	4	460	1,678	39.87%
3	SPP	4	364	2,042	48.52%
4	WS3	4	1	2,043	48.54%
5	WS4	4	0	2,043	48.54%
6	WS2	4	0	2,043	48.54%
7	WS1	4	0	2,043	48.54%

Figure 30: Current CGFD Station Bleed Map for 4-Minute Travel Time– All Calls



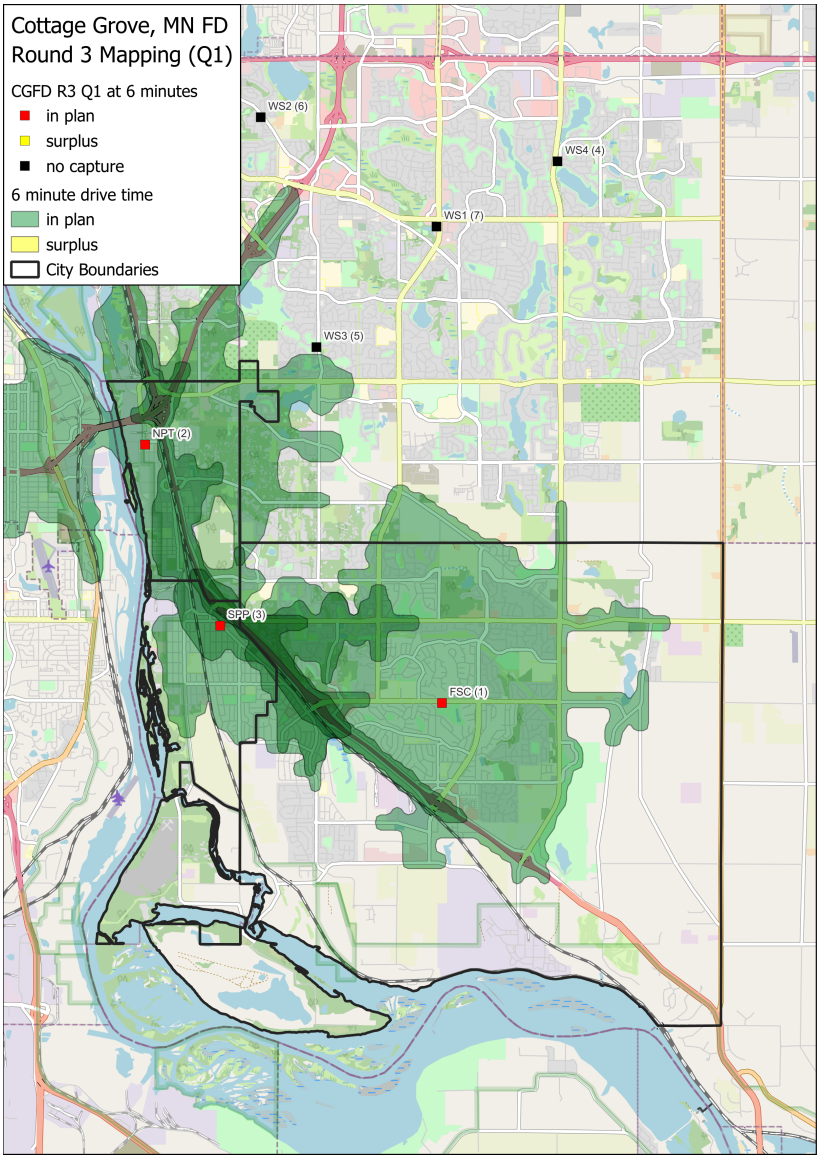
6-Minute Travel Time

Results suggest three stations could cover 86.39% of calls within 6 minutes or less travel time.

Table 32: Marginal Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	6	2,632	2,632	62.53%
2	NPT	6	611	3,243	77.05%
3	SPP	6	393	3,636	86.39%
4	WS4	6	0	3,636	86.39%
5	WS3	6	0	3,636	86.39%
6	WS2	6	0	3,636	86.39%
7	WS1	6	0	3,636	86.39%

Figure 31: Current CGFD Station Bleed Map for 6-Minute Travel Time– All Calls



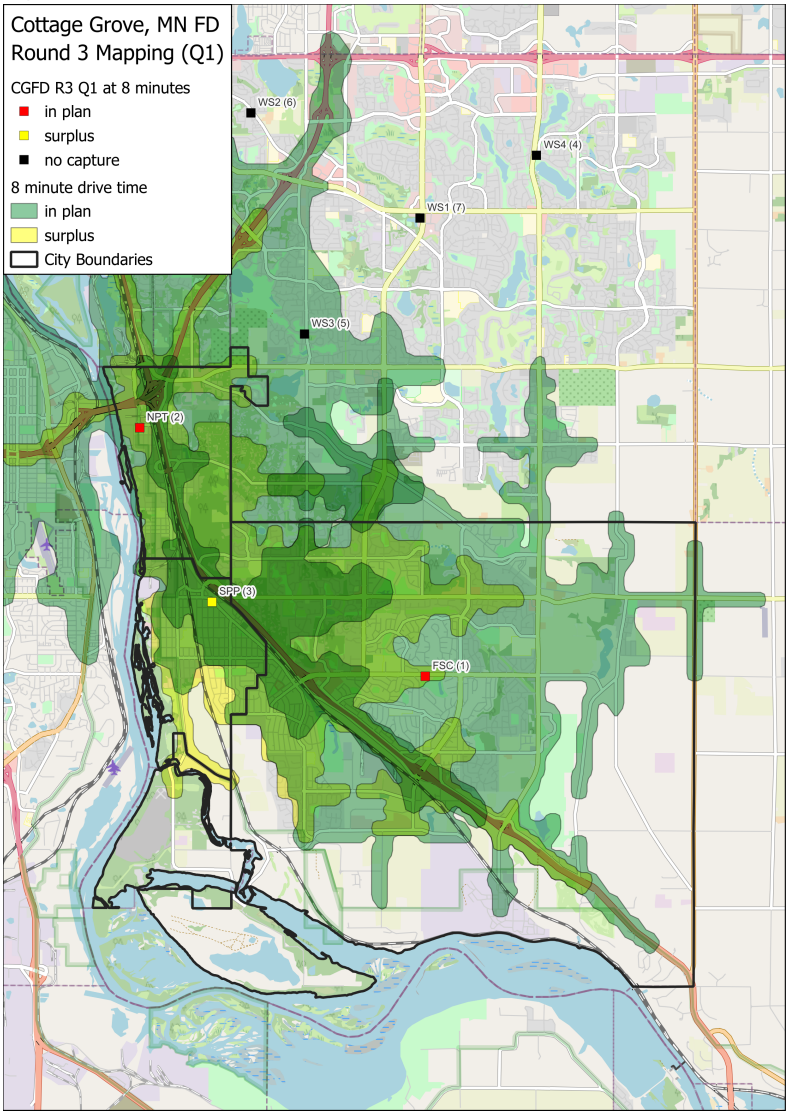
8-Minute Travel Time

Results suggest three stations could cover 94.87% of calls within 8 minutes or less travel time. Two stations can cover 93.35% of the incidents within 8 minutes travel time or less.

Table 33: Marginal Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	8	3,598	3,598	85.48%
2	NPT	8	331	3,929	93.35%
3	SPP	8	64	3,993	94.87%
4	WS4	8	0	3,993	94.87%
5	WS3	8	0	3,993	94.87%
6	WS2	8	0	3,993	94.87%
7	WS1	8	0	3,993	94.87%

Figure 32: Current CGFD Station Bleed Map for 8-Minute Travel Time– All Calls



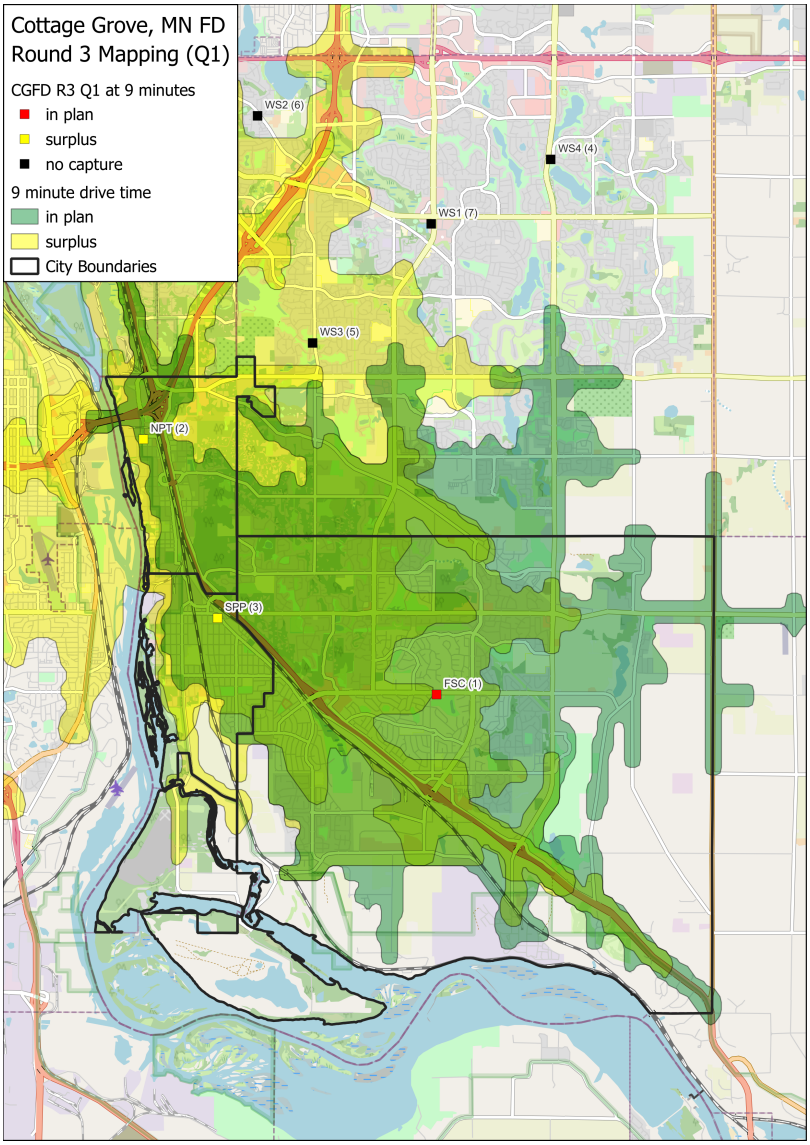
9-Minute Travel Time

Results suggest two stations could cover 95.84% of calls within 9 minutes or less travel time.

Table 34: Marginal Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	9	3,929	3,929	93.35%
2	NPT	9	105	4,034	95.84%
3	SPP	9	14	4,048	96.17%
4	WS4	9	0	4,048	96.17%
5	WS3	9	0	4,048	96.17%
6	WS2	9	0	4,048	96.17%
7	WS1	9	0	4,048	96.17%

Figure 33: Current CGFD Station Bleed Map for 9-Minute Travel Time– All Calls



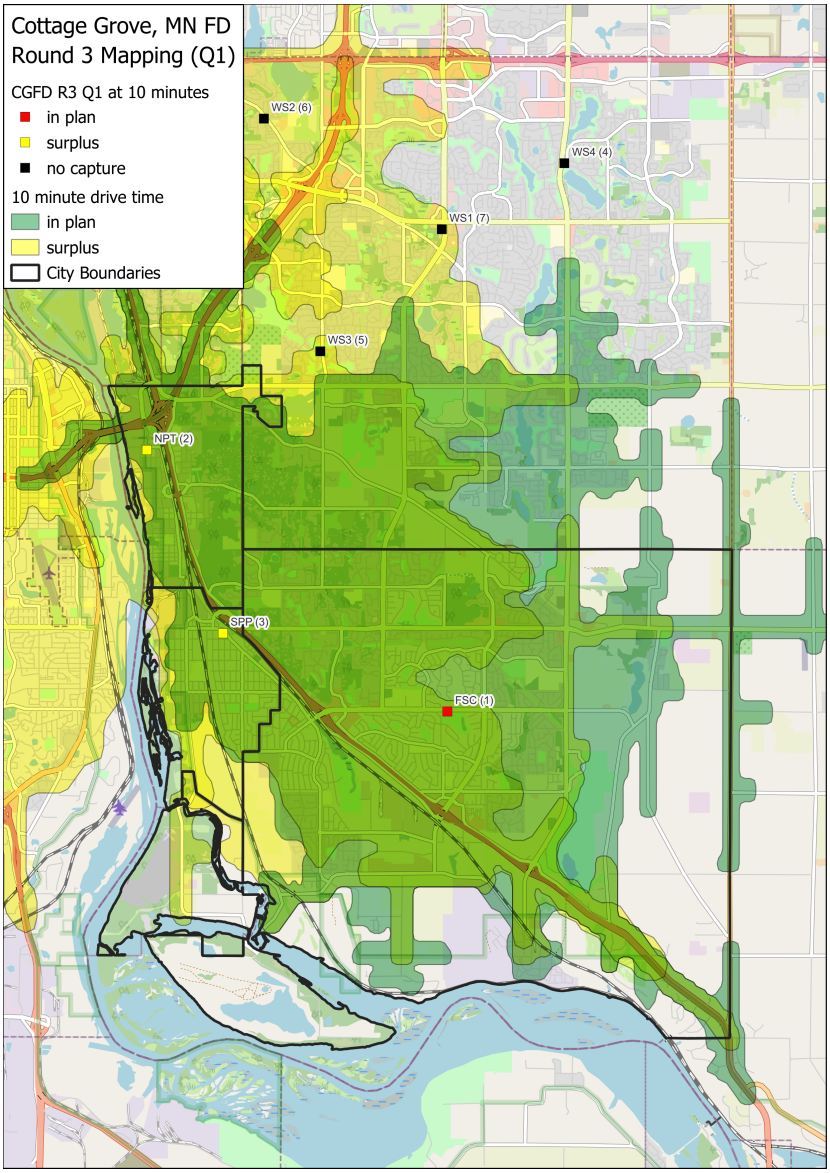
10-Minute Travel Time

Results suggest two stations could cover 94.58% of calls within 10 minutes or less travel time.

Table 35: Marginal Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	10	4,034	4,034	95.84%
2	NPT	10	31	4,065	96.58%
3	SPP	10	34	4,099	97.39%
4	WS4	10	0	4,099	97.39%
5	WS3	10	0	4,099	97.39%
6	WS2	10	0	4,099	97.39%
7	WS1	10	0	4,099	97.39%

Figure 34: Current CGFD Station Bleed Map for 10-Minute Travel Time– All Calls



Hybrid Station Analyses - All Calls – PID #1

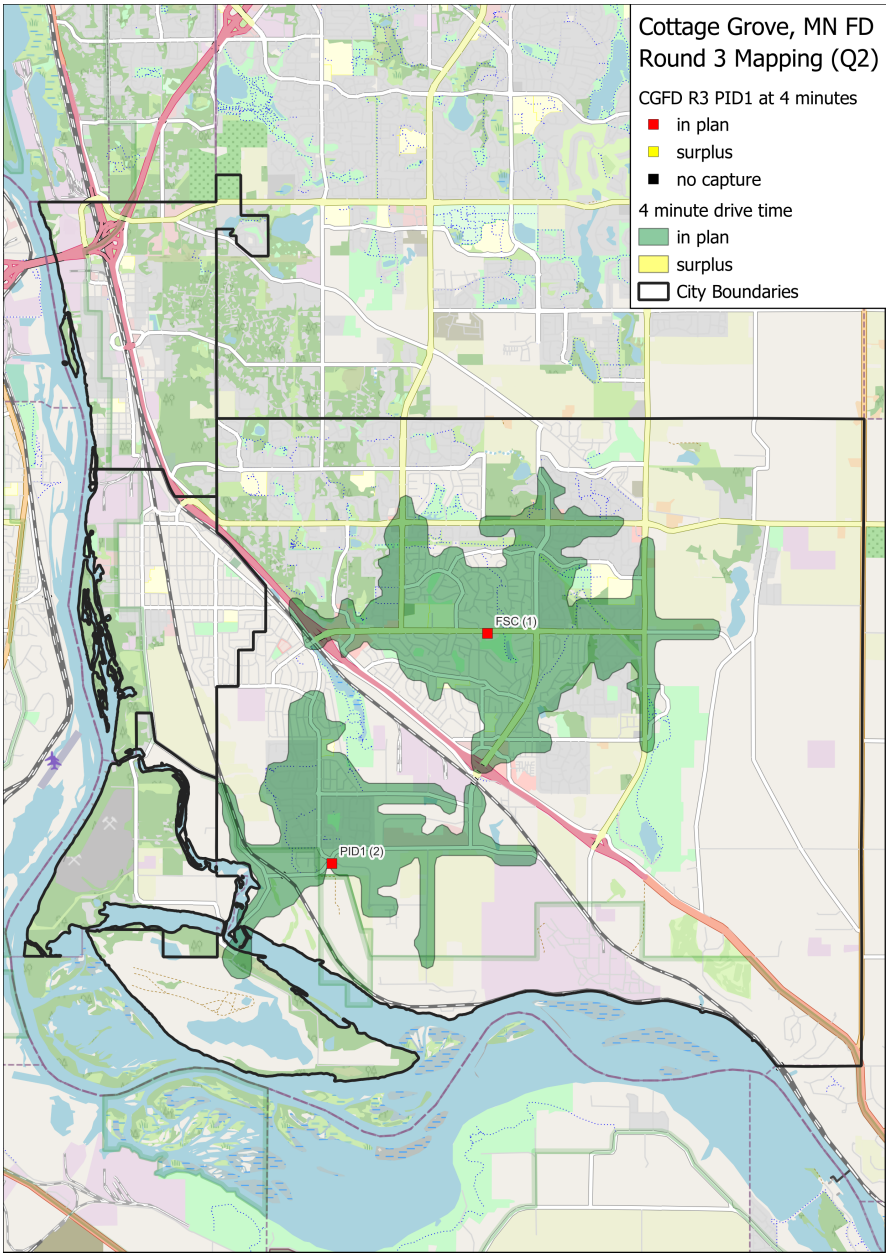
4-Minute Travel Time

Results suggest that two CGFD stations, 35.71% of calls can be responded to within 4 minutes or less travel time.

Table 36: Optimized Fire Station Contribution for 4-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	4	1,218	1,218	28.94%
2	PID1	4	285	1,503	35.71%

Figure 35: Optimized Stations Bleed Map for 4-Minute Travel Time– All Calls



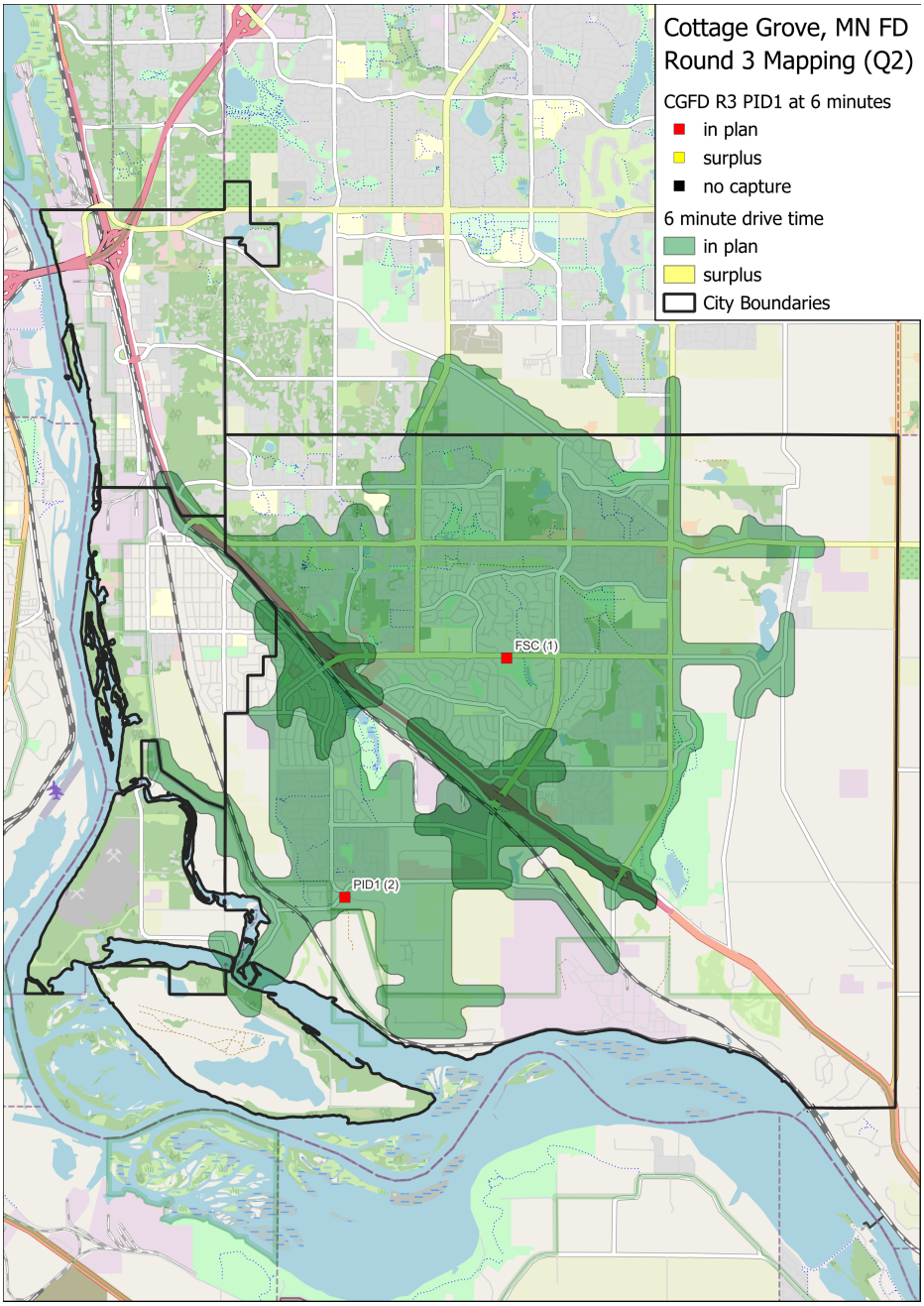
6-Minute Travel Time

Results suggest that with two stations, 70.54% of calls can be responded to within 6 minutes or less travel time.

