

FIRE & EMERGENCY MEDICAL SERVICES IN GREATER RACINE

Considering Options for the Future



ABOUT THE WISCONSIN POLICY FORUM

The Wisconsin Policy Forum was created on January 1, 2018, by the merger of the Milwaukee-based Public Policy Forum and the Madison-based Wisconsin Taxpayers Alliance. Throughout their lengthy histories, both organizations engaged in nonpartisan, independent research and civic education on fiscal and policy issues affecting state and local governments and school districts in Wisconsin. WPF is committed to those same activities and that spirit of nonpartisanship.

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Since its establishment by Kodak's George Eastman in 1915, the nonprofit Center for Governmental Research (CGR) has supported the municipal and voluntary sectors through objective analysis, mission-critical data and strategic counsel, empowering innovative solutions in the public interest. Headquartered in Rochester, New York, CGR has served communities throughout the Northeast and Great Lakes regions.

PREFACE AND ACKNOWLEDGMENTS

This report was undertaken to provide citizens and policymakers in the Greater Racine region with information on possible service sharing and consolidation options that might improve the quality and cost effectiveness of fire and emergency medical services in their communities. The intent was to lay out a series of options for their consideration, but not to make recommendations on the future of those services in the respective communities.

Report authors would like to thank the fire chiefs and their staff from the Caledonia, Racine, and South Shore fire departments as well as administrators from Racine, Caledonia, Mount Pleasant, and Sturtevant for their assistance in providing information on fire and EMS services and finances and for patiently answering our questions.

In addition, we wish to acknowledge and thank the Johnson Foundation at Wingspread, which provided partial underwriting for this research as part of its "Resilient Communities Initiative," which is focused on building resiliency in the Greater Racine region to improve the social and economic health of all area citizens.



FIRE AND EMERGENCY MEDICAL SERVICES IN GREATER RACINE:

Considering Options for the Future

November 2019

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EXECUTIVE SUMMARY

While considerable attention has been devoted in recent months to the precise nature and scope of the Foxconn development in Racine County, far less attention has been paid to the impacts on local governments in the region. Those governments will need to develop and implement strategies to expand a variety of public services that will be needed to serve the new facility, its workers, and potential ancillary development.

Under the premise that Greater Racine's local governments would be better off working together than individually to address growing service delivery challenges, members of the Resilient Communities Roundtable, comprised of the region's top elected leaders and administrators, commissioned the Wisconsin Policy Forum to conduct a high-level scan of municipal services in the region that would identify which were most conducive to enhanced sharing or consolidation. That initial report – released in September 2018 – identified three such service areas: fire and emergency medical services (EMS), parks and recreation, and public health.

This report represents a next step in the inquiry into the potential benefits associated with intergovernmental cooperation in Greater Racine by providing a detailed analysis of the potential for enhanced sharing or consolidation of fire and EMS services in the region. Commissioned again by the Resilient Communities Roundtable, this report explores the current state of the three existing departments and opportunities for improvement through greater collaboration. The Johnson Foundation, which convenes and facilitates Resilient Communities Roundtable discussions, provided partial underwriting for this study.

If policymakers were seeking to create a new fire and EMS service in 2019 from scratch for eastern Racine County, it likely would not look like the current system. The three existing departments – the Racine Fire Department, Caledonia Fire Department, and South Shore Fire Department – provide a high level of service that has generated very few citizen concerns. Yet, in some cases, municipal boundaries preclude optimal response, and the absence of a regional approach creates some service-level inefficiencies that might be rectified with a more collaborative approach to service delivery.

With development in and around the Foxconn site and continuous pressures on municipal budgets, this is an atmosphere ripe for change. The three fire departments now focus primarily on responding to EMS calls, yet they must be prepared to handle the occasional fire response and maintain readiness for complex rescue or hazard response. Maintaining appropriate capacity to meet each of these responsibilities provides unique challenges for each department. Furthermore, in the future, there will likely be increased costs for personnel and equipment, and a continued trend of increasing call volume as the population ages and the region likely gains both population¹ and higher-risk environments.

This study concludes that the communities *should* work together in a tighter partnership to address the future needs of their constituents. Several potential options are explored, ranging from the status quo to joining into a single department, with several intermediate possibilities.

¹ The Southeast Wisconsin Regional Planning Commission forecasts nearly 50% growth for Caledonia, Mt. Pleasant and Sturtevant over the next 30 years, with little change in Racine. However, these projections were based, in part, on initial employment projections related to Foxconn, which may be adjusted.

CURRENT SITUATION

The three fire departments have a great deal in common. Each provides fire protection and advanced life support ambulance transport using paid, career employees. The departments use similar models to operate with dual purpose personnel (firefighting