Table 37: Optimized Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	6	2,632	2,632	62.53%
2	PID1	6	337	2,969	70.54%

Figure 36: Optimized Station Bleed Map for 6-Minute Travel Time– All Calls



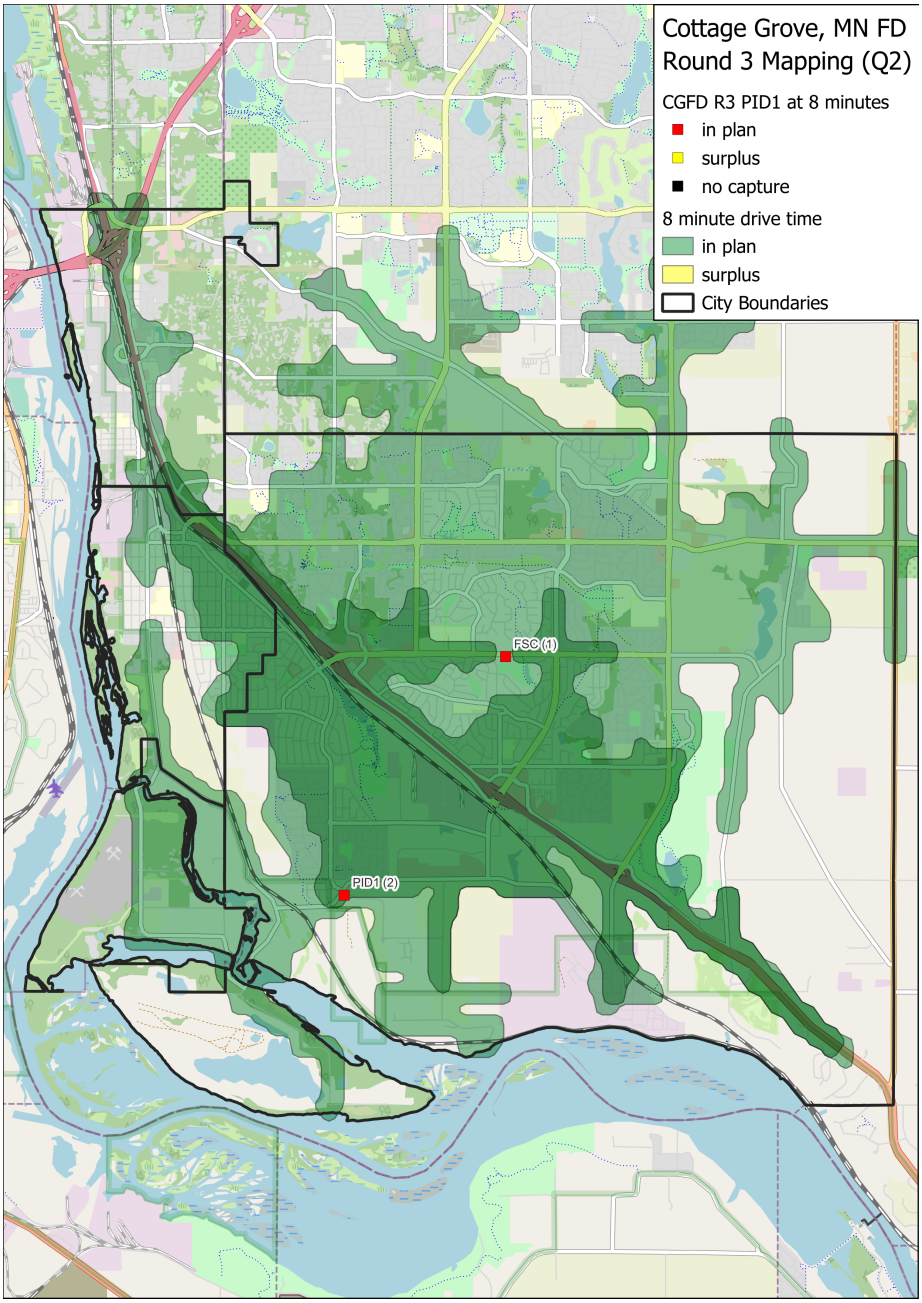
8-Minute Travel Time

Results suggest that with two stations, 90.78% of calls can be responded to within 8 minutes or less travel time.

Table 38: Optimized Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	8	3,598	3,598	85.48%
2	PID1	8	223	3,821	90.78%

Figure 37: Optimized Station Bleed Map for 8-Minute Travel Time– All Calls



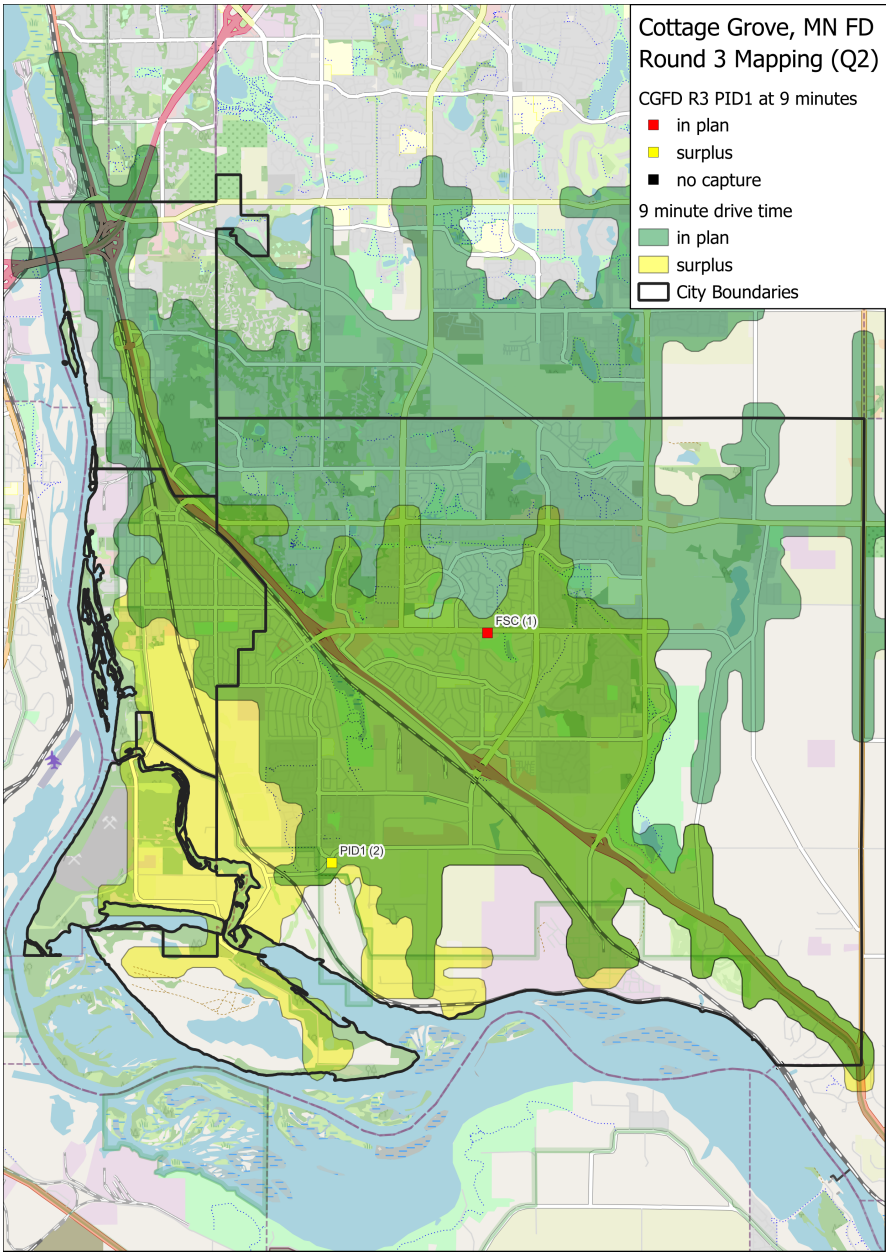
9-Minute Travel Time

Results suggest that with two stations, 96.89% of calls can be responded to within 9 minutes or less travel time.

Table 39: Optimized Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	9	3,929	3,929	93.35%
2	PID1	9	149	4,078	96.89%

Figure 38: Optimized Station Bleed Map for 9-Minute Travel Time– All Calls



10-Minute Travel Time

Results suggest that with two stations, 98.67% of calls can be responded to within 10 minutes or less travel time.

Table 40: Optimized Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	10	4,034	4,034	95.84%
2	PID1	10	119	4,153	98.67%

Figure 39: Optimized Station Bleed Map for 10-Minute Travel Time– All Calls



Hybrid Station Analyses - All Calls – PID #2

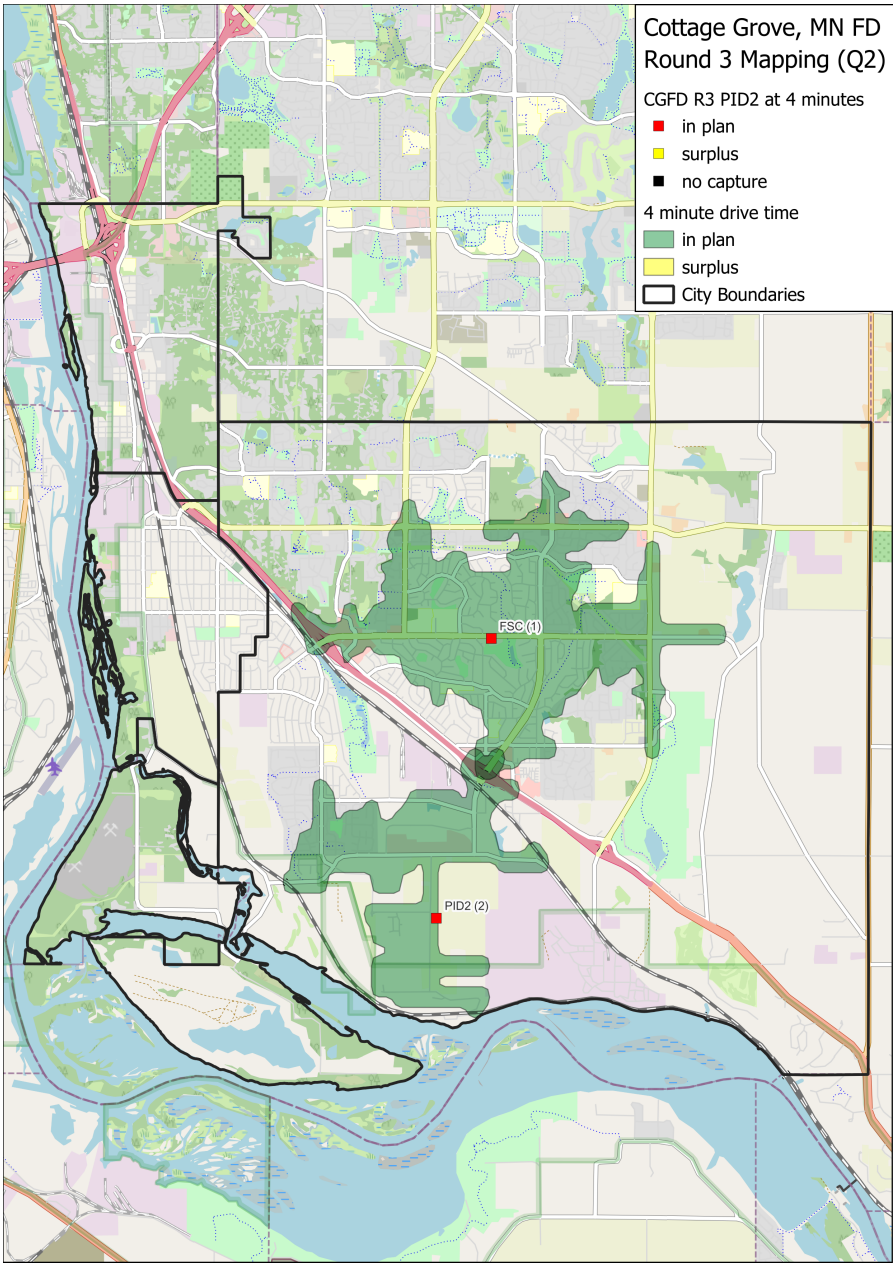
4-Minute Travel Time

Results suggest that two CGFD stations, 35.71% of calls can be responded to within 4 minutes or less travel time.

Table 41: Optimized Fire Station Contribution for 4-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	4	1,218	1,218	28.94%
2	PID2	4	208	1,426	33.88%

Figure 40: Optimized Stations Bleed Map for 4-Minute Travel Time– All Calls



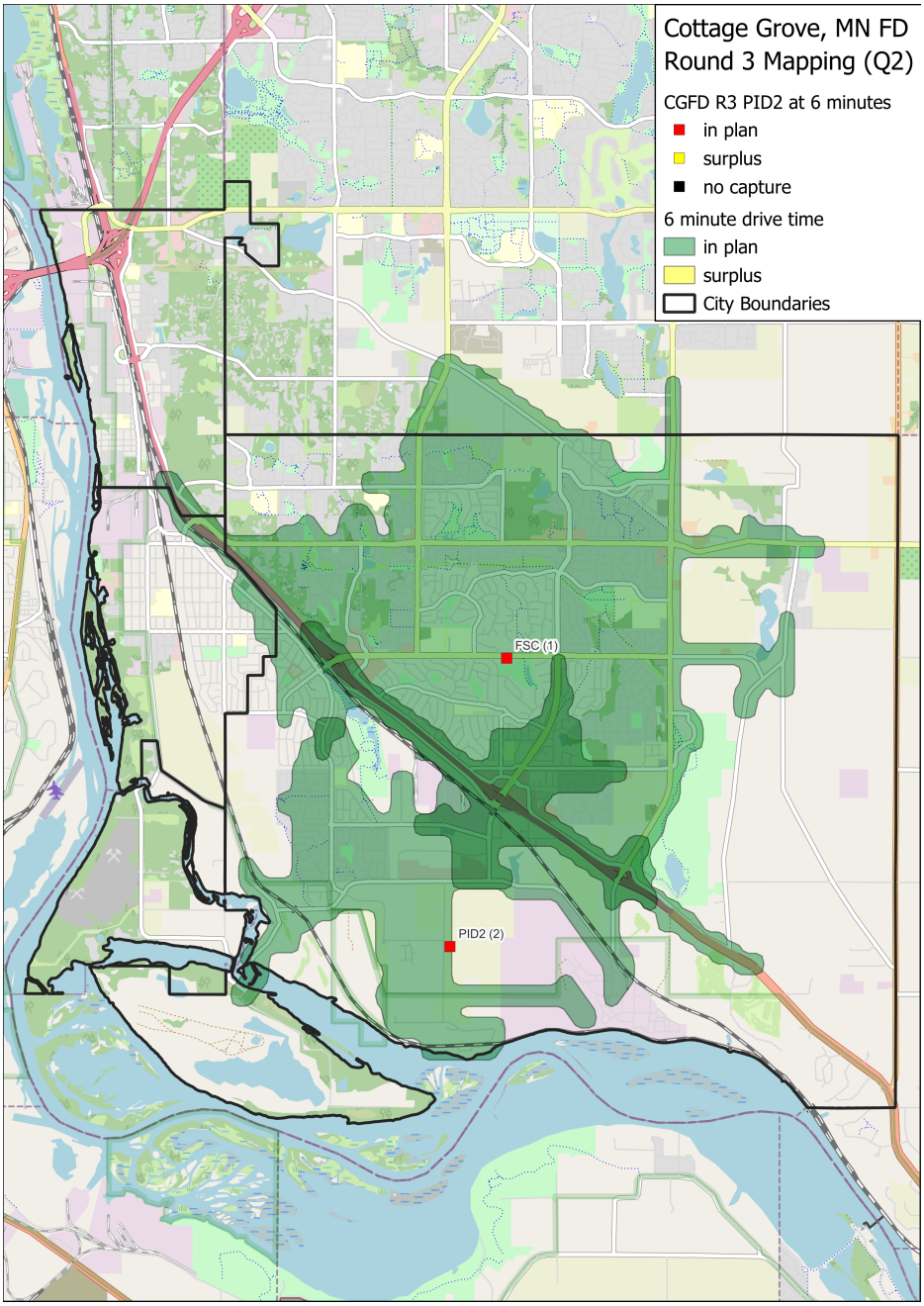
6-Minute Travel Time

Results suggest that with two stations, 70.33% of calls can be responded to within 6 minutes or less travel time.

Table 42: Optimized Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	6	2,632	2,632	62.53%
2	PID2	6	328	2,960	70.33%

Figure 41: Optimized Station Bleed Map for 6-Minute Travel Time– All Calls



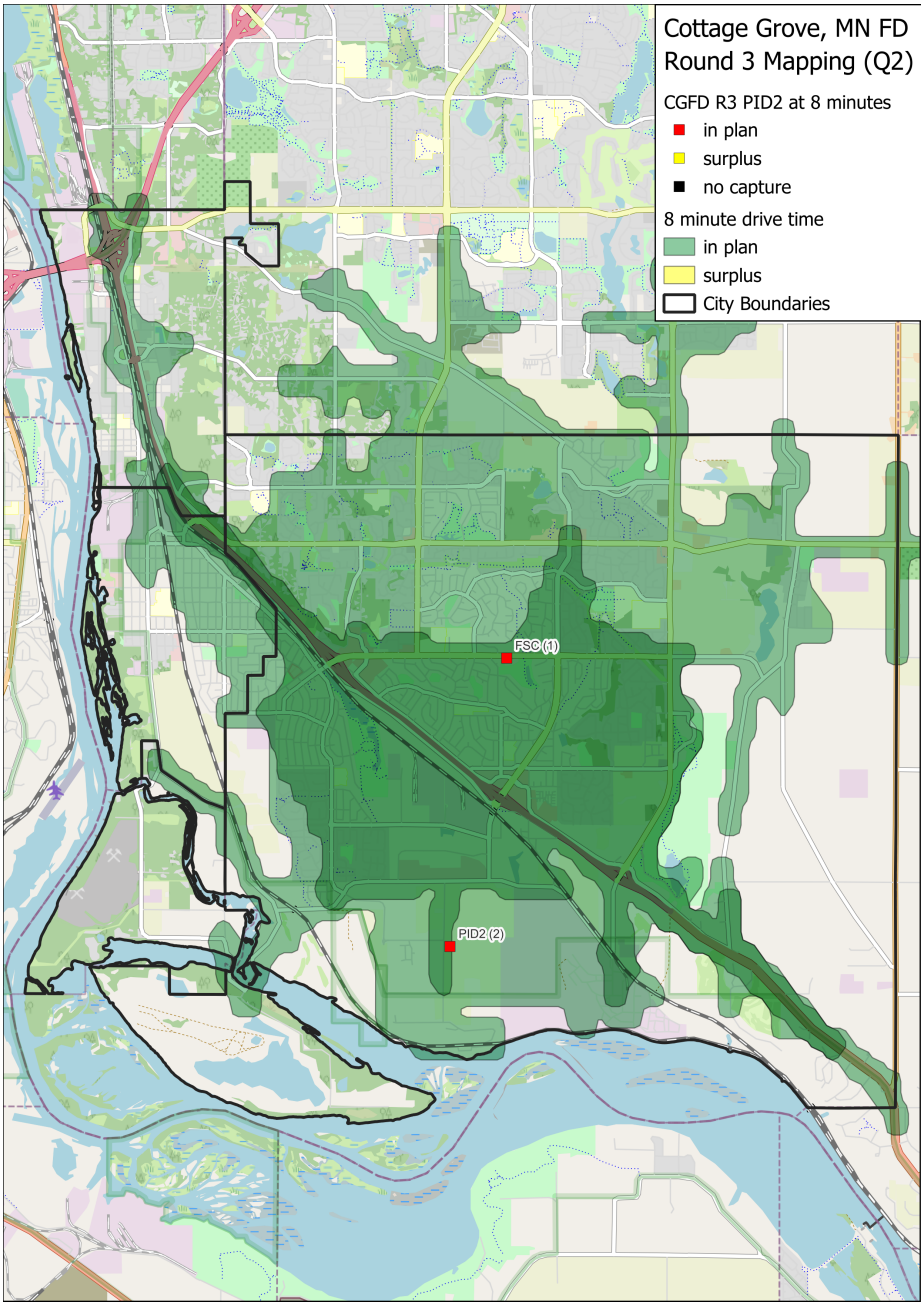
8-Minute Travel Time

Results suggest that with two stations, 89.4% of calls can be responded to within 8 minutes or less travel time.

Table 43: Optimized Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	8	3,598	3,598	85.48%
2	PID2	8	165	3,763	89.40%

Figure 42: Optimized Station Bleed Map for 8-Minute Travel Time– All Calls



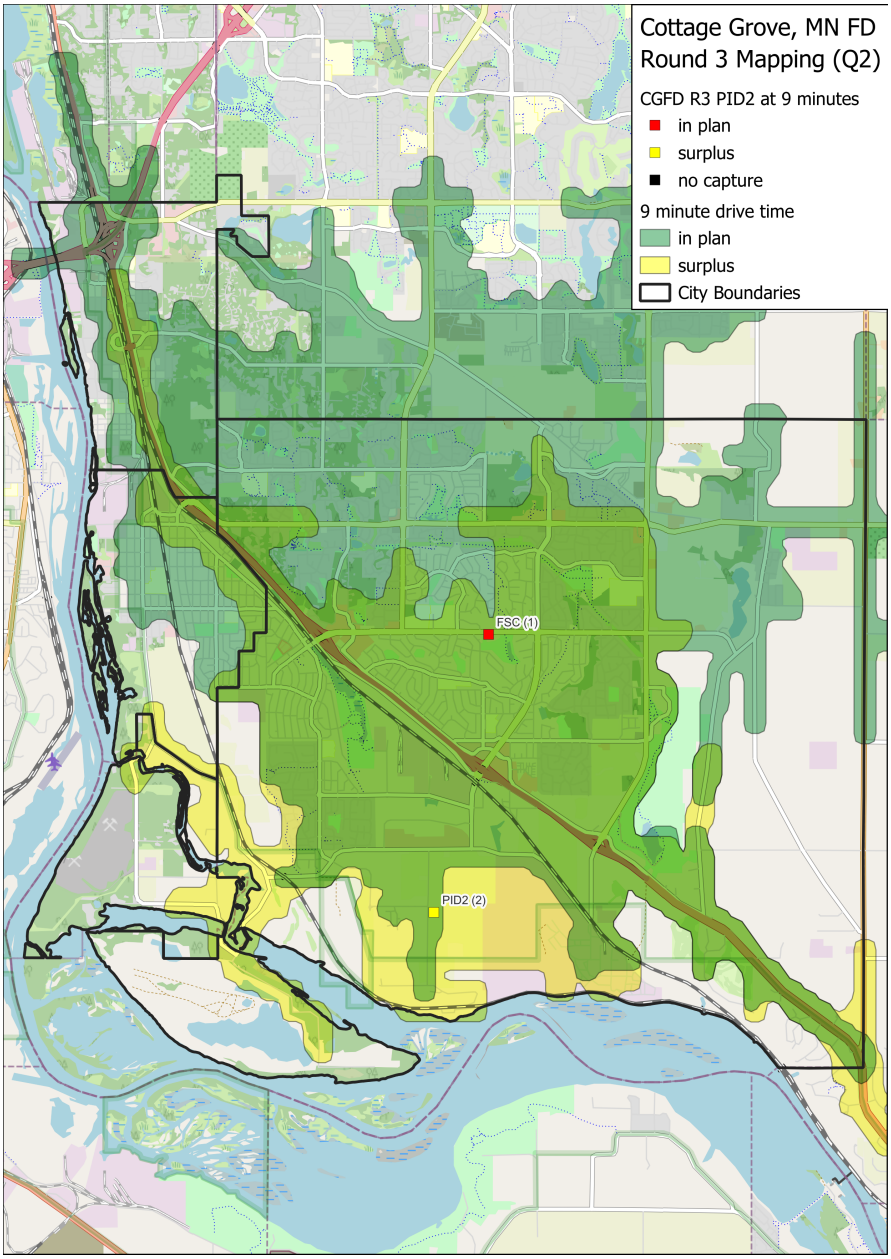
9-Minute Travel Time

Results suggest that with two stations, 96.08% of calls can be responded to within 9 minutes or less travel time.

Table 44: Optimized Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	9	3,929	3,929	93.35%
2	PID2	9	115	4,044	96.08%

Figure 43: Optimized Station Bleed Map for 9-Minute Travel Time– All Calls



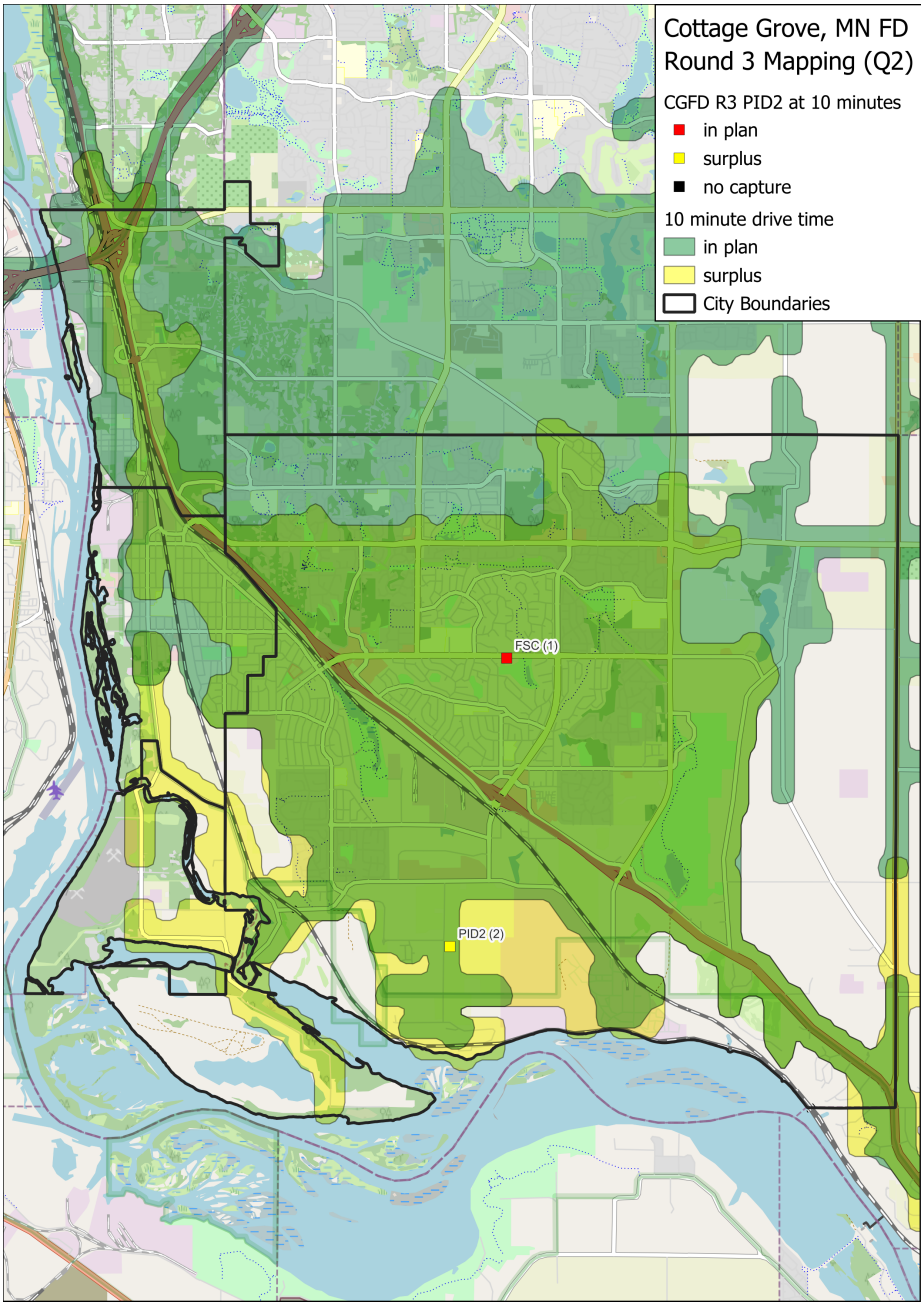
10-Minute Travel Time

Results suggest that with two stations, 98.48% of calls can be responded to within 10 minutes or less travel time.

Table 45: Optimized Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	FSC	10	4,034	4,034	95.84%
2	PID2	10	111	4,145	98.48%

Figure 44: Optimized Station Bleed Map for 10-Minute Travel Time– All Calls



All Jurisdictions – Optimized Stations - All Calls

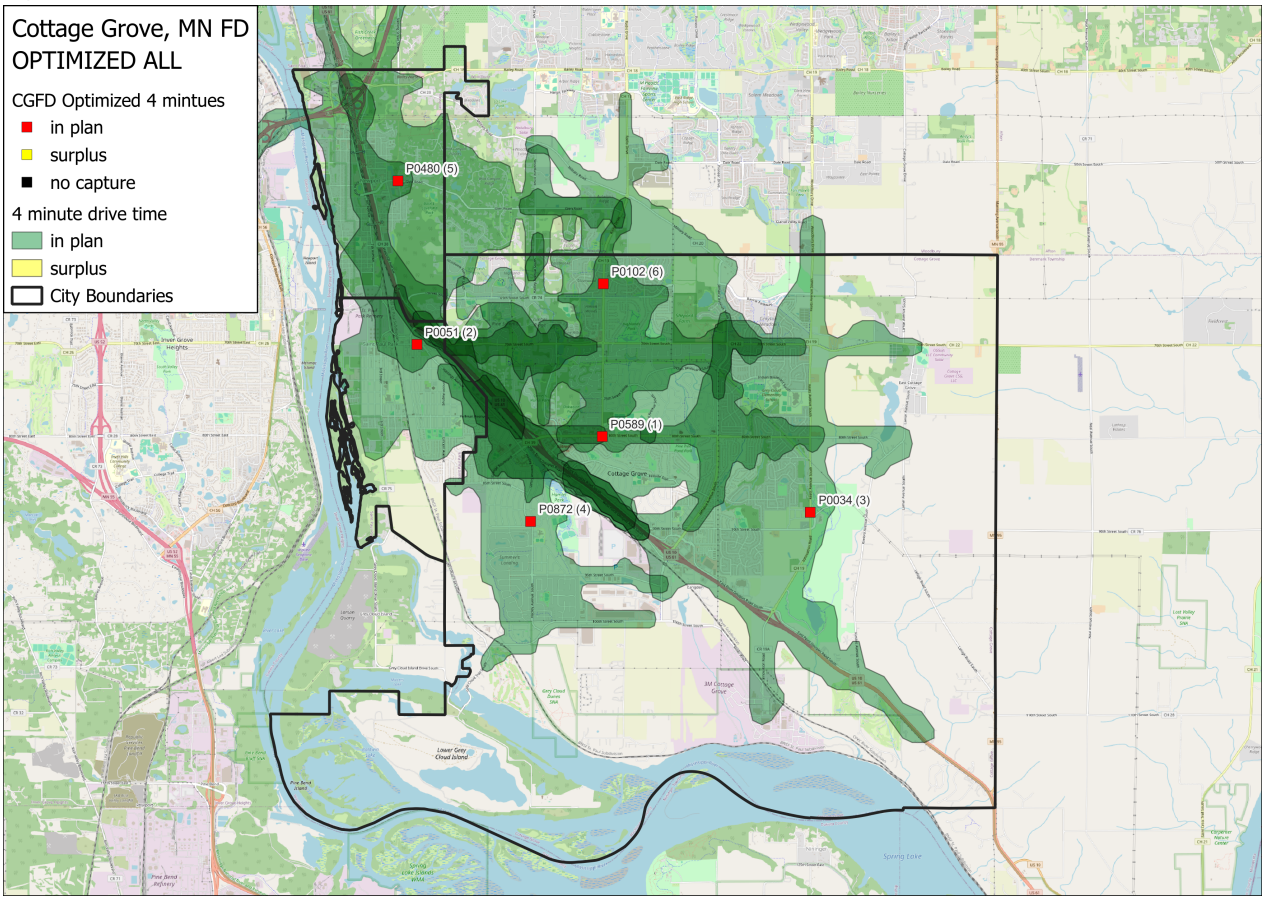
4-Minute Travel Time

Results suggest that with six CGFD stations, 91.9% of calls can be responded to within 4 minutes or less travel time.

Table 46: Optimized Fire Station Contribution for 4-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0589	4	1,879	1,879	44.64%
2	P0051	4	780	2,659	63.17%
3	P0034	4	565	3,224	76.60%
4	P0872	4	359	3,583	85.13%
5	P0480	4	170	3,753	89.17%
6	P0102	4	115	3,868	91.90%

Figure 45: Optimized Stations Bleed Map for 4-Minute Travel Time– All Calls



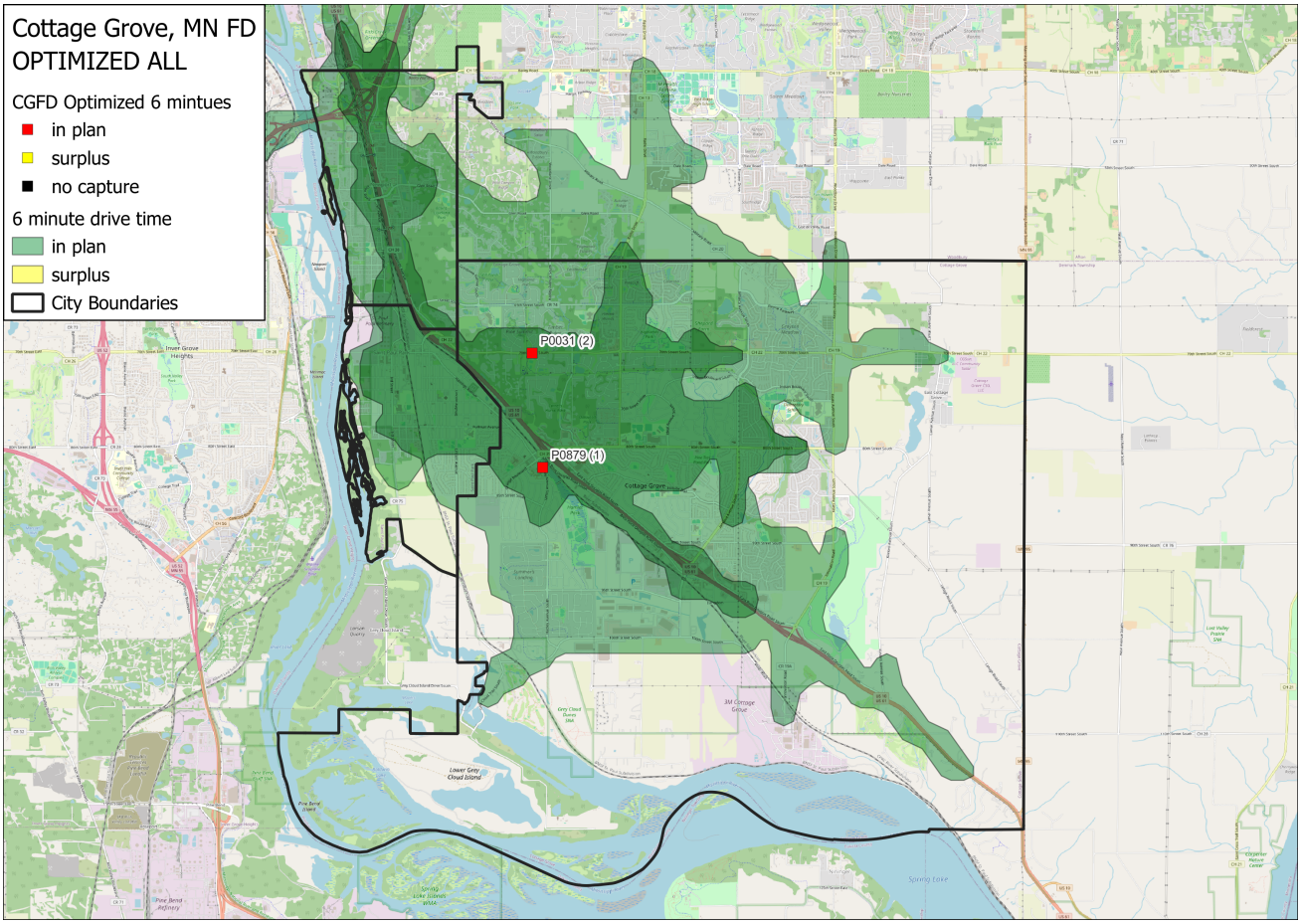
6-Minute Travel Time

Results suggest that with two stations, 92.94% of calls can be responded to within 6 minutes or less travel time.

Table 47: Optimized Fire Station Contribution for 6-Minute Travel Time – All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0879	6	3,402	3,402	80.83%
2	P0031	6	510	3,912	92.94%

Figure 46: Optimized Station Bleed Map for 6-Minute Travel Time– All Calls



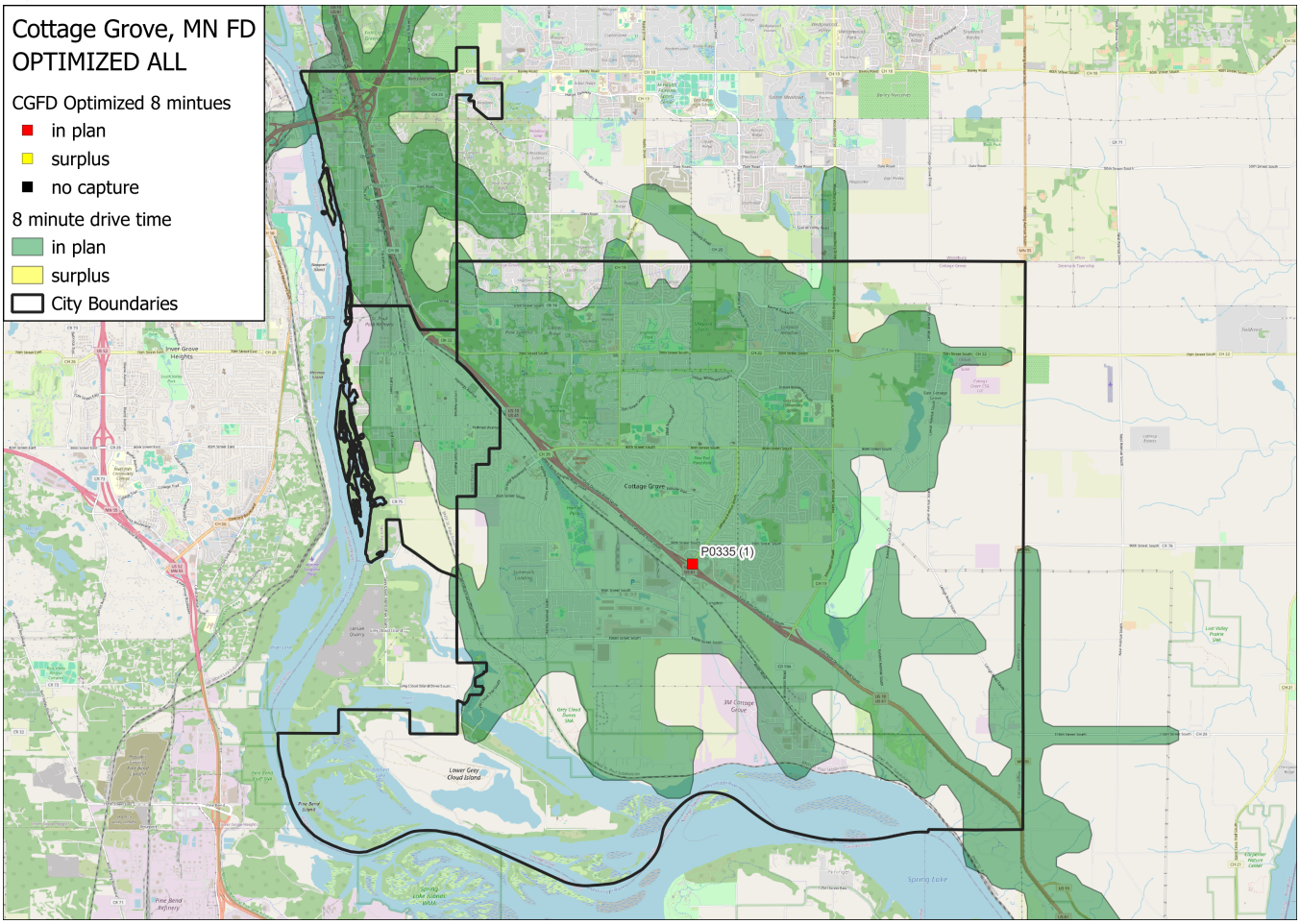
8-Minute Travel Time

Results suggest that with one station, 95.98% of calls can be responded to within 8 minutes or less travel time.

Table 48: Optimized Fire Station Contribution for 8-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0335	8	4,040	4,040	95.98%

Figure 47: Optimized Station Bleed Map for 8-Minute Travel Time– All Calls



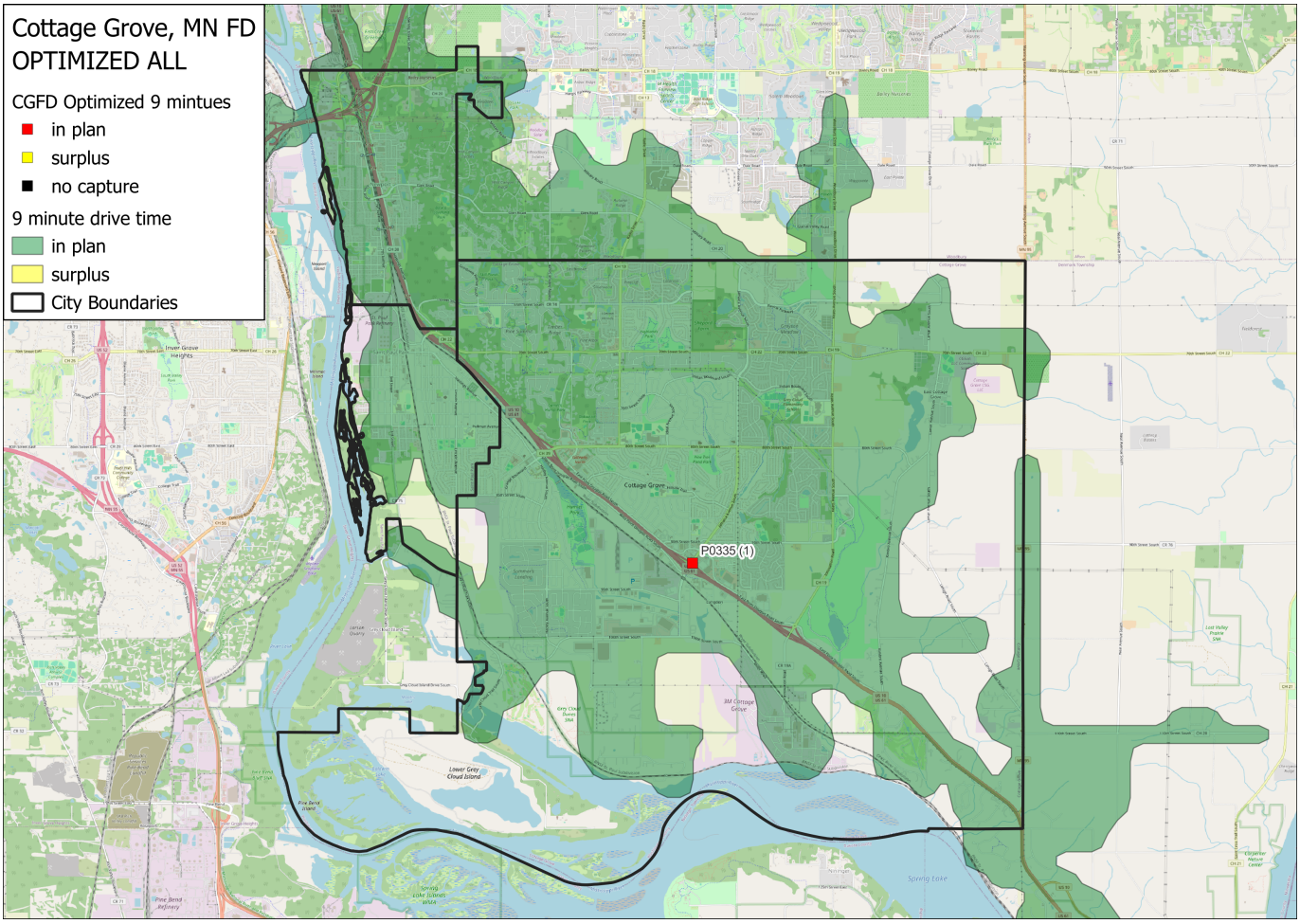
9-Minute Travel Time

Results suggest that with one station, 98.0% of calls can be responded to within 9 minutes or less travel time.

Table 49: Optimized Fire Station Contribution for 9-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0335	9	4,125	4,125	98.00%

Figure 48: Optimized Station Bleed Map for 9-Minute Travel Time– All Calls



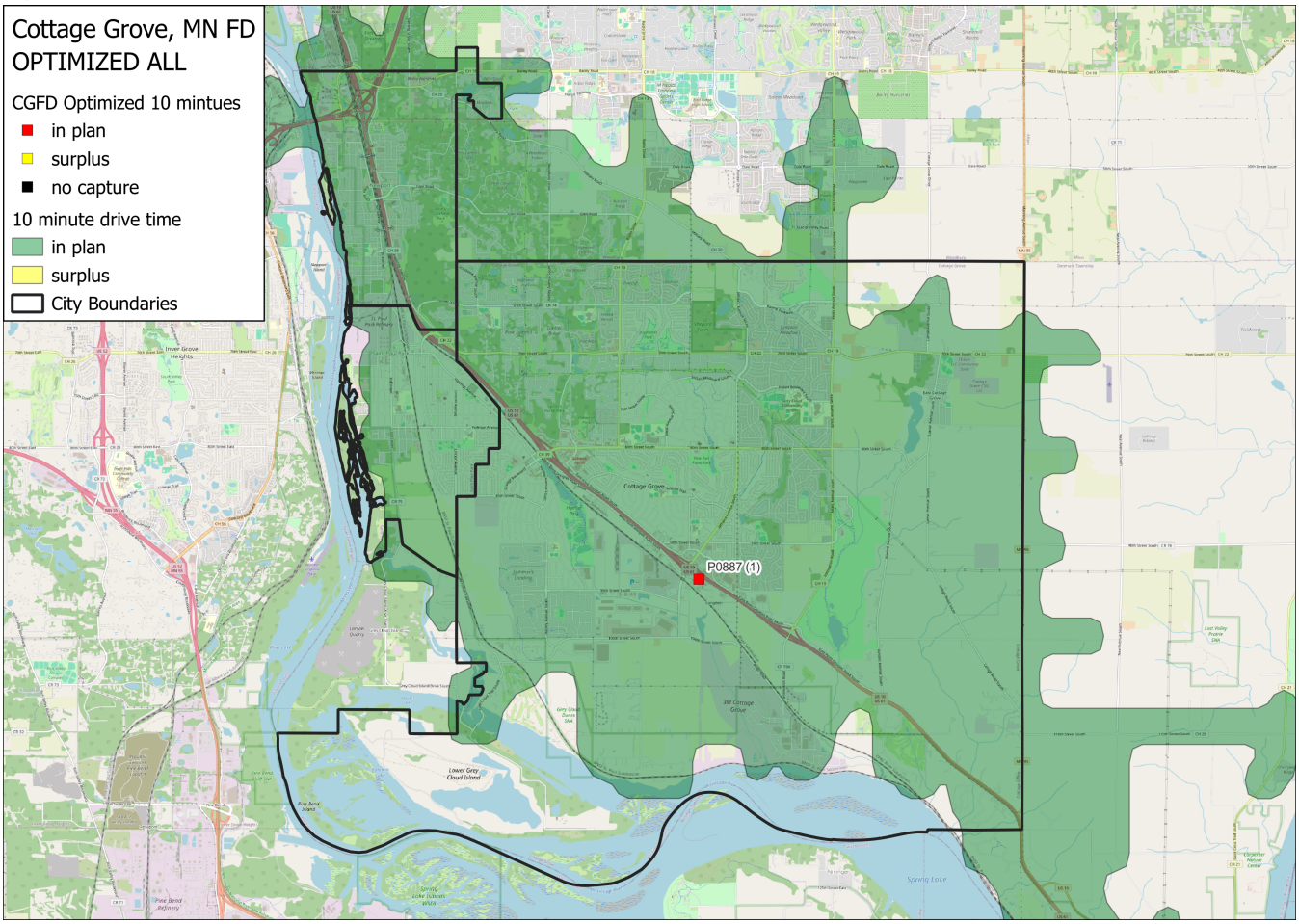
10-Minute Travel Time

Results suggest that with one station, 98.84% of calls can be responded to within 10 minutes or less travel time.

Table 50: Optimized Fire Station Contribution for 10-Minute Travel Time– All Calls

Rank	Station	Drive Time (Min)	Station Capture	Total Capture	Percent Capture
1	P0887	10	4,160	4,160	98.84%

Figure 49: Optimized Station Bleed Map for 10-Minute Travel Time– All Calls



DISTRIBUTION OF RISK ACROSS THE JURISDICTION

Distribution of Demand by Program Areas

Heat maps were created to identify the concentration of the historic demand for services overall and by program area (i.e., EMS, Fire, and other). The blue areas have the lowest concentration of demand, and the dark red areas have the highest concentration of demand.

Figure 50: Heat Map for All Calls

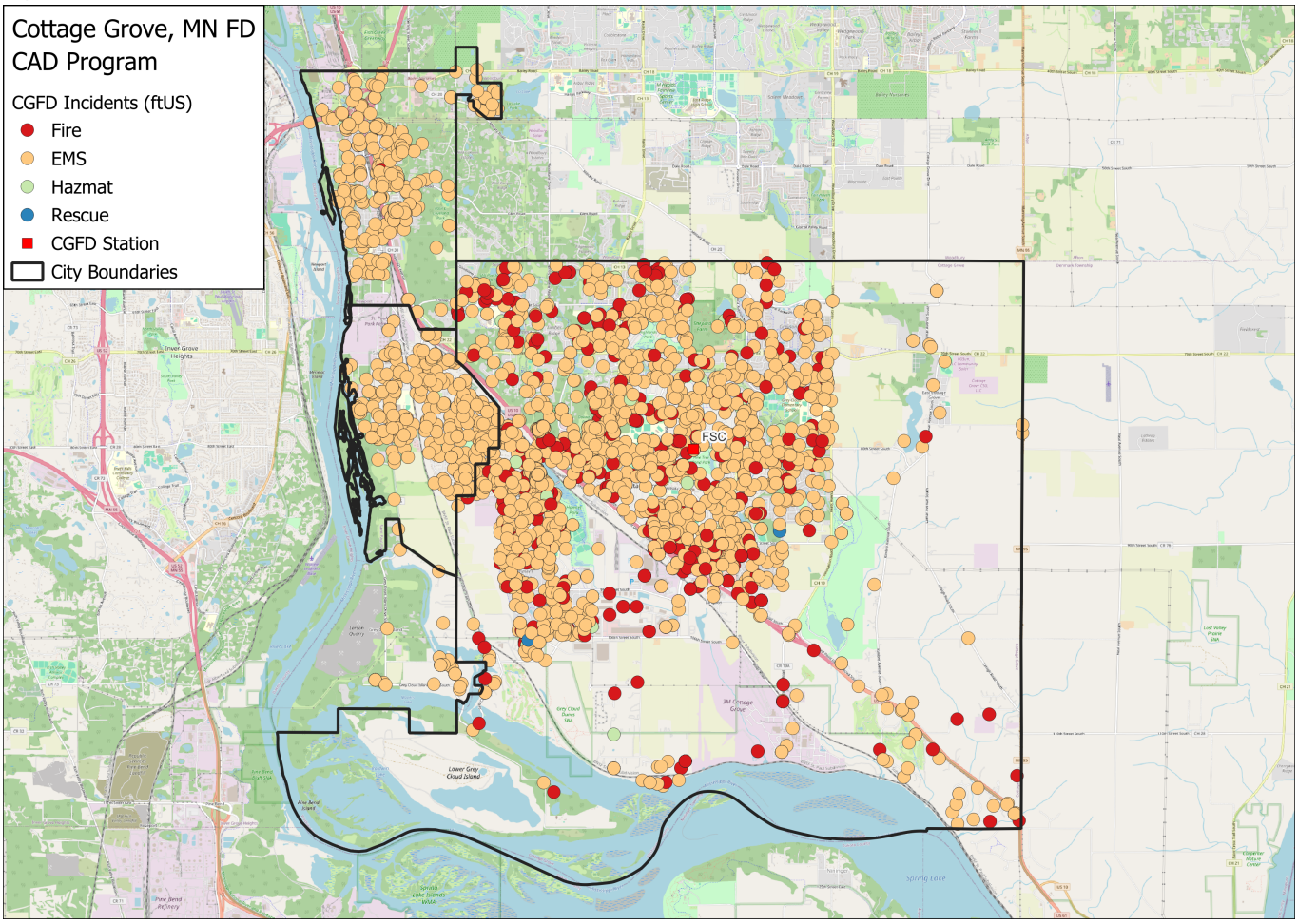


Figure 51: Heat Map for EMS Calls

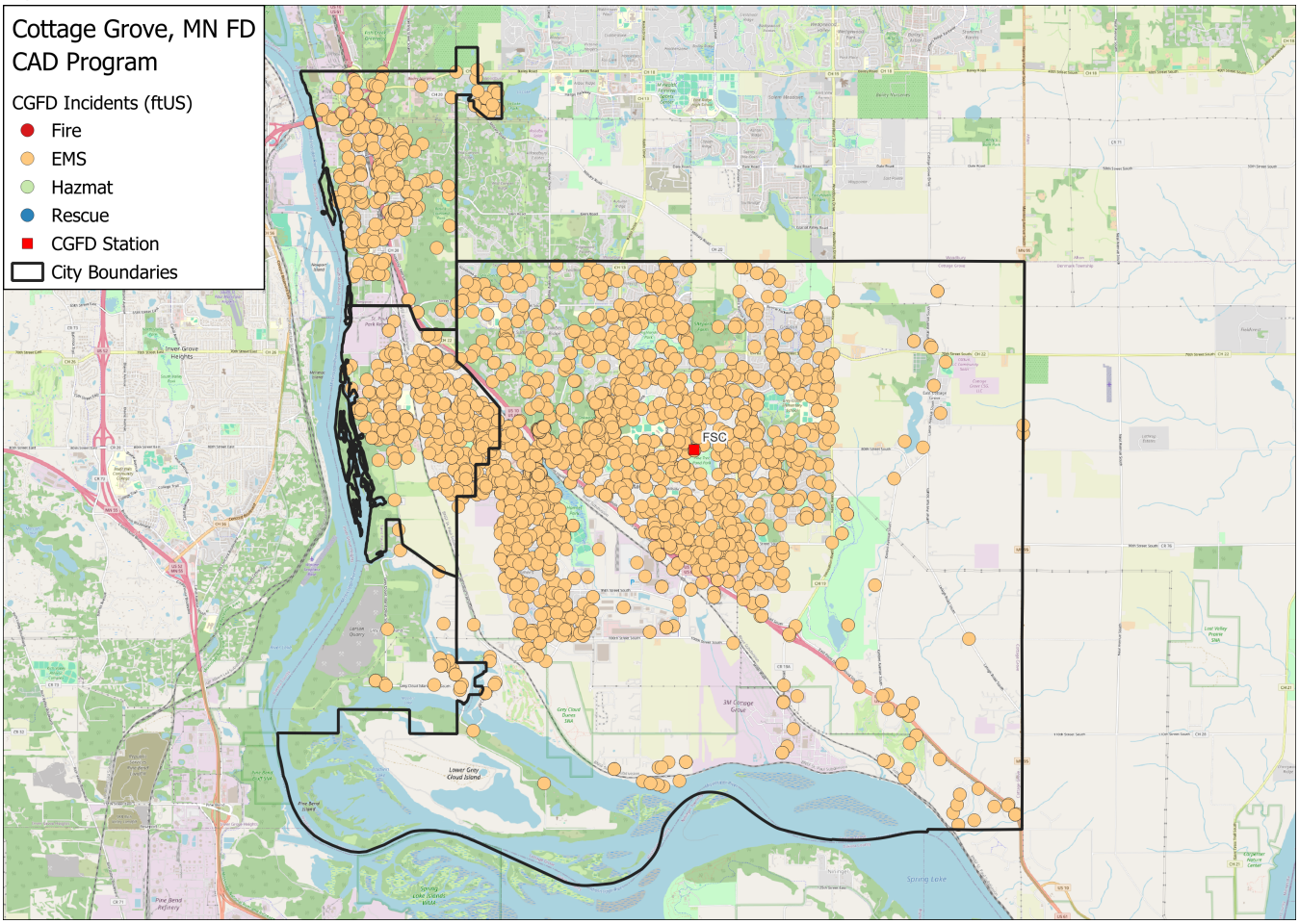


Figure 52: Heat Map for Fire Calls

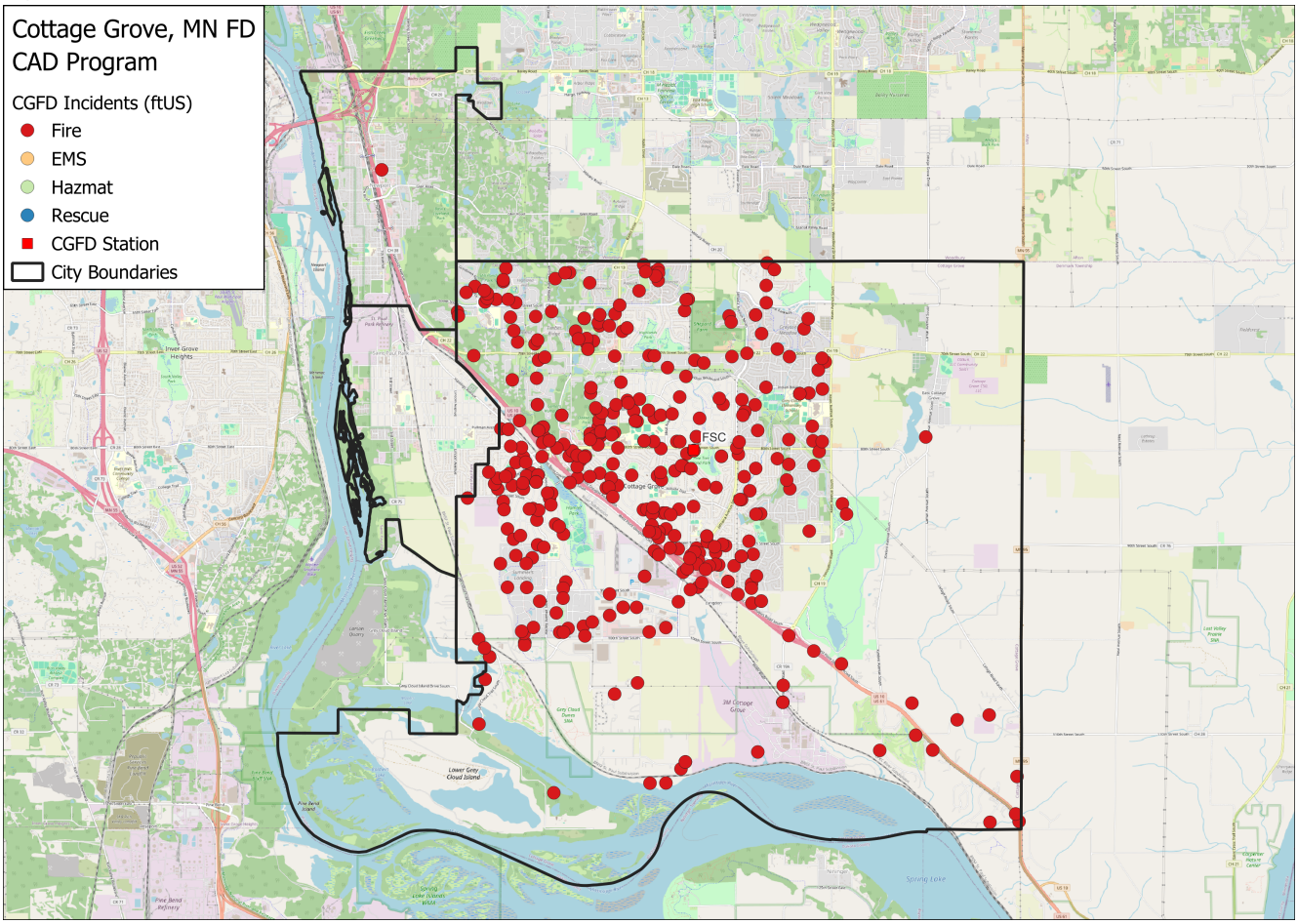


Figure 53: Heat Map for Hazmat Calls

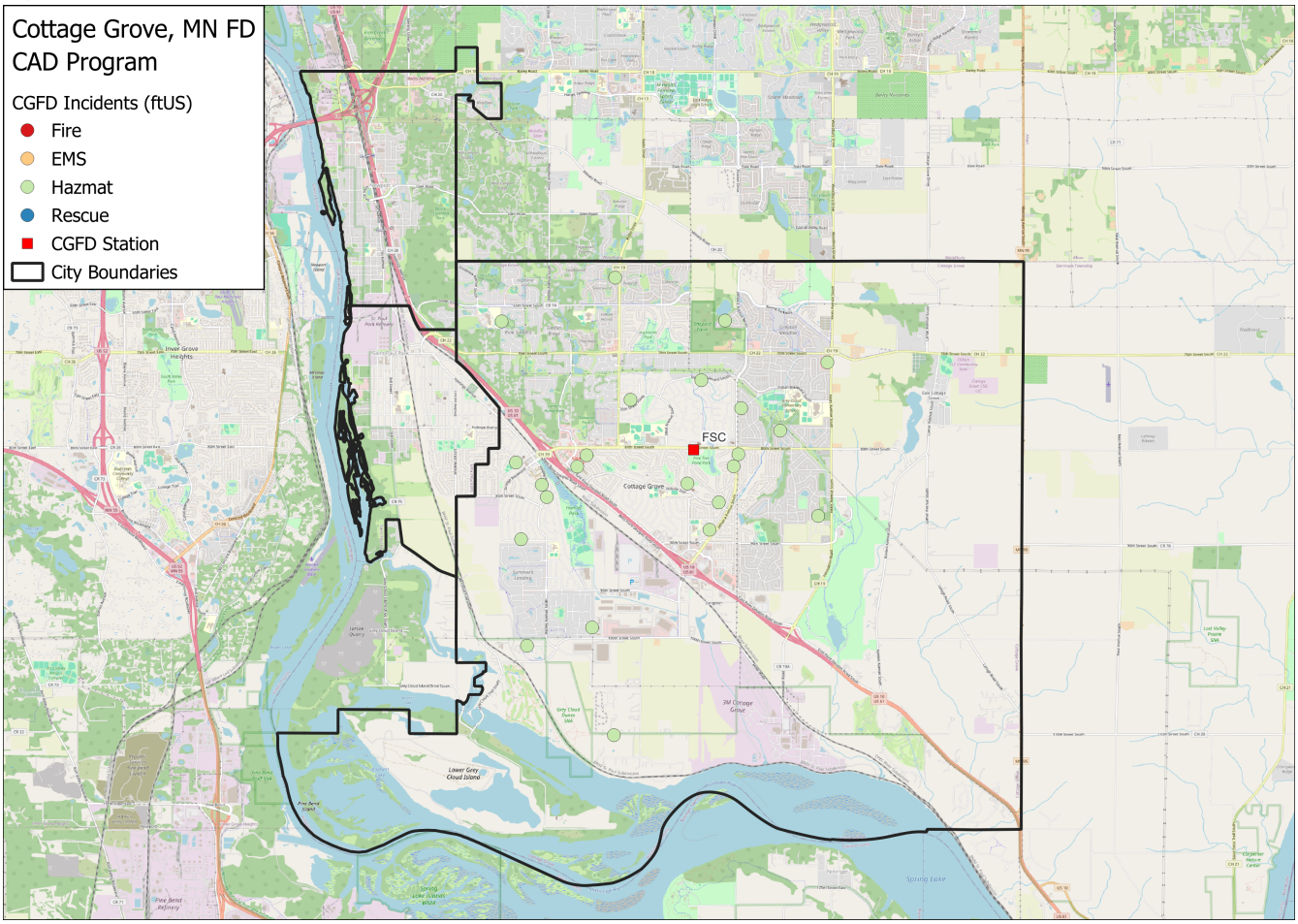
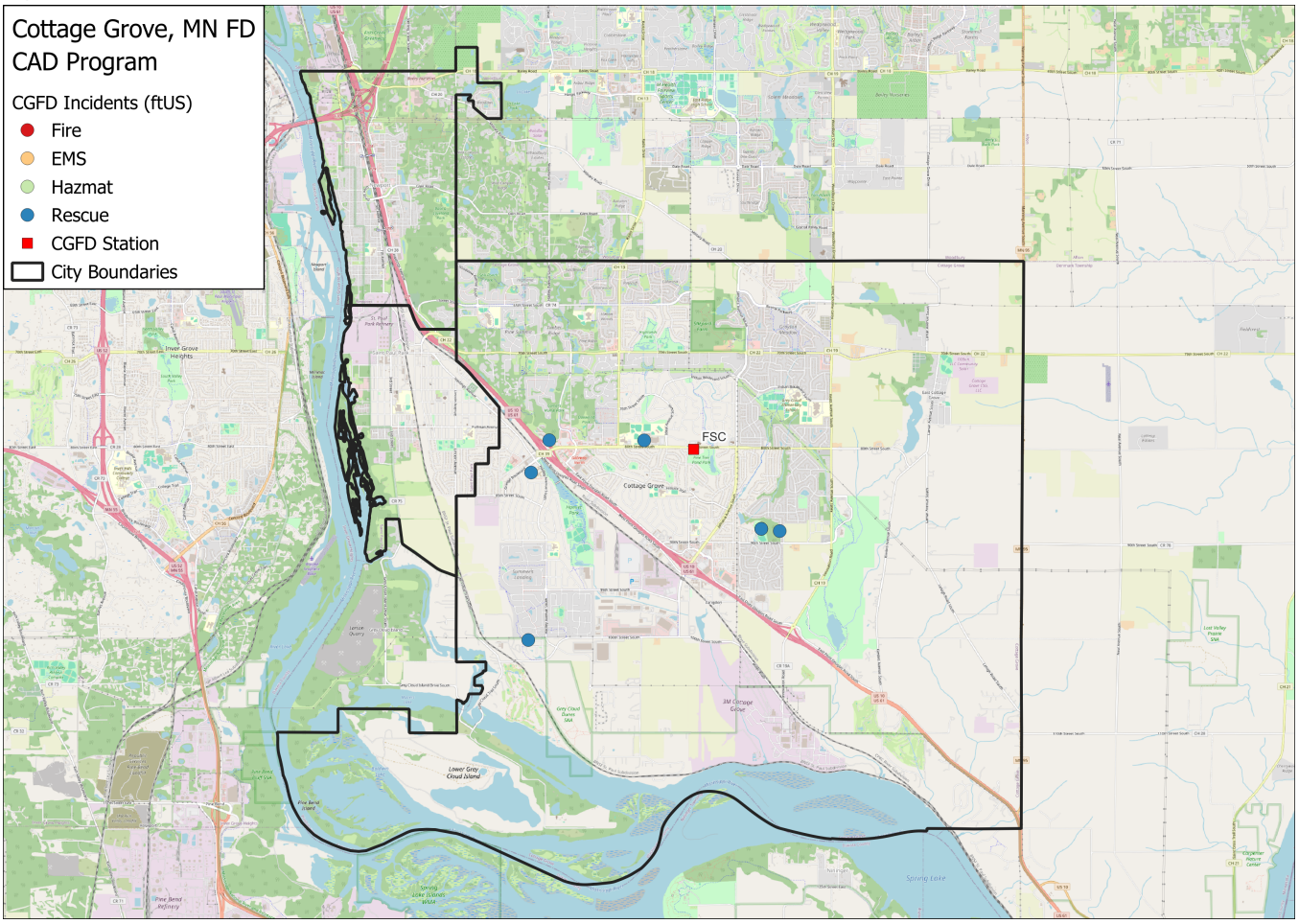
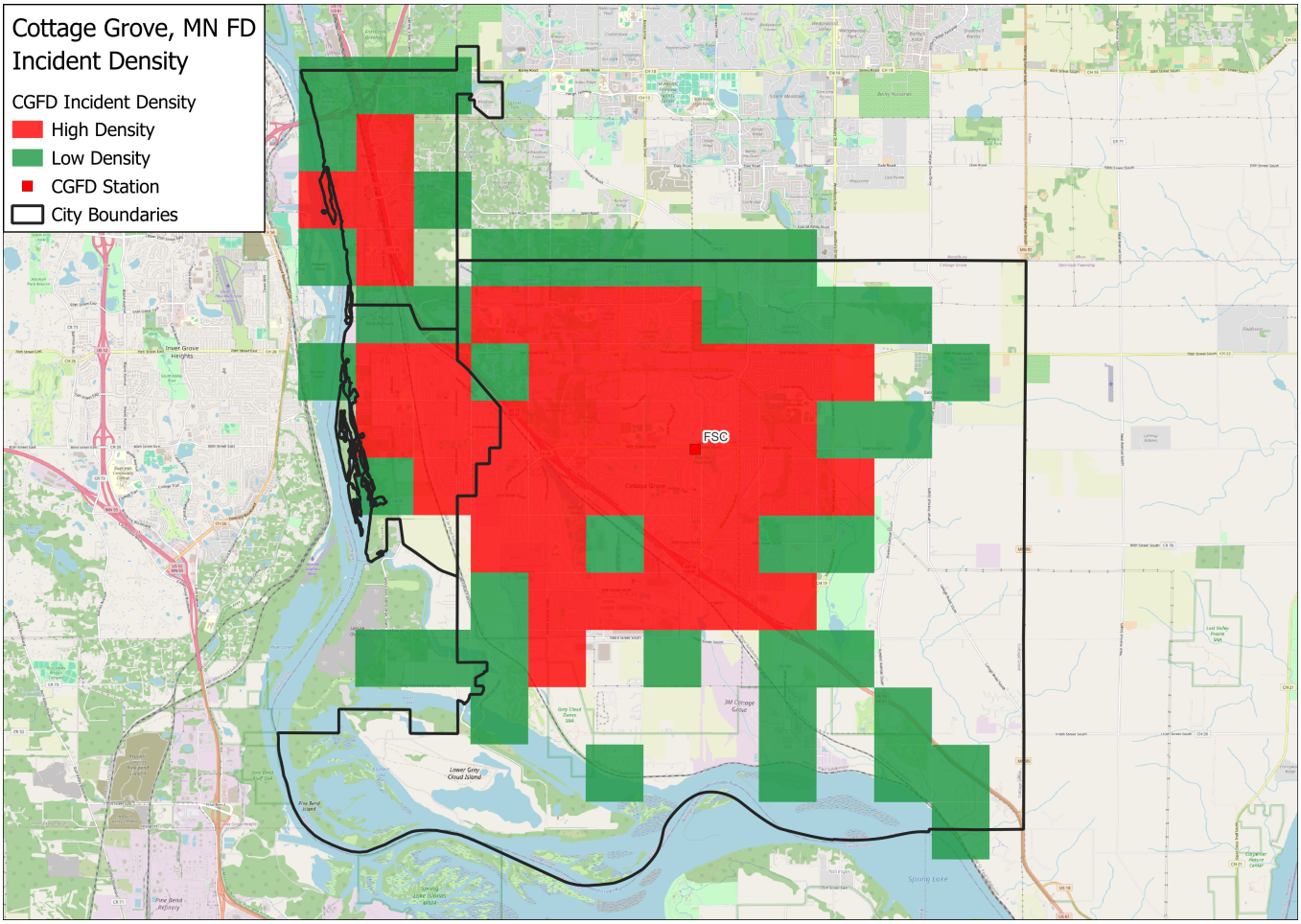


Figure 54: Heat Map for Rescue Calls



Finally, we calculated call density by assessing the relative concentration of incidents within approximately 0.5-mile geographic areas as well as the adjacent 0.5-mile areas. The results demonstrate an urban and rural designation based on call density for services and not based on population. The red areas are designated as urban service areas, and the green areas are designated as rural service areas. Any area that is not colored has less than one call every six months in the 0.5-mile area and the adjacent areas.

Figure 55: Urban and Rural Call Density Map



Long-Term Sustainability of the Models Presented

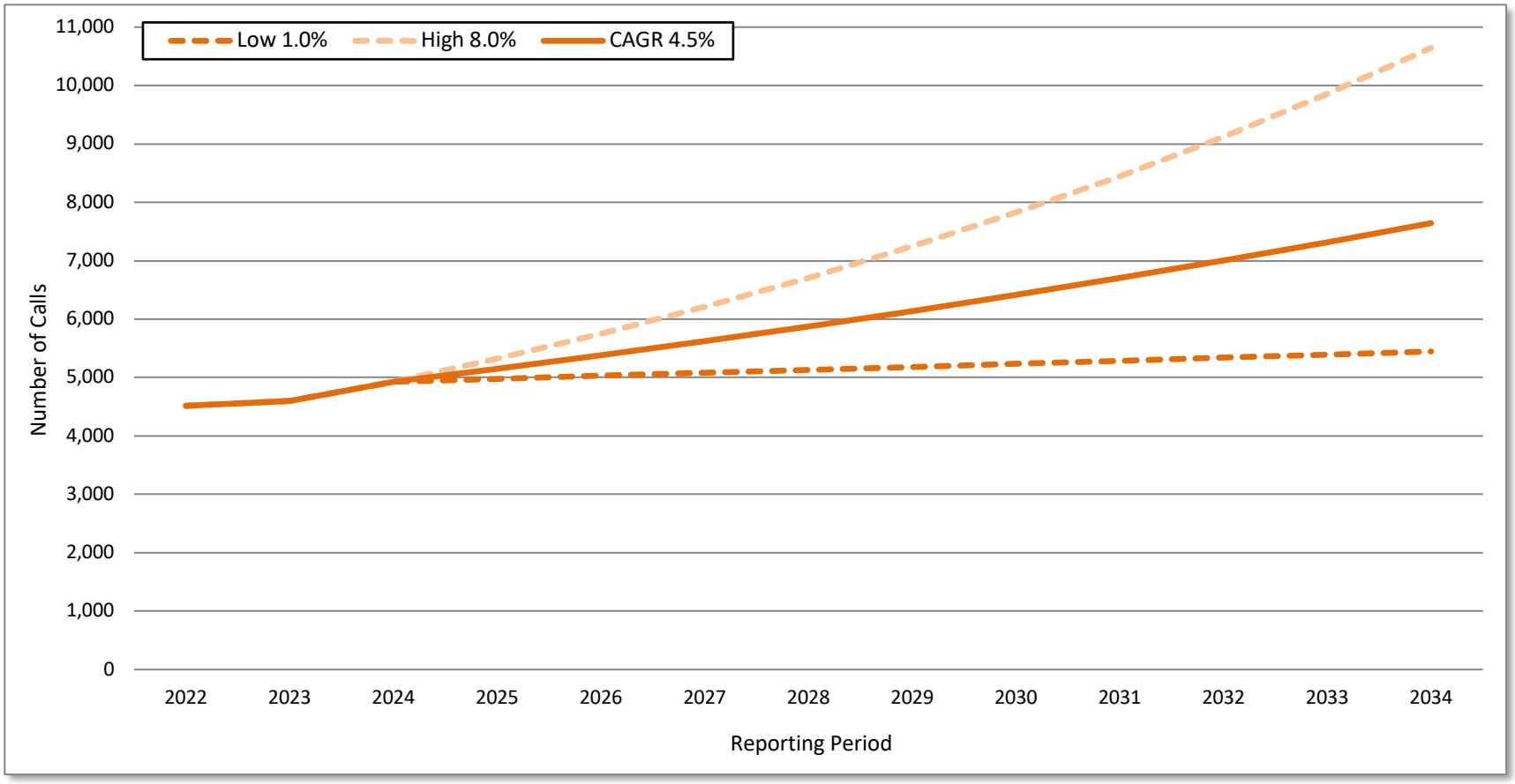
It is important to understand that the distribution models are restricted to the geographic limitations of the jurisdiction and the historical demand for services. Therefore, the number of stations/posts is descriptive of the number of fixed facilities and posting locations required from which to deploy resources. These analyses do not specifically describe the concentration of resources required at each fire station facility or post location to adequately handle the demand for services. For example, some stations/posts may require two or more units in order to handle the demand for services.

With respect to the long-term sustainability of the deployment models presented here, the models will remain accurate for as long as the jurisdiction's overall coverage area has not expanded. In other words, if the city's square mileage remains, then the deployment strategy will be sustainable indefinitely with respect to the coverage area. As other variables such as population density or socioeconomic status change over time, there may be a need for a higher concentration of resources necessary to meet the growing demand for services, but not additional stations. The most prominent reason that the geographic distribution model would need to be updated is for changes in traffic impedance that significantly limit the historical average travel speed. Monitoring travel time performance, system reliability, and call concurrency will provide timely feedback for changes in the environment that could impact the distribution model.

Projected Growth

The figure below depicts observed annual call volume from 2022 to 2024, and projected growth in annual call volume from 2025 to 2034. Projections were made based on the Compound Annual Growth Rate (CAGR; 4.5%), or annualized average, derived from three years of observed call volume data, as well as one lower and one higher hypothetical annual growth rate scenario to provide a plausible range around the CAGR. Because the observed range of YoY growth from 2022 to 2024 was 1.9% to 7.1%, range values of 1.0% and 8.0% were selected.

Figure 56: Observed and Projected Growth in Call Volume 2022-2034 – All Jurisdictions



FITCH

& ASSOCIATES

City Council Action Request

12.A.

Meeting Date	1/10/2026
Department	Administration
Agenda Category	Action Item
Title	East Ravine Park Planning
Staff Recommendation	Receive East Ravine Park and Trail Master Plan analysis and guide future financial and development planning and prioritization.
Budget Implication	N/A

Attachments

1.	Council Memo-E Ravine Plan Analysis
2.	East Ravine Parks and Trails Master Plan

To:	Honorable Mayor and City Council Jennifer Levitt, City Administrator
From:	Zac Dockter, Parks and Recreation Director
Date:	December 15, 2025
Subject:	East Ravine Park Planning

Introduction
As Cottage Grove develops east, analysis of future park plans east of Keats Avenue remains important. Analysis includes identification of both land acreage and dollars needed to acquire and build out the parks planned for this area and strategizing attainment of master plan goals. This report is specifically focused on the land between 70th Street to 80th Street (north/south) and Lamar Avenue and Keats Avenue (east/west).

This timely discussion for planning of park spaces before development occurs, aligns with the policies in the 20240 Comprehensive Plan (Park Section 5, Goal 1) which states:

POLICY 5.1 - Parkland and open space areas will be acquired through park dedication, purchase, or donation. Private developers will be required to dedicate a portion of their land for public use when a development includes areas planned for park and open space acquisition. Full dedication credit is not given for lands with steep slopes, tree preservation areas, wetlands, bedrock, or other areas that are development constrained.

POLICY 5.2 - When feasible, the acquisition of parks, open space, and other recreational facilities should be accomplished at an early date, so that appropriate sites can be obtained to meet long-range public recreational needs before development pressures render the property too expensive.

Background
The City's Comprehensive Plan categorizes primary park models as follows:

COMMUNITY PARKS - Community parks and open space are typically larger than 50 acres in size and serve a broad audience of users and purposes within the City park and open space system. Multi-functional design and facilities are found within the boundaries of these parks and focus on meeting the recreation needs of large sections of the community. Preservation of unique landscapes and open space is possible on a grand scale in community parks, and management of community parks require special attention and fiscal resources because of the size and amount of facilities and the intensive community use. A community park should serve two or more neighborhoods with a service area of one to three miles in radius. Ideally, the site should be serviced by arterial and collector streets and be easily accessible from throughout its service area by way of interconnecting trails. Selection of community park sites should take into consideration existing private conservancy areas, natural resource areas, and regional parks and schools, each of which may provide recreational opportunities normally provided in community parks. The site should exhibit physical characteristics appropriate for both active and passive recreation uses. It should have suitable soils, positive drainage, varying topography, and a variety of vegetation and include natural resource areas, greenways, lakes, ponds, and woodlands. Potential active recreation facilities include large play structures, creative play

attractions, game courts, ballfields, tennis courts, volleyball courts, horseshoe courts, bocce ball courts, ice skating areas, archery ranges, disc golf areas, aquatic features, and amphitheaters. Passive activity facilities include extensive recreation and nature trails, individual and group picnic/sitting areas, general open space and unique landscapes/features, nature study areas, and ornamental gardens. The ability to hold cultural activities, plays, and concerts, is also appropriate for a community park. Distribution of land area between active and passive recreation is determined on a site-by-site basis, and active field areas should be sized large enough to accommodate a field rotation maintenance program. Landscaped parking lots should be provided as necessary to accommodate user access. Park lighting should be utilized as appropriate for security, safety, lighting facilities, and extending the hours of use/ scheduling of active athletic areas.

NEIGHBORHOOD PARKS - The neighborhood park and open space is the basic unit of the City's park system and is designed to serve as the recreational and social focus of neighborhoods. They include active and passive recreation activities geared specifically for those living within a half mile service area. The park should be centrally located and easily accessible by way of interconnecting trails, sidewalks, or low-volume residential streets. Five acres is the accepted minimum standard necessary to provide space for recreation activities. Seven to ten acres are considered optimal. The site should exhibit physical characteristics appropriate for both active and passive recreation uses including suitable soils, positive drainage, varying topography, and a variety of vegetation and natural resource areas. Sites should be connected to schools and other park system components such as natural resource areas, lakes, ponds, and greenways. Potential active recreation facilities include play structures, creative play attractions, game courts, ball fields, tennis courts, volleyball courts, horseshoe courts, bocce ball, pickle ball, basketball, and general ice skating areas. Passive activity facilities include networks of recreation and nature trails, individual and group picnic/ sitting areas, general open space and unique landscapes/features, nature study areas, and ornamental gardens. The ability to hold cultural activities, such as plays and concerts, is also appropriate for a community park. Distribution of land area between active and passive recreation is determined on a site by-site basis. Parking lots of limited size should be provided as necessary to accommodate user access, and park lighting should be used moderately due to proximity to residential units.

The East Ravine Park and Trail Master Plan utilizes the guidelines of the comprehensive plan to forecast recreational service areas to assure the City is able to meet present and future community needs. The primary function of the current plan is to acquire land for community/neighborhood parks in strategic locations based upon two factors; unique site characteristics (landforms, habitat, environmental, historical, etc.) and park service radius. The parkland acquired in the present will serve generations of citizens and visitors in the future. So thoughtful planning and strategizing has long-term benefits.

Parks and Trails

The East Ravine Parks and Trails Master Plan was originally adopted by City Council and the Parks, Recreation and Natural Resources Commission in 2021. It was later updated in 2023. In 2025, City Council requested another review from the Parks, Recreation and Natural Resources Commission to assure service needs were adequately addressed; not over or under serviced. The Commission affirmed the plan "as-is" to meet future service needs. However, the Commission also acknowledged that as development occurs, those service needs could shift based on neighborhood demographics and/or trailway corridors which could correlate to a need for amending the plan.

The current master plan is included with this report. It calls for inclusion of the following recreational elements:

- One Community Park
- Three Neighborhood Parks
- Extensive Trail Network Throughout Development

The Community Park is estimated at 139 total acres. This would include active and passive recreational areas along with nearly 74 acres of Vandenberg Lake and natural space. The City is anticipating that South Washington Watershed District will pursue acquisition of the 74 acres of lake and natural space as part of their Groundwater Protection Plan and then dedicate ownership of the land to the City of Cottage Grove after applying a conservation easement. The remaining 65 acres of active park space would need to be acquired by the City utilizing land dedication requirements and/or cash. Construction of the park plan is estimated at $10M.

The three neighborhood parks are each estimated at 5 acres in size but may include additional open space as development occurs. Additional open spaces near neighborhood parks often include ponds, trailway corridors or undevelopable spaces that are acquired with little to no resources necessary from the City due to land dedication requirements. Construction cost of each neighborhood park is estimated at $700,000 which is budgeted for moderate site grading, utilities, picnic shelter, sport court, playground, trails and landscaping.

Funding for East Ravine neighborhood parks is scheduled in the CIP. $700,000 from the Park Trust Fund is slated each year beginning in 2028. There is no funding slated for the community park at this time. All parks have potential for some financial support from grant programs. Typical grant programs require 50% cash match from the City. All grants are competitive programs and cannot be fully replied upon for funding.

Staff will guide the City Council through discussion of the East Ravine Master Plan. To aid in that discussion, the list below of current park plans/obligations outside of the East Ravine area that remain undeveloped to date provides valuable context.

Park	*Park Budget*	*Year Funded*	*Funding Source(s)*
Denzer Park	$500,000	2026	Park Trust
Still Ponds Park	$500,000	2027	Park Trust, CPL Grant
Peterson Park	$500,000	2027	Park Trust, Local Trails Grant, Outdoor Rec Grant
Military Trailhead	$200,000	2027	Park Trust, Local Trails Grant

Staff Recommendation
Receive East Ravine Park and Trail Master Plan analysis and provide guidance for future financial and development planning and prioritization.

COTTAGE GROVE
EAST RAVINE GROWTH AREA
PARK MASTER PLAN

City of Cottage Grove – April 2021 – Updated April 2023

Consultant:
Hoisington Koegler Group Inc.
Planners | Landscape Architects | Urban Designers
612-338-0800

Overview:

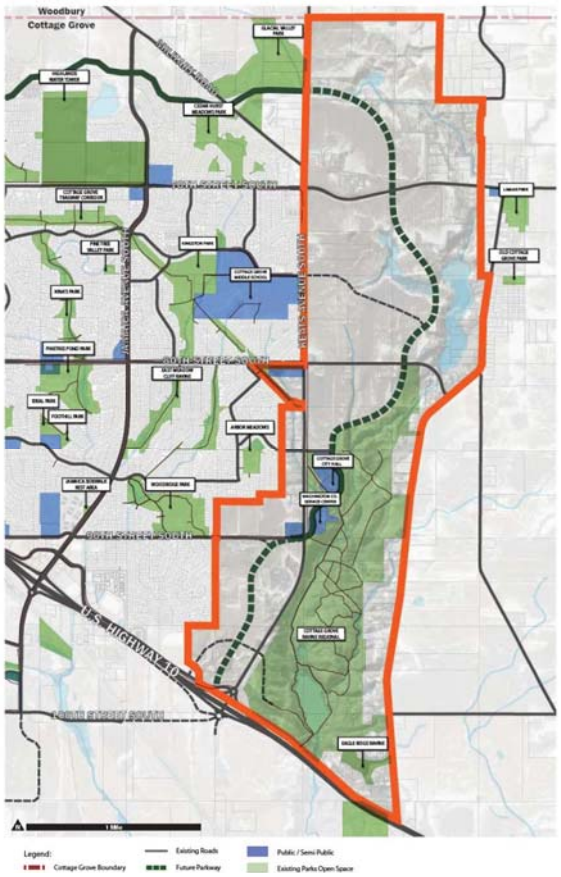
The City of Cottage Grove is continuing to see strong growth and one of the reasons people choose to move to and stay in the community is its' recreation offerings. As the City develops, it is important to have a plan in place for expanding the park and trail system to meet the needs of new residents. Cottage Grove has benefited from previous efforts to implement plans to guide public and private investments involving parks and open space. This plan serves that purpose as Cottage Grove prepares for growth east of Keats Avenue.

The City is in the process of building out Ravine Parkway, which will be the organizing feature in creating neighborhoods and setting the character of the area.

The East Ravine Parks and Trails Master Plan anticipates a need for the following recreational opportunities:

- A community park along Ravine Parkway with natural resources and athletics fields
- Six neighborhood parks
- Three smaller mini-parks to serve smaller neighborhoods
- Trails for recreational and/or non-motorized transportation links around the community to key destinations such as parks, schools, and commercial nodes

Existing recreational amenities included within the scope of this study include Washington County's Cottage Grove Ravine Regional Park and Central Greenway Regional Trail, the City's planned Community Center and Eagle Ridge Ravine Park (existing natural park area).



Study Area

Study Purpose:

The purpose of this plan is to guide park and trail development and assist the City of Cottage Grove and private development partners as the land develops. This plan identifies the parks and trails needed to support new neighborhoods in Cottage Grove in currently undeveloped areas between the ravine on the east, existing neighborhoods to the west, CG Ravine Regional Park to the south and the Woodbury border to the north.

Cottage Grove's Comprehensive Plan includes the following language regarding the purpose and authority for this plan:

POLICY 5.5 The City will prepare a master plan for each component of the park and recreation system based on the criteria established in this comprehensive plan. The park master plans shall be the basis for site acquisition, development, and use, and upon establishment, be reviewed in connection with updates to capital improvement plans and budgets.

This plan also helps establish the nexus between new development and new park needs within the City of Cottage Grove.

The study is intended to provide:

- Sound planning rationale for the location and type of parks to be developed in the study area
- A clear document that the City can use when working with private landowners and developers to evaluate development proposals
- A tool to help the City collaborate with other public entities (MNDOT, DNR, Washington County, ISD 833, South Washington Watershed District, Washington Conservation District, Metropolitan Council) regarding public investments in parks, conservation, and infrastructure.

Study Approach:

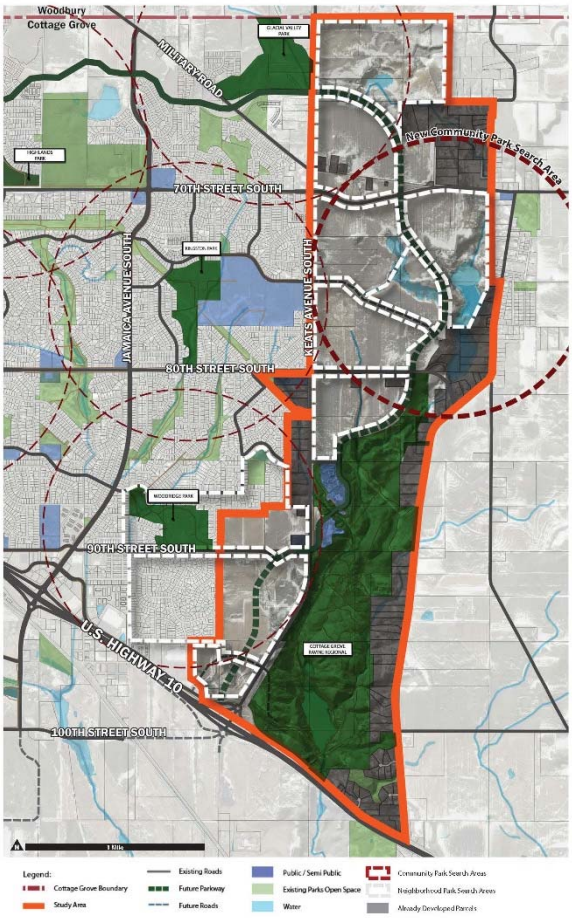
The findings of this plan are based in analysis of:

- Natural Resources (uplands, wetlands, lakes, slopes, soils)
- Previous Planning Efforts
- Land Ownership and Patterns (parcels that are already developed, park/public land, large landowners)

Based on the analysis, there are multiple park "search areas" identified. These areas are intended to identify future neighborhoods that will need a park within walking distance, and that do not require crossing a major roadway or other barrier, such as a waterbody, to get there.

When developed, each search area should include a neighborhood park or a community park that also serves neighborhood functions.

This study recognizes that to some extent the development of these parks will be dependent on a number of factors such as the timing and phasing of future development, land ownership, and infrastructure such as roads, stormwater features, and sewer easements. Variation in location may occur on a case-by-case basis, but should be minimized to the extent possible.



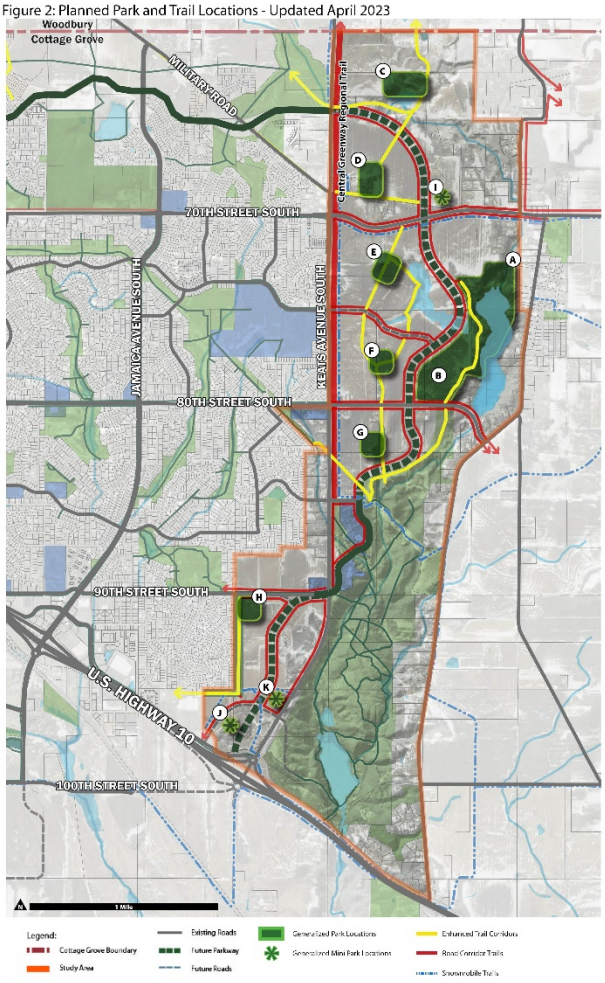
Community and Neighborhood Park Search Areas

Community Parks:

Community Parks are recreation areas intended to serve the larger Cottage Grove community, rather than focusing solely on the adjacent neighborhoods. The Cottage Grove 2040 Comprehensive Plan describes Community Parks as:

> *Community parks and open space are typically larger than 50 acres in size and serve a broad audience of users and purposes within the City park and open space system. Multi-functional design and facilities are found within the boundaries of these parks and focus on meeting the recreation needs of large sections of the community. Preservation of unique landscapes and open space is possible on a grand scale in community parks, and management of community parks require special attention and fiscal resources because of the size and amount of facilities and the intensive community use.*

Figure 2: Planned Park and Trail Locations - Updated April 2023



Future Park and Trail Locations

Natural Resource Community Park (A)

The ravine and lake area north of Cottage Grove Ravine Regional Park (Washington County Parks) and east of Ravine Parkway should be retained for community. This park should provide trails and a green edge along the parkway. Water access and views should be a part of this park as this is one of the largest and deepest bodies of water in the city. The land identified is made of a mix of landscapes including water, forest, oak savannah, and farmland. This habitat should be retained and protected through the development of the park.

Community Ballfields (B)

The area in the northeast corner of Ravine Parkway and 80th Street, and west of the the planned wetland/pond should be utilized for active, athletic uses, meeting the City's need for additional field space. Depending on roadway and pond design, the site could accommodate 2-4 additional rectangle (soccer/football/lacrosse) or diamond (baseball/softball) fields.

Neighborhood Parks:

Neighborhood parks are the "building blocks" of a recreation system, providing for the day-to-day recreational needs of nearby residents; neighborhood parks typically serve residents within a ½ mile radius. The Cottage Grove 2040 Comprehensive Plan describes Neighborhood Parks as:

The neighborhood park and open space is the basic unit of the City's park system and is designed to serve as the recreational and social focus of neighborhoods. They include active and passive recreation activities geared specifically for those living within a half mile service area. The park should be centrally located and easily accessible by way of interconnecting trails, sidewalks, or low-volume residential streets. Five acres is the accepted minimum standard necessary to provide space for recreation activities. Seven to ten acres are considered optimal. The site should exhibit physical characteristics appropriate for both active and passive recreation uses including suitable soils, positive drainage, varying topography, and a variety of vegetation and natural resource areas. Sites should be connected to schools and other park system components such as natural resource areas, lakes, ponds, and greenways.

Neighborhood parks have generally been located to:

- Be central to neighborhoods, reducing travel distances and major road crossings for residents
- Connect to and enhance future trail corridors
- Protect and enhance natural resources such as drainageways, ponds, and slopes

The exact location of parks may shift slightly to accommodate development patterns, but in general locations should correspond to the locations identified in the plan and continue to respond to the location criteria listed above.

All neighborhood parks should, at a minimum, include:

- 5 acres (minimum) with 7-10 acres preferred
- a playground
- open field/play space
- a sport court
- Internal trail loop
- picnic tables
- at least 2 sides of street frontage with the wide sides of the park providing the frontage
- Integration with natural resources as appropriate
- Additional features as appropriate

Neighborhood Park C

This park is located on the north side of a small lake and should incorporate water views/observation areas along with the standard neighborhood park features.

Neighborhood Park D

This park is centrally located in an area planned for higher density housing and a commercial node. The park should be located within the residential area. Due to the larger population base served, the park should be on the larger side for neighborhood parks. There is a smaller stand of trees that should be preserved and incorporated into the neighborhood park. If the Military Road extension is abandoned, the corridor may be retained for trail use and the park should be connected to that. Further, this site could support Washington County's Central Greenway Regional Trail Master Plan by acting as a trailhead or rest stop between Cottage Grove Ravine Regional Park and Lake Elmo Park Preserve.

Neighborhood Park E

Like Neighborhood Park D, this park is centrally located in an area planned for mixed use commercial and a mix of residential densities. It also serves a larger population base and should be sized on the larger end. The park is located to include a grove of existing trees and unique topography which gives the park significant elevation above surrounding areas which will provide a great viewshed. The site is also set along the edge of a gasline easement that will eventually contain a trail.

Neighborhood Park F

This park is sited in a way that stormwater could be included in the park design. The site aligns with the start of a draw and should contain a trail to offer views of the restored habitat landscapes of wetlands and grasslands.

Because of the proximity to the proposed community park, the need for Neighborhood Park F should be carefully evaluated in the context of surrounding development and the design of Ravine Parkway. This park location should be considered if the surrounding development contains single family or multi-family homes that need recreational opportunities within safe walking distance. If a safe pedestrian crossing is available to the community park across Ravine Parkway, this location may not be necessary, or may be more of a "Mini Park" as described below.

Neighborhood Park G

This park should provide upland and small ravine features in a location that is easily accessible for the neighborhood. Like Neighborhood Park F, this park would be a good opportunity to implement stormwater "best management practices" such as wetland habitat and additional stormwater storage that can accommodate recreational use or improve the neighborhood vista.

Neighborhood Park H

This park is located along a planned green corridor and will likely serve new development as well as the existing neighborhood to the west. The park location considers the current and future local road network connections to the existing neighborhood, parks and trails. The western edge of the park should reach the easement east of the existing neighborhood. It should also be located to incorporate the US Airmail Aviation Beacon (large concrete arrow) south of 90th Street.

Mini Parks:

In addition to neighborhood parks, mini parks are considered where the development pattern does not support the development of a full sized neighborhood park. These parks should serve the neighborhood in a way that is appropriate to the context. Mini park amenities may include but are not limited to:

- Playground
- Trailhead
- Picnic Area
- Small Turf Play Area

Mini Park I

This park should support the smaller neighborhood north of 70th Street and east of Ravine Parkway. It should include a playground, picnic tables, benches, and internal walking trails.

Mini Park J at The Shoppes at Cottage View

The Shoppes at Cottage View are anticipated to develop as mixed use. This area should be served with a context appropriate mini-park. This park may take the form of a "village green" or other gathering space that supports the commercial and residential uses nearby. Most likely this location would include a playground, resting spaces and gardens.

Mini Park K at the Community Center

The City is planning a recreation center and although much of the facility will be indoors, there may be outdoor supporting spaces such as a playground, picnic areas and landscaped park areas. This will be accessible to the neighborhood and will serve the role of neighborhood park. Cottage Grove Ravine Regional Park has also master planned a destination playground near the west side of the park. The crossing at Keats Avenue will be an underpass for pedestrians and bicyclists which should provide further access to play opportunities to residents west of Keats Avenue. This mini park could serve as a conduit for that recreational connection.

Trails:

Enhanced Trails

Enhanced trails are bike and pedestrian facilities that are located off of the roadway corridor and should include features like landscaping and wayfinding that emphasize their role for recreation. Many of these will be collocated with utility easements or go through parks.

Enhanced Trail Corridors as illustrated are intended to show the connections and general location. Corridor width may vary based on development conditions but should be wide enough to be natural in character as opposed to feeling like a user is in the backyard of homes. Enhanced trails may utilize multiple "lanes" to allow for a more comfortable trail experience for different user types.

Road Corridor Trails

Road corridor trails are focused on providing pedestrians and bicyclists with transportation focused routes. They may be more utilitarian in design and should be located on one or both sides of planned arterials and collector streets. Road Corridor Trails should, to the extent possible, be located within the road right of way.

Snowmobile Trails

Cottage Grove has the unique opportunity of being home to the southern start point of the Star Trail. The Washington County Star Trail Association manages 140 miles of groomed, marked and maintained snowmobile trails that stretch the entire length of the County. Providing access to the Star Trail has been an expressed desire by local leaders and residents.

Snowmobile trails are intended to connect residents to the larger Star Trail system to the east of the study area. Setbacks and buffer space from Keats should be able to facilitate that movement. It should be noted that when development occurs, speed, noise, and/or stud restrictions may be required until snowmobilers are able to reach the rural trail system. These routes may shift eastward gradually as new development occurs.

City Council Action Request

14.A.

Meeting Date	1/10/2026
Department	Finance
Agenda Category	Action Item
Title	Financial Management Plan Review
Staff Recommendation	Provide feedback on the Financial Management Plan.
Budget Implication	N/A

Attachments

1.	CC Memo Long-Term Financial Management Overview for Strategic Planning Meeting
2.	Original FMP from 2023
3.	Updated FMP based on the approved 2026 Budget
4.	5 and 10 year schedule Updated 12-22-2025 based on Fire Study
5.	City Taxes for Median Home for Cities in Washington County
6.	City Taxes for Median Home for Growing Cities greater than 40,000
7.	Levy per capita Cities in Washington County
8.	Levy per capita Growing Cities

To: Honorable Mayor and City Council Members
Jennifer Levitt, City Administrator

From: Brenda Malinowski, Finance Director

Date: December 30, 2025

Subject: **LONG-TERM FINANCIAL MANAGEMENT PLAN (FMP)**

Introduction
Traditionally, many cities have taken a short-term view for financing city operations. The one-year budget is still the norm. However, Cottage Grove utilizes an upstream budget approach. A longer-term view of financing operations through the use of a ten-year Financial Management Plan (FMP) was created and utilized for the first time during the 2024 budget process. The FMP includes all tax-supported funds. It integrates existing debt, the Capital Improvement Plan, equipment replacement, future debt, future staffing needs, tax base growth and future operating expenses. The FMP assures that capital, maintenance, and staffing needs are met with sustainable funding sources.

The FMP is used to level out expenditures and bond costs to smooth out tax increases, ensure funding is available to carry out the City's vision, and as a tool to better understand effects of budget decisions. It helps to manage expectations, maintain assets and fund balances, and reduces reactivity during an unpredictable fiscal environment.

While the use of the FMP has proven to be a strategic budget tool, it is necessary to review the assumptions periodically to verify whether the assumptions are still relevant or need to be updated in the plan. This review will begin during the strategic planning meeting based on Council feedback and direction.

Since the FMP is a financial tool, certain future assumptions were needed in preparation of the original document. These assumptions included a 2% increase in revenue, 4% increase in expenditures per year, 5% increase in internal service fund allocations, and a 2% increase in the existing tax base. New construction is based on assumptions made by planning, finance, and administration.

The following funds are included in the Cottage Grove FMP.

Governmental Funds	
General Fund **Special Revenue Funds** • Ice Arena Fund • Golf Course Fund • EDA/HRA **Internal Service Funds** • Insurance Fund • Fleet Fund • IT Fund • Compensated Absences	**Capital Project Funds** • Equipment Replacement Fund • Pavement Management Fund • Park Improvement Fund • Park Trust Fund • ED Trust • Municipal Building Fund **Debt Service Funds** • All debt service funds

Outcomes
When the City issued bonds in 2023, the FMP was included with the financial documents provided to S&P Global. In 2023, the city attained a AAA bond rating for the first time.

Through the preparation of the FMP and discussion, there were several recommendations that have been implemented.

- New fund balance policy that allows greater flexibility
  - Previous policy was 55% of subsequent year's budget
  - Current policy is 45% to 55% of the subsequent year's budget
- Funds are budgeted (budget contingency) each year to meet fund balance goals or to be utilized for unforeseen budget expenditures.
- Increased funding for equipment in future years of the FMP to meet service levels
  - The property tax levy for equipment has increased from $319,100 in 2023 to $927,700 in 2026. The property tax levy for equipment will be $1,727,700 in 2030.
  - The 2024-2026 Equipment Replacement fund budget funded $1M, $2.7M, and 2.4M in equipment replacement respectively.
- All Internal service funds will have recovered their operating position and will have a positive fund balance at the end of ten years.
- Consistent funding for pavement management and street projects identified in the CIP
- Increased property tax levies were identified for EDA and the Parks Capital levy. The EDA levy in 2024 was $275,000 and has grown to $330,000 (combination of EDA and HRA). The park's capital levy began in 2026 in the amount of $190,000.

The FMP was utilized during the 2024-2026 budget processes. The FMP targets a property tax increase on the median home of $100 but $110 was needed in the first year of the plan.

Original FMP from 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Median Home	$110	$100	$100	$100	$100	$100	$99	$98	$72

(2024-2026 average $103.33)

Prepared as part of 2026 Budget	Actual 2024	Actual 2025	2026	2027	2028	2029	2030	2031	2032
Median Home	$71	$90	$135	$112	$103	$93	$83	$102	$78

(2024-2026 average is $98.67). Note-2027-2032 numbers do not include items that have financial impact discussed during the 2026 Strategic Planning session.

Discussion
While the FMP has been updated each year as part of the budget process, it is timely to review the assumptions and objectives of the FMP. These objectives may have changed since the creation of the FMP in 2022. In addition, several Strategic Planning agenda session items have financial implications that have not been included in the FMP.

Based on the 2026 property tax levy, each $149,425 increase or decrease in the property tax levy for 2027 is a property tax levy change of .50% and a change of $7.89 on the median home.

As part of the discussion of the FMP, the following items should be considered, and feedback should be given.

1. Personnel
   As part of the Community Development strategic plan and the Fire Standards of Coverage Study, there are recommendations for increased staffing. In addition, there have been assumptions made regarding other staffing needs in the next three years and updates to COLA for all existing positions.

Position	Start Year
Code Enforcement Officer	2027
Seasonal Building Inspector-6 month	2027
Accountant-50% General Fund	2027
Police Officer for case management (50th)	2028
Parks Maintenance PSW	2028
Human Resources Director	2029
Streets PSW	2029
Firefighter/Paramedic (17th)	2027
Firefighter/Paramedic (18th)	2027
Firefighter/Paramedic (19th)	2027
Firefighter/Paramedic (20th)	2028
Firefighter/Paramedic (21st)	2028
Firefighter/Paramedic (22nd)	2029
Firefighter/Paramedic (23rd)	2029
Firefighter/Paramedic (24th)	2029

The positions listed above likely cannot be funded in the current $100 goal of the FMP.

The personnel impacts to the property tax levy are listed below.

	2027	2028	2029
Property tax levy increase	$773,480	$662,020	$931,900
Additional Median home increase	$40	$28	$42

Note-Other costs including vehicles, equipment, OT, etc. are not included above.

2. Existing and future debt

There are several projects in the current CIP and current FMP which are funded with bonds.

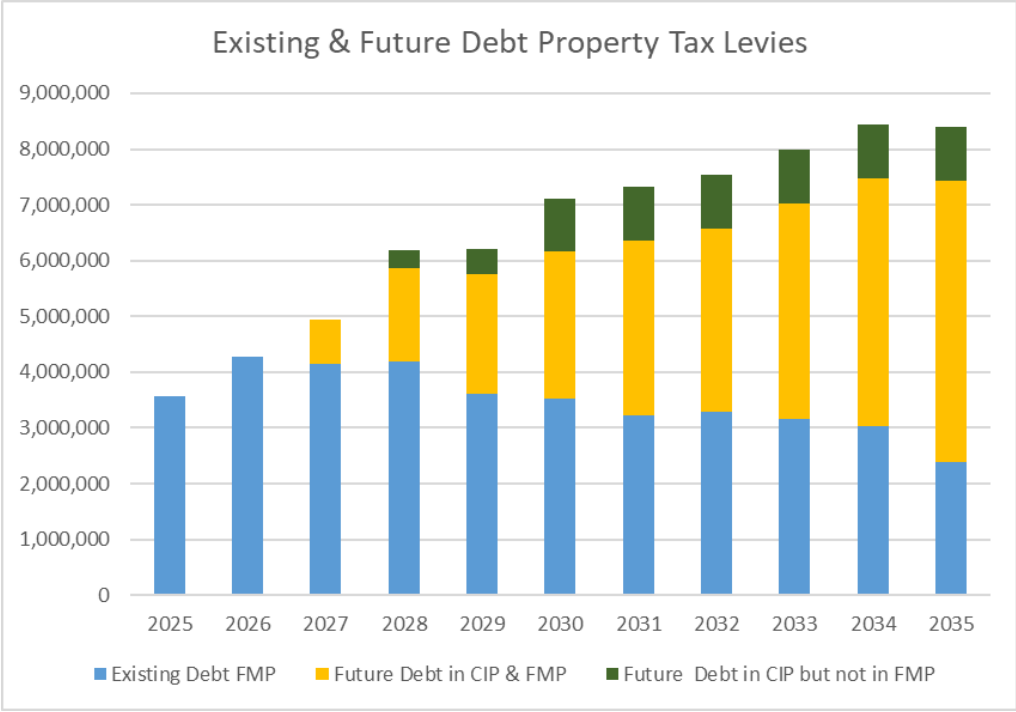
Bond Issuance Amounts Identified in FMP

Project	2026	2027	2028	2029	2030	Total
Pavement Management	2,420,000	3,045,000	2,668,000	3,918,000	6,229,000	18,280,000
CSAH 19 & TH 61		2,621,250	198,750			2,820,000
Shoppes at Cottage View			377,000	2,760,000	860,000	3,997,000
Harkness Avenue					938,000	938,000
Jamaica (Rose of Sharon to Military)			3,000,000			3,000,000
Oltman-lacrosse complex&parking lot	2,300,000					2,300,000
Kingston Park		5,000,000				5,000,000
Ice Arena						-
Dunes Park						-
Equipment	1,310,000	345,000				1,655,000
Total Bonds	6,030,000	11,011,250	6,243,750	6,678,000	8,027,000	37,990,000

There are also two projects in the current CIP but not in the current FMP which are to be funded with bonds. These projects are the Ice Arena remodeling ($1.5M in 2027), and Mississippi Dunes Park ($10.5M in 2027-2029). If these projects are to move forward and require a debt issuance, they will need to be added to the FMP. Property tax impacts for issuing debt for the Ice Arena remodeling and Mississippi Dunes Park are listed below.

	2027	2028	2029	2030
Property tax levy increase	$0	$319,100	$136,700	$638,200
Additional Median home increase	$0	$16	$5	$29

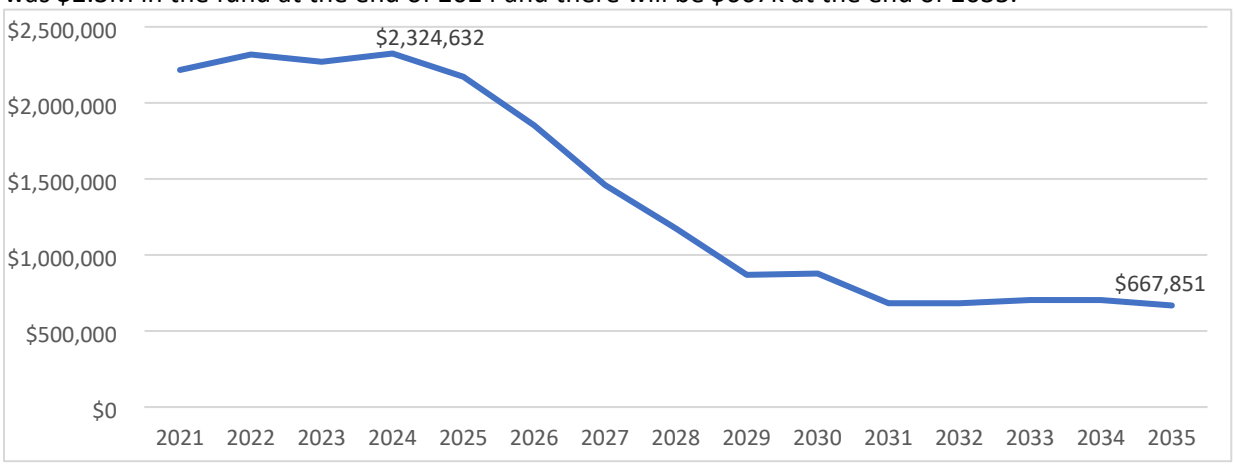
In the graph below, existing debt is shown as blue, bonds that have been included in the CIP and current FMP are shown in yellow. The Ice Arena remodeling and Mississippi Dunes Park are shown in green.



If projects which require debt issuance are postponed to a future year, the debt property tax levy could be decreased. For example, a 15-year debt issuance for $2.3 million impacts the property tax levy by approximately $200,000 or $10.56 on the median home.

Each individual bond issue contains a required property tax levy amount in the bond documents. These required property tax levies can be increased or decreased depending on the fund balance available for future bond payments. Each fund is analyzed each year to determine if the property tax levy is sufficient for the following year's bond payment.

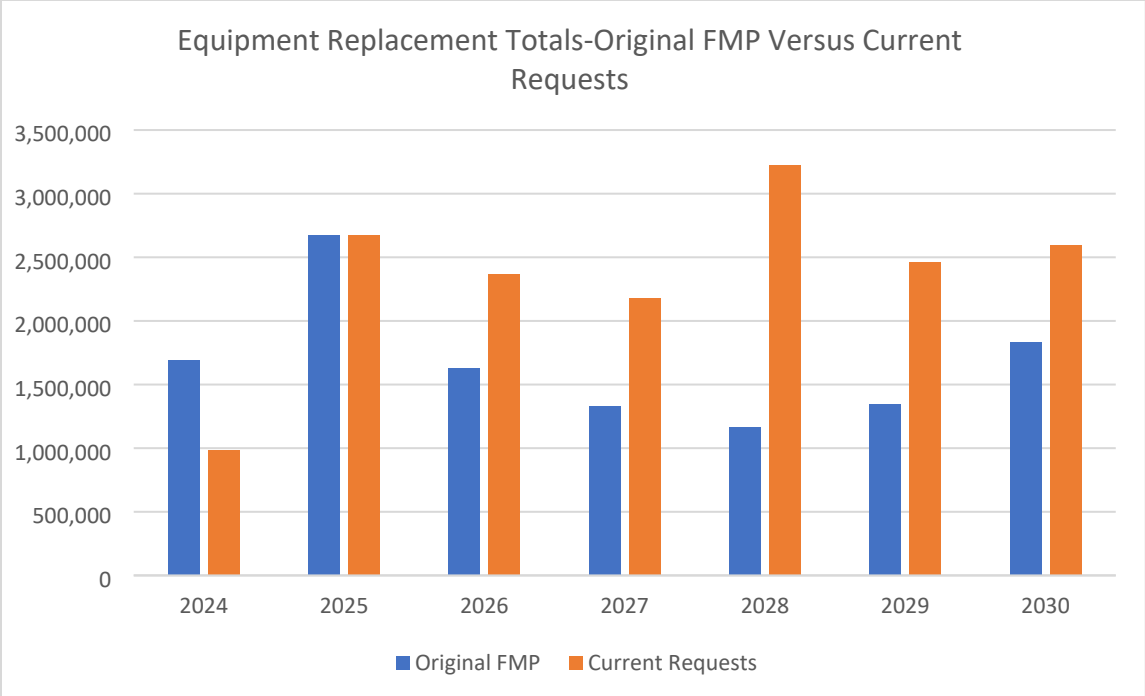
A strategy of the FMP is to utilize the Closed Debt Fund to lower the debt property tax levy impact. There was $2.3M in the fund at the end of 2024 and there will be $667k at the end of 2035.



3. Equipment

The property tax levy for equipment replacement for 2026 is $927,700 with the same amount for 2027. There are sufficient funds to purchase the 2027 equipment ($1,417,900) that was identified in the 2026 budget cycle with only $150,000 in equipment requests to push to a future year. However, the Fire Standards of Coverage Study includes the replacement of engine 4 in 2027 for $1,000,000. This engine is not included in the $1,417,900 equipment above.

While the property tax levy for equipment in the FMP will increase to $1,727,700 in 2030 and $2,527,700 in 2035, continued analysis of equipment replacement will need to continue due to rising equipment costs. For example, the forestry service aerial truck was included in the original FMP at $120,000 and the replacement amount per the 2026 budget is $210,000.

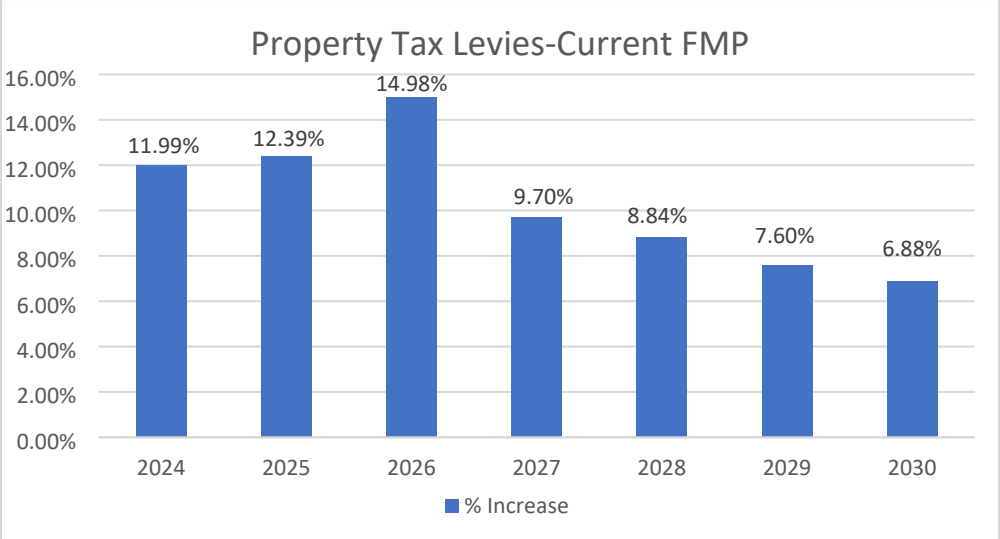


The property tax impact for issuing equipment certificates in 2028 for the replacement of Engine 4 and for increasing the property tax levy for current equipment replacements requests are listed below.

	2027	2028	2029	2030
Property tax levy increase	$150,000	$500,000	$300,000	$-
Additional Median home increase	$8	$24	$18	$-

4. Property Tax Levies

The property tax levy has increased in the last several years. While Cottage Grove compares favorably to other cities, increases to the property tax levy should continue to be evaluated.



5. Growth assumptions

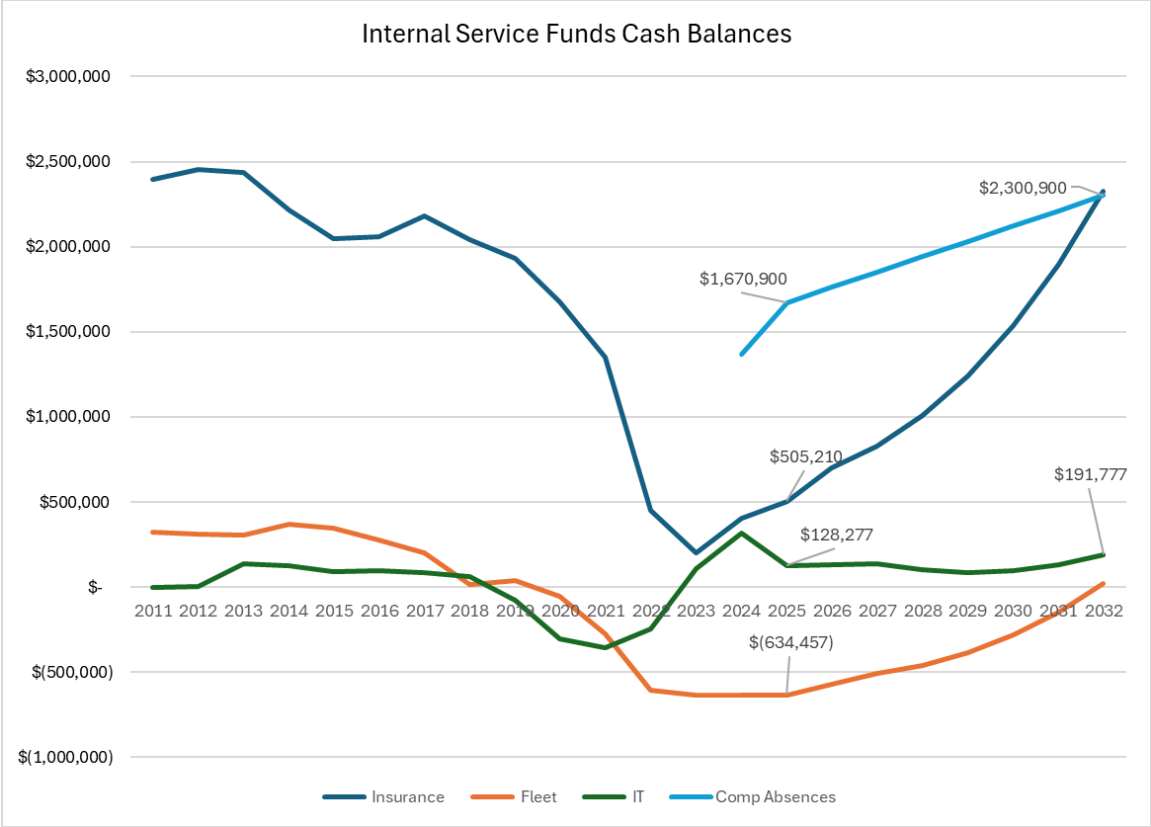
Appreciation of existing properties is set at 2%. New construction assumptions are listed below.

	2027 (Built in 2025)	2028	2029	2030	2031	2032
New Construction	$147,490,000	$160,000,000	$174,800,000	$175,640,000	$157,990,000	$139,640,000

Note-2028 and beyond will be reevaluated as part of the budget process.

6. Internal Service Funds

The Internal Service Funds continue their recovery. Past and future cash balances are shown in the chart. Cash balances continue to recover, and all funds will have positive cash by 2032.



While the internal service funds are performing well, full recovery of the funds does not occur until 2032. Therefore, there appears to not be an opportunity to utilize cash balances in these funds for other purposes.

7. Special property tax levies are included in the current FMP as follows:

Special Levies	2024	2025	2026	2027	2028	2029	2030	2031	2032
Muni. Building	$300,000	$300,000	$450,000	$450,000	$500,000	$500,000	$500,000	$500,000	$650,000
Equipment	$319,100	$321,000	$927,700	$927,700	$1,127,700	$1,327,700	$1,727,000	$2,127,700	2,227,700
EDA	275,000	137,500	187,500	237,500	287,500	1,000,000	1,100,000	1,300,000	1,500,000
EMS			70,000	74,700	78,400	82,300	86,400	90,700	95,200
Parks Capital			190,000	190,000	190,000	190,000	190,000	190,000	190,000
Total	**894,100**	**758,500**	**1,825,200**	**1,879,900**	**2,183,600**	**3,100,000**	**3,604,100**	**4,208,400**	**4,662,900**
HRA Levy		137,500	142,500	146,000	196,000	246,000	296,000	346,000	396,000

Changes to these levies in 2027 and beyond can be evaluated and changed including the Equipment, EDA, HRA, and EMS levies.

Possible Options for changes to the current FMP

One option is to fund the personnel as proposed, issue debt for the Ice arena remodeling and Mississippi Dunes Park as presented in the CIP, to issue equipment certificates for Engine 4, and to increase the equipment replacement property tax levy to cover current replacement requests. The impact of this option is below.

Median Home	2027	2028	2029	2030	2031	2032
Current FMP Increase	$112	$103	$93	$83	$102	$78
Personnel Changes	$40	$28	$42	$3	$3	$3
Debt Issuance Changes	-	$16	$5	$29	-	-
Equipment	$8	$24	$18	-	-	-
Total Increase	$160	$171	$158	$115	$105	$81
City Taxes	$1,570	$1,741	$1,899	$2,014	$2,119	$2,200
Property Tax Levy Increase	12.79%	12.99%	11.04%	7.98%	6.51%	5.06%

Other options are to:

- Change any of the hire dates for proposed personnel positions
- Change project timelines in order to change the timing of debt issuance for these projects
- Increase or decrease special property tax levies
- Change timing of equipment replacement purchases

It is important to note that very preliminary tax capacity numbers will not be available from Washington County until March. At that time, we will have a better understanding of the taxable market value increase on the median home. In addition, estimated numbers will be released by the County during the summer.

Attachments

- Original FMP from 2023
- Updated FMP based on the approved 2026 Budget
- Equipment Replacement Schedule
- Property tax on median home for comparable cities
- Property tax levy per capita for comparable cities

CITY OF COTTAGE GROVE
Financial Management Plan-Original from February 2023
Long Range Budget Projections

	Inflation Assumptions									
1	Revenue (Non-property tax)	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2	Interest Earnings	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
3	Expenses (Non-ISF Charges)	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
4	CIP Inflation Factor	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%

GEN PROPERTY TAX LEVY AND TAX IMPACT

	GENERAL FUND	2024	2025	2026	2027	2028	2029	2030	2031	2032
				Projected						
66	**General Fund Operating Tax Levy**	**18,491,671**	**20,049,777**	**21,391,236**	**22,847,431**	**24,389,950**	**25,968,896**	**27,291,987**	**29,113,387**	**29,935,092**
67	Annual Increase	5.8%	8.4%	6.7%	6.8%	6.8%	6.5%	5.1%	6.7%	2.8%
87	**Total Other Special Levies**	**4,223,975**	**5,468,214**	**6,686,858**	**7,835,489**	**8,965,674**	**10,060,890**	**11,504,415**	**12,276,856**	**13,528,710**
88	**Total Tax Levy**	**22,715,646**	**25,517,991**	**28,078,094**	**30,682,920**	**33,355,624**	**36,029,785**	**38,796,402**	**41,390,243**	**43,463,802**
89	Increase/(Decrease) in Total Tax Levy	10.00%	12.34%	10.03%	9.28%	8.71%	8.02%	7.68%	6.69%	5.01%
90	Fiscal Disparity Distribution	(2,503,588)	(2,697,592)	(2,859,608)	(3,013,442)	(3,159,481)	(3,298,309)	(3,427,900)	(3,550,257)	(3,662,611)
91	**Net Levy to Taxpayers**	**20,212,058**	**22,820,399**	**25,218,486**	**27,669,478**	**30,196,142**	**32,731,476**	**35,368,502**	**37,839,986**	**39,801,190**
92										
93	Existing Tax Base	54,214,078	56,851,546	60,545,176	63,486,599	66,432,599	69,442,548	72,425,324	75,558,992	78,356,098
94	Existing TIF Districts Decertifying	-	1,244,521	-	43,690	-	22,512	251,683	-	-
95	New Growth Net Tax Capacity	1,522,732	1,261,948	1,696,588	1,599,710	1,648,330	1,540,160	1,400,436	1,260,712	1,178,940
96	Total Net Tax Capacity	55,736,810	59,358,015	62,241,764	65,129,999	68,080,929	71,005,220	74,077,443	76,819,704	79,535,038
97	**Urban Tax Rate on Net Tax Capacity**	**36.357%**	**38.540%**	**40.612%**	**42.579%**	**44.449%**	**46.196%**	**47.844%**	**49.359%**	**50.142%**
98	Urban Tax Rate % Change	7.74%	6.00%	5.38%	4.84%	4.39%	3.93%	3.57%	3.17%	1.59%
99	City Taxes on Median Home	1,197	1,297	1,397	1,497	1,598	1,697	1,796	1,894	1,966
100	$ Tax Increase/(Decrease)	$ 110	$ 100	$ 100	$ 100	$ 100	$ 100	$ 99	$ 98	$ 72
101	% Tax Increase / (Decrease)	10.15%	8.36%	7.73%	7.17%	6.69%	6.23%	5.84%	5.44%	3.81%

City Of Cottage Grove

Financial Management Plan Summary-Current based on Approved 2026 Budget

Inflation Assumptions														
Revenue (non-property tax)					2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interest earnings					1.25%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Expenditures					4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Internal Service Fund Allocation					5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Administration Fee for Enterprise Funds					3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

	2023 Actual	2024 Actual	2024 Budget	2025 Budget	2026 Projected	2027 Projected	2028 Projected	2029 Projected	2030 Projected	2031 Projected	2032 Projected	2033 Projected	2034 Projected	2035 Projected
Property Tax Levies														
Total General Fund Levy														
General Fund	17,418,844	18,454,278	18,567,010	21,667,200	23,781,200	25,958,900	27,636,840	29,536,198	31,277,174	33,340,168	35,029,383	36,669,639	38,353,228	40,111,149
Total General Fund Levy	**17,418,844**	**18,454,278**	**18,567,010**	**21,667,200**	**23,781,200**	**25,958,900**	**27,636,840**	**29,536,198**	**31,277,174**	**33,340,168**	**35,029,383**	**36,669,639**	**38,353,228**	**40,111,149**
					9.76%	**9.16%**	**6.46%**	**6.87%**	**5.89%**	**6.60%**	**5.07%**	**4.68%**	**4.59%**	**4.58%**
Other Special Levies														
Municipal Building Fund Levy	250,135	298,364	300,000	300,000	450,000	450,000	500,000	500,000	500,000	500,000	650,000	800,000	950,000	1,100,000
EDA Levy	124,999	273,409	275,000	137,500	187,500	237,500	287,500	1,000,000	1,100,000	1,300,000	1,500,000	1,500,000	1,500,000	1,500,000
HRA Levy	-	-	-											
EMS Levy					70,000	74,700	78,400	82,300	86,400	90,700	95,200	100,000	105,000	110,300
Equipment Levy	-	317,163	319,100	321,000	927,700	927,700	1,127,700	1,327,700	1,727,700	2,127,700	2,227,700	2,327,700	2,427,700	2,527,700
Parks Capital Levy	-	-	-	-	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000
Total Special Levies	**375,134**	**888,936**	**894,100**	**758,500**	**1,825,200**	**1,879,900**	**2,183,600**	**3,100,000**	**3,604,100**	**4,208,400**	**4,662,900**	**4,917,700**	**5,172,700**	**5,428,000**
Current Debt Service Levies														
2015A Bonds (Pavement Management)	299,552	298,350	300,000	324,000	318,300	318,100	322,000	336,900	350,500	-	-	-	-	-
2016A Bonds (Ice Arena)	220,023	218,819	220,000	220,000	200,000	100,000	-	-	-	-	-	-	-	-
2016B Bonds (Pavement Management)	199,785	198,907	200,000	200,000	200,000	250,000	250,000	250,000	250,000	250,000	250,000	125,000	-	-
2017A Bonds (Fire Station)	609,703	606,696	610,000	610,000	510,000	510,000	610,000	610,000	610,000	610,000	610,000	610,000	610,000	610,000
2018A Bonds (Ravine Parkway)	349,486	248,682	250,000	100,000	100,000	50,000	150,000	500,000	500,000	550,000	600,000	600,000	600,000	-
2019A Bonds (HERO Center)	249,715	248,632	250,000	296,000	294,200	297,000	196,400	295,500	294,500	293,300	297,100	295,400	293,600	297,000
2019B Bonds (Ice Arena Equipment)	349,552	348,081	350,000	348,800	350,100	351,000	352,000	-	-	-	-	-	-	-
2021A Bonds (Pavement Management)	244,354	228,720	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000
2021B Bonds (Pavement Management&Hinton)	264,480	528,203	531,240	537,500	536,600	535,200	539,400	-	-	-	-	-	-	-
2023A Bonds (Improvement & Tax Abatement)	-	537,666	540,950	151,200	341,000	390,450	439,400	388,000	541,400	538,910	541,300	543,000	538,820	539,500
2024A Bonds (PM, SROP, & Equipment)	-	181,193	182,300	547,300	549,400	450,800	446,100	346,200	550,700	548,900	546,300	553,400	548,700	485,500
2025A Bonds	-	-	-	-	649,000	656,900	652,700	657,900	199,600	203,800	207,500	210,600	218,500	220,400
Total Debt Service Levies	**2,786,650**	**3,643,949**	**3,664,490**	**3,564,800**	**4,278,600**	**4,139,450**	**4,188,000**	**3,614,500**	**3,526,700**	**3,224,910**	**3,282,200**	**3,167,400**	**3,039,620**	**2,382,400**
Future Debt Service Levies														
Pavement Management	-	-	-	-	-	210,500	384,200	527,500	761,300	1,175,500	1,620,600	2,083,500	2,565,000	3,065,700
Street Debt	-	-	-	-	-	-	238,900	565,000	816,600	909,900	1,007,000	1,108,000	1,213,100	1,322,300
Equipment Certificates	-	-	-	-	-	384,900	384,900	384,900	384,900	384,900	-	-	-	-
Park Improvements	-	-	-	-	-	209,700	665,500	665,500	665,500	665,500	665,500	665,500	665,500	665,500
Total Future Debt Service Levies	**-**	**-**	**-**	**-**	**-**	**805,100**	**1,673,500**	**2,142,900**	**2,628,300**	**3,135,800**	**3,293,100**	**3,857,000**	**4,443,600**	**5,053,500**
Total Debt Service Levies	**2,786,650**	**3,643,949**	**3,664,490**	**3,564,800**	**4,278,600**	**4,944,550**	**5,861,500**	**5,757,400**	**6,155,000**	**6,360,710**	**6,575,300**	**7,024,400**	**7,483,220**	**7,435,900**
Total Tax Levies	**20,580,628**	**22,987,163**	**23,125,600**	**25,990,500**	**29,885,000**	**32,783,350**	**35,681,940**	**38,393,598**	**41,036,274**	**43,909,278**	**46,267,583**	**48,611,739**	**51,009,148**	**52,975,049**
Percent Increase In Gross Levy	12.60%	11.99%		12.39%	14.98%	9.70%	8.84%	7.60%	6.88%	7.00%	5.37%	5.07%	4.93%	3.85%

City Of Cottage Grove

Financial Management Plan Summary-Current based on Approved 2026 Budget

Inflation Assumptions

Revenue (non-property tax)	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interest earnings	1.25%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Expenditures	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Internal Service Fund Allocation	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Administration Fee for Enterprise Funds	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

	2023 Actual	2024 Actual	2024 Budget	2025 Budget	2026 Projected	2027 Projected	2028 Projected	2029 Projected	2030 Projected	2031 Projected	2032 Projected	2033 Projected	2034 Projected	2035 Projected
Fiscal Disparity Distribution	(2,763,877)	(2,687,877)	(2,687,877)	(2,861,847)	(3,334,097)	(3,551,361)	(3,748,288)	(3,899,911)	(4,035,585)	(4,150,559)	(4,289,067)	(4,367,010)	(4,437,311)	(4,516,793)
Net Levy To Taxpayers	17,816,751	20,299,286	20,437,723	23,128,653	26,550,903	29,231,989	31,933,652	34,493,686	37,000,689	39,758,719	41,978,516	44,244,728	46,571,837	48,458,256
Existing Tax Base	52,885,833	62,216,047	62,216,047	62,300,128	67,133,212	68,475,876	71,425,426	74,987,846	78,274,072	81,633,301	84,885,162	88,019,725	91,141,608	94,247,467
Existing TIF Districts Decertifying						43,690	251,683	-	-	-	-	-	-	-
New Growth Net Tax Capacity						1,505,361	1,840,388	1,751,440	1,758,576	1,587,446	1,408,686	1,334,793	1,257,869	1,256,438
Total Net Tax Capacity	52,885,833	62,216,047	62,216,047	62,300,128	67,133,212	70,024,927	73,517,496	76,739,286	80,032,648	83,220,747	86,293,848	89,354,518	92,399,477	95,503,905
						2.24%	2.63%	2.38%	2.29%	1.98%	1.69%	1.55%	1.41%	1.36%
Tax Rate On Tax Capacity	**33.897%**	**32.909%**	**32.909%**	**37.199%**	**39.630%**	**41.827%**	**43.518%**	**45.033%**	**46.316%**	**47.862%**	**48.732%**	**49.516%**	**50.403%**	**50.740%**
Tax Rate % Change		-2.91%		13.03%	6.54%	5.54%	4.04%	3.48%	2.85%	3.34%	1.82%	1.61%	1.79%	0.67%
Existing Tax Base Inflation						2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

	2023 Actual	2024 Actual	2024 Budget	2025 Budget	2026 Projected	2027 Projected	2028 Projected	2029 Projected	2030 Projected	2031 Projected	2032 Projected	2033 Projected	2034 Projected	2035 Projected
City Taxes on Median Home														
Market Value			$ 365,200	$ 357,100	$ 369,200	$ 376,600	$ 384,100	$ 391,800	$ 399,600	$ 407,600	$ 415,800	$ 424,100	$ 432,600	$ 441,300
% Market Value Increase/(Decrease)				-2.22%	3.39%	2.00%	1.99%	2.00%	1.99%	2.00%	2.01%	2.00%	2.00%	2.01%
City Property Taxes			$ 1,184.77	$ 1,274.81	$ 1,410.43	$ 1,522.08	$ 1,619.30	$ 1,713.51	$ 1,801.69	$ 1,903.47	$ 1,981.93	$ 2,058.38	$ 2,142.12	$ 2,204.63
$ Tax Increase/(Decrease)			$ 71	$ 90	135.62	$ 112	$ 97	$ 94	$ 88	$ 102	$ 78	$ 76	$ 84	$ 63
% Tax Increase / (Decrease)				7.60%	10.64%	7.92%	6.39%	5.82%	5.15%	5.65%	4.12%	3.86%	4.07%	2.92%

Equipment Replacement Fund Equipment

Replacement Based on Replacement Year

2026

21-1839-14	2014 Chrysler	2014	Chrysler	$55,000
21-1247-13	2013 Ford Explorer Squad 1247	2013	Ford	$55,000
31-4001-10	2010 Single-Axle Dump Truck Freightl	2010	Freightliner M2	$360,000
31-8409-16	Holder	2016		$255,000
32-1101-07	GMC Crew Cab Sign Truck C4500	2007	GMC C4500	$220,000
34-8710-18	Bombardier SW4S-F Sidewalk Machin	2019	Prinoth SW4S-F	$100,000
36-6009-07	Ford F550 Forestry Aerial Service Truc	2007	Ford F550	$210,000
41-8704-05	John Deere Gator Turf	2005	John Deere Turf	$35,000
41-6003-14	Isuzu Garbage Truck With Side Loader	2014	Isuzu	$165,000
New	Blower			$14,000
31-8002-91	John Deere 772BH Grader & Wing	1991	John Deere 772BH	$345,000
Squads	Assigned squads (3)			$254,200
Ambulance				$300,000
Total				**$2,368,200**

2027

26-3117-15	2015 ford explorer 3117 squad 2	2015	Ford F550	$75,000
26-3102-18	Engine 4	2012		$1,000,000
21-1646-16	Ford Explorer	2016	FORD EXPLORER	$56,650
21-1641-16	Ford Explorer	2016	FORD EXPLORER	$56,650
41-8502-19	Toro GM4000 Mower	2019	Toro GM4000	$122,000
41-8511-18	16ft Toro GM5910 Mower	2018	Toro GM 5910	$167,000
41-8403-08	John Deere 5625 Tractor	2008	John Deere 5625	$135,000
31-0037-08	Solar arrow board	2008		$10,000
31-0036-08	arrow board	2008		$10,000
31-0050-11	Message Board trailer	2011		$25,000
Squads	Assigned			$523,600
Total				**$2,180,900**

2028

13-1666-16	2016 ford interceptor 1666	2016	Ford Interseptor	$45,000
21-1848-18	Ford Explorer	2018	Ford Explorer	$58,350
21-1750-17	GMC Sierra	2017	GMC	$58,350
21-7041-13	Speed Trailer	2013		$30,000
21-7042-13	Aluminum Barricade trailer	2013		$10,000
15-4300-07	Command Vehicle	2007	Ford Winebago	$750,000
41-1402-15	2015 GMC Sierra WT/41-1402-15	2015	GMC Sierra 2500	$85,000
41-1404-16	2016 Ford F350 1404	2016	Ford F350	$85,000
41-1409-16	2016 Ford F250 1409	2016	Ford F250	$85,000
41-8702-18	Kromer Field Maintainer/Striper	2018	Kromer FC1	$85,000
41-7015-01	Trailer	2001		$12,000
31-1002-16	2016 Ford F250 1002	2016	Ford F250	$85,000

31-8603-13	Tymco Sweeper (air)	2013	Tymco	$340,000
31-7004-06	Trailer/7004	2006		$12,000
31-8402-19	MT Trackless	2019	MT Trackless MT7	$265,000
41-8003-91	Huber	1991		$40,000
34-9007-13	Sno Go Blower	2013		$150,000
31-6002-93	Ford Tandem Water tanker	1993		$350,000
31-0049-09	Trafficx Scorpion Towed Attenuator	2009		$25,000
New	Gator			$36,000
New	Crew Cab Streets			$80,000
Squads	Assigned			$539,226
Total				**$3,225,926**

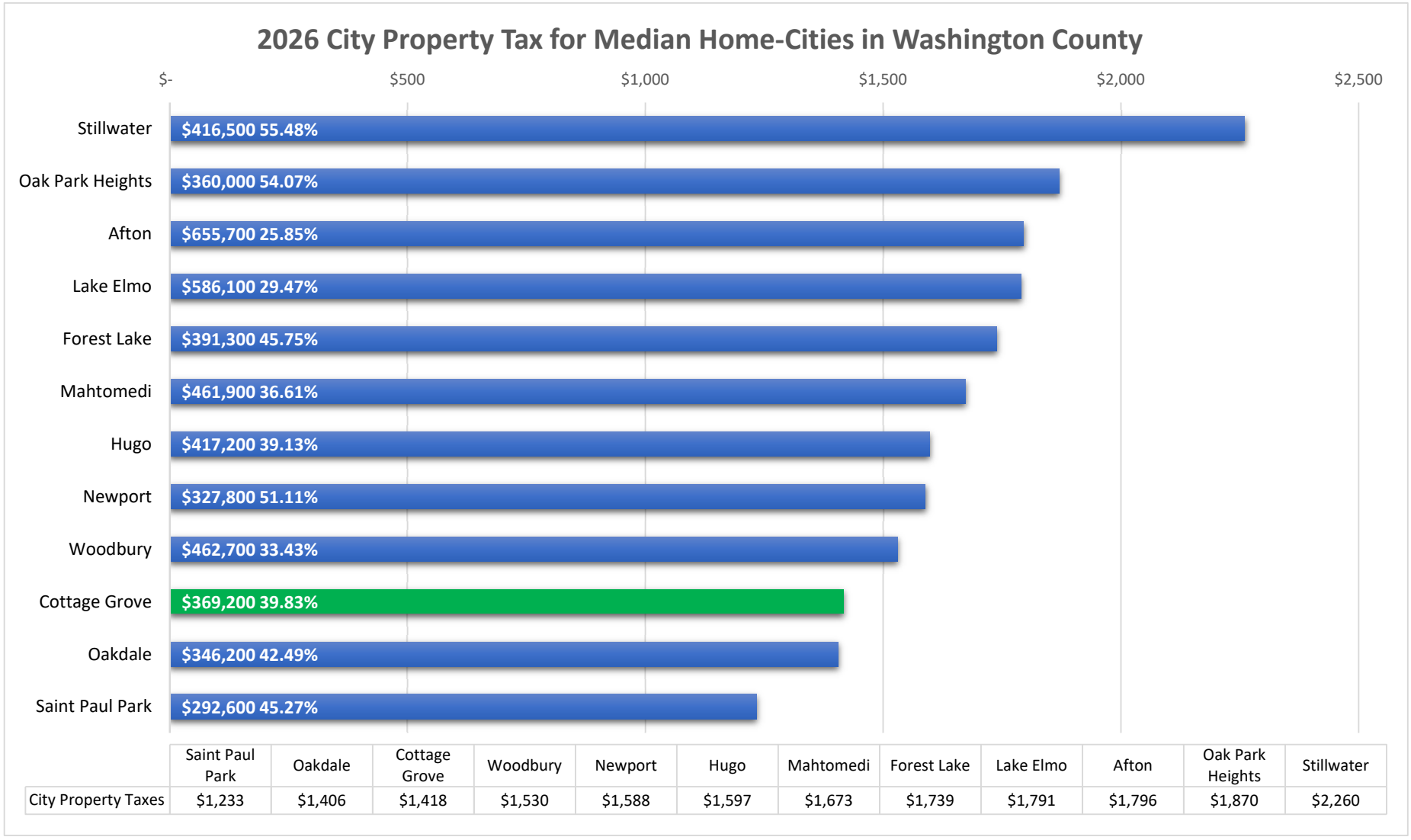
2029

21-1943-19	Dodge Durango	2019	Dodge Durango	$58,000
21-1940-19	Dodge caravan	2019	Dodge	$58,000
15-1901-19	Mobile light generator	2019		$20,000
26-3128-13	2013 pickup Crew Cab Fire Brush	2013	Ford	$200,000
26-3127-17	Ford Explorer 3127	2017	FORD EXPLORER	$75,000
26-0214-14	Utv Polaris 0214	2014	Polaris Ranger Crew	$40,000
SCBA's	SCBA's			$350,000
51-5001-15	GMC Sierra WT/Recreation	2015	GMC Sierra	$70,000
13-1754-17	ford explorer/old squad 1754	2017	Ford Explorer	$55,000
13-5006-17	2017 Ford Escape 5006	2016	Ford Escape	$55,000
41-1701-17	2017 Ford F250 Crew Cab	2017	Ford F250	$85,000
41-8401-16	John Deere Tractor 5115	2016	John Deere 5115	$150,000
41-8407-17	John Deere Tractor 3046R	2017	John Deere 3046R	$50,000
41-8506-21	Toro Groundmaster 4000-T4	2021	Toro 4000-T4	$130,000
41-8706-17	John Deere Pro Gator 2030A	2017	John Deere 2030A	$40,000
31-1009-24	Leased vehicle with state	2024	Ford F150	
31-1005-15	2015 GMC Sierra Wt	2015	GMC Sierra	$85,000
31-6010-16	Stand on Spreader	2016	Exmark Spreader	$13,000
31-8207-16	Caterpillar 926M Loader	2016	Caterpillar 926M	$345,000
32-7016-14	Trailer Single-Axle	2014	Aluma	$20,000
Squads	Assigned			$560,000
Total				**$2,459,000**

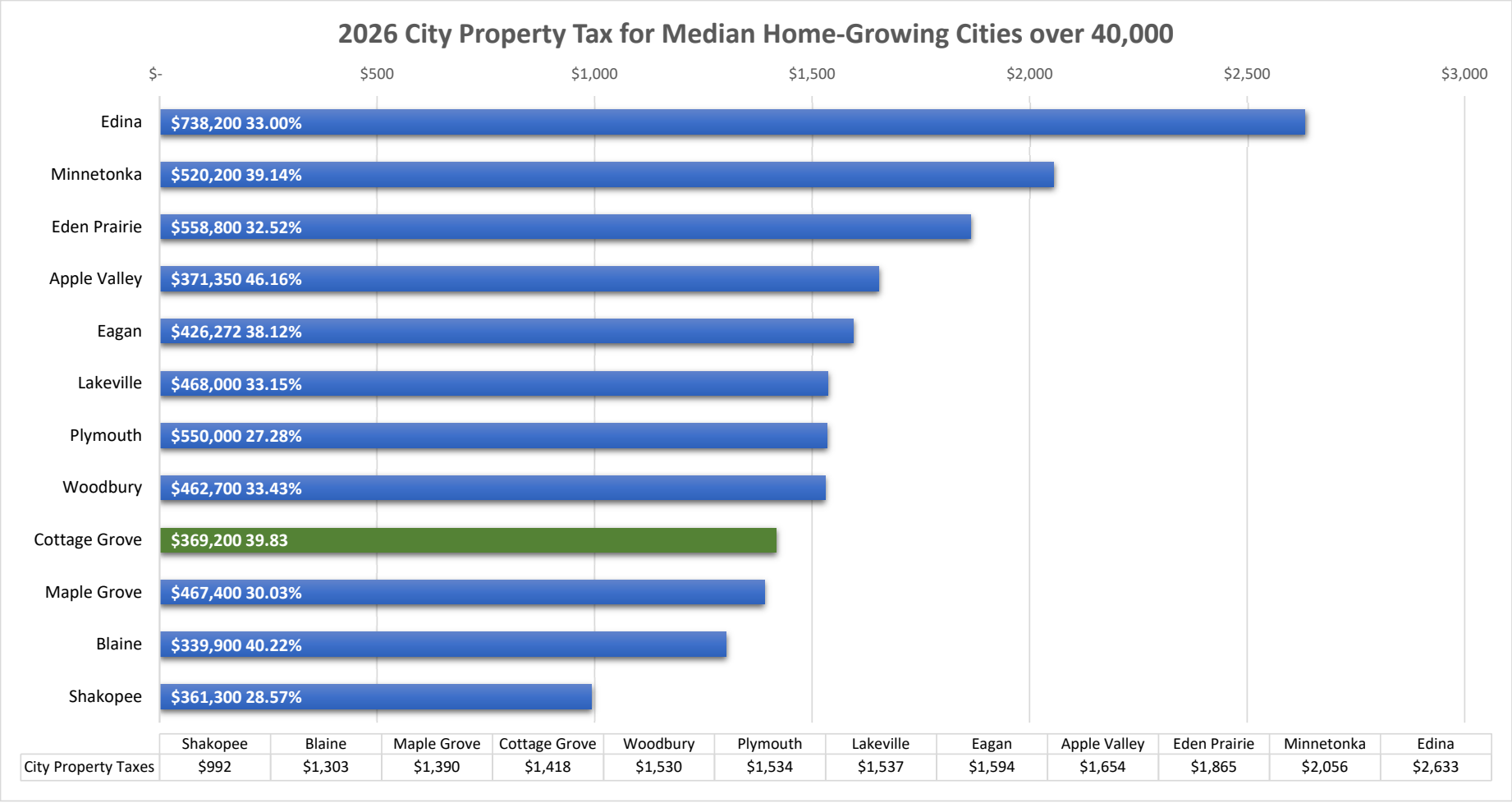
2030

26-344-10	2010 Ford 4wd Pickup F250	2010	Ford F250	$50,000
26-0344-10	Ford pickup	2017	FORD F250	$72,000
26-3102-18	2018 CHEVY TAHOE	2018	Chevy Tahoe	$75,000
14-1704-15	GMC Pickup 1500 Extended Cab	2015	GMC Sierra 1500	$70,000
36-9003-16	2016 Stump Grinder	2016	Bobcat SGX60	$10,000
13-1857-18	Ford Utility old squad 1857	2018	Ford Explorer	$55,000
13-5005-17	2017 Ford Escape 5005	2017	Ford Escape	$55,000
41-7006-15	Trailer Tandem 16 foot	2015	Towmaster T-12DT	$15,000
41-7007-18	Single Axle Kromer Trailer 83 x 12	2018	Sport Warrior	$10,000

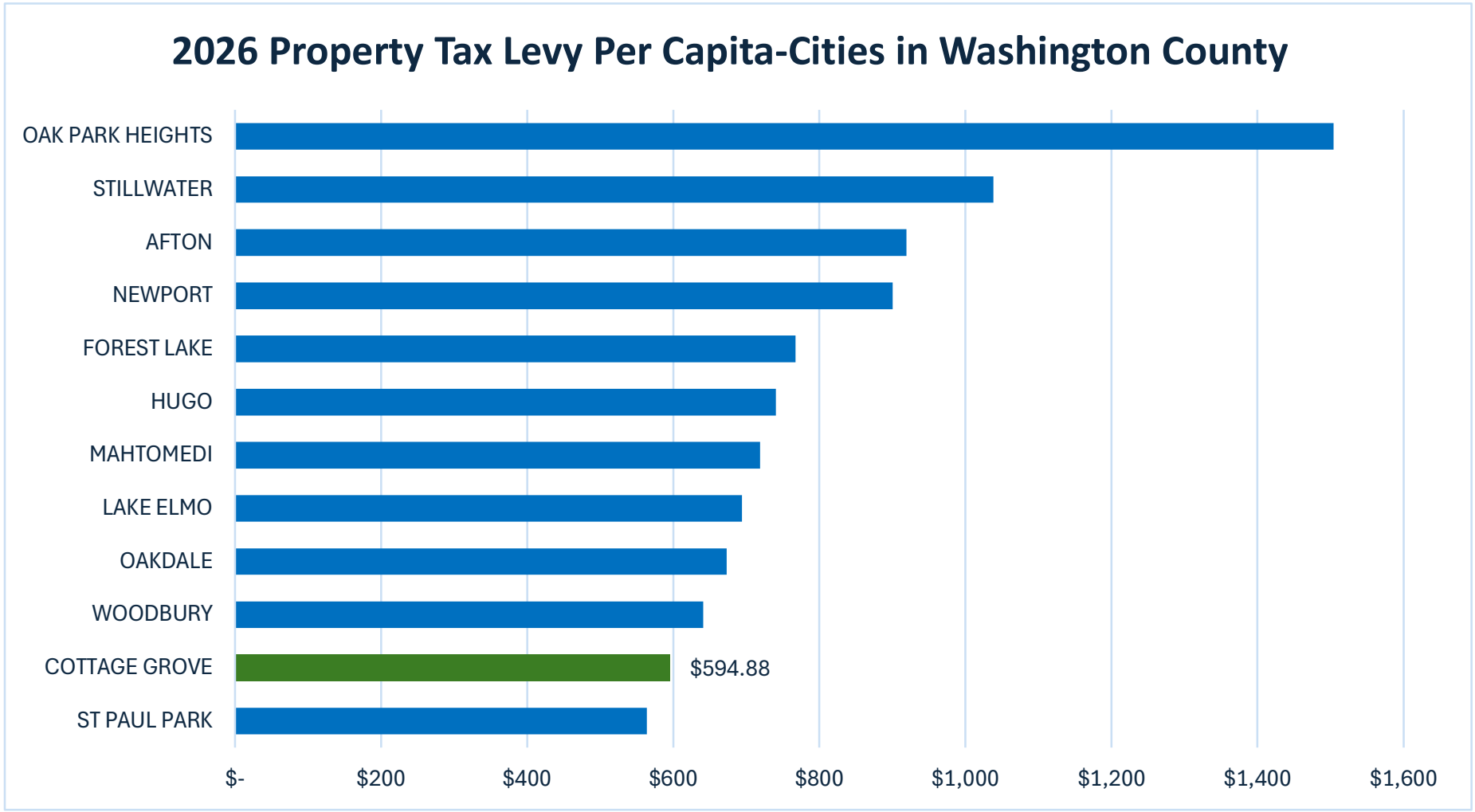
41-7008-18	Tandem Water Tanker Trailer 77 x 12	2018	Road Warrior	$10,000
41-7011-18	Single Axle Utility Trailer 83 x 12/ 41-7	2018	Sport Warrior 8312	$10,000
41-7012-18	Single Axle Utility Trailer 83 x 12	2018	Sport Warrior	$10,000
41-7014-18	Tandem Axle Utility Trailer 83 x 16	2018	Road Warrior	$10,000
41-8507-22	2022 Ferris mower 5ft	2022	Ferris	$40,000
41-8508-22	2022 Ferris mower 5ft	2022	Ferris	$40,000
31-0044-10	Hydroseeder	2010	Finn T75	$38,000
31-4004-15	Dump Truck Single Axle 2015	2015	Western Star 4700S	$360,000
31-4203-15	2015 Ford 1-Ton Dump Truck	2015	Ford F450	$150,000
31-4005-15	Dump Truck Single Axle / 31-4005-15	2015	Western Star 4700S	$360,000
31-8205-18	Cat 926M Loader	2018	Cat 926M	$360,000
32-7001-15	Interstate Enclosed Cargo Trailer 18 F	2015	Interstate Trailer	$10,000
New Mower				$40,000
21-1942-19	2020 Dodge durango	2020	Dodge	$60,000
21-2067-20	Ford F150	2020	Ford	$60,000
21-2197-21	2021 Polaris Ranger	2021	Polaris	$45,000
21-7046-05	Car Hauler Trailer	2005		$10,000
Squads	Assigned			$570,000
Total				**$2,595,000**
	Total			**$12,829,026**

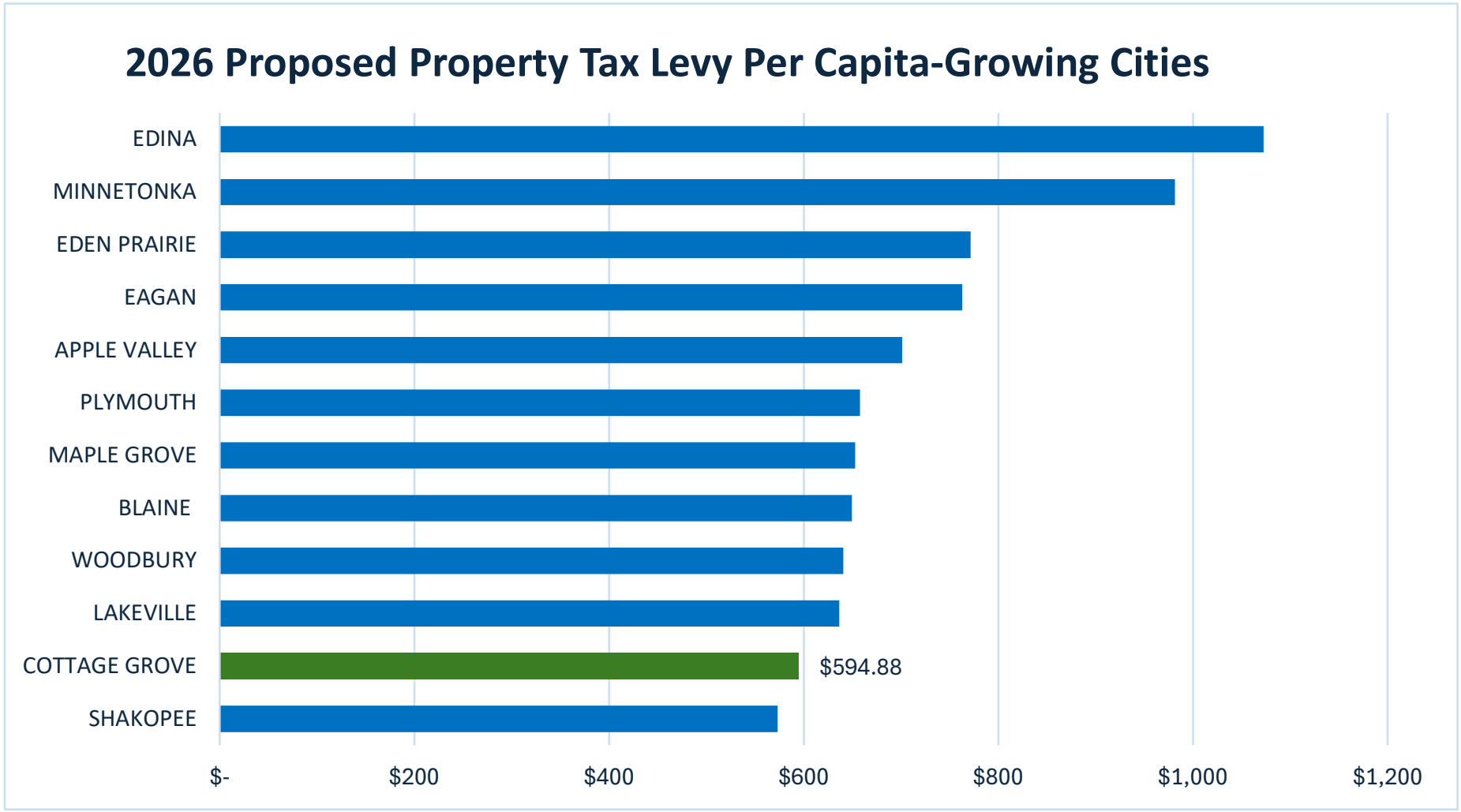


	Saint Paul Park	Oakdale	Cottage Grove	Woodbury	Newport	Hugo	Mahtomedi	Forest Lake	Lake Elmo	Afton	Oak Park Heights	Stillwater
City Property Taxes	$1,233	$1,406	$1,418	$1,530	$1,588	$1,597	$1,673	$1,739	$1,791	$1,796	$1,870	$2,260



	Shakopee	Blaine	Maple Grove	Cottage Grove	Woodbury	Plymouth	Lakeville	Eagan	Apple Valley	Eden Prairie	Minnetonka	Edina
City Property Taxes	$992	$1,303	$1,390	$1,418	$1,530	$1,534	$1,537	$1,594	$1,654	$1,865	$2,056	$2,633


2026 Property Tax Levy Per Capita-Cities in Washington County
OAK PARK HEIGHTS
STILLWATER
AFTON
NEWPORT
FOREST LAKE
HUGO
MAHTOMEDI
LAKE ELMO
OAKDALE
WOODBURY
COTTAGE GROVE
$594.88
ST PAUL PARK
$-
$200
$400
$600
$800
$1,000
$1,200
$1,400
$1,600


2026 Proposed Property Tax Levy Per Capita-Growing Cities
EDINA
MINNETONKA
EDEN PRAIRIE
EAGAN
APPLE VALLEY
PLYMOUTH
MAPLE GROVE
BLAINE
WOODBURY
LAKEVILLE
COTTAGE GROVE
$594.88
SHAKOPEE
$-
$200
$400
$600
$800
$1,000
$1,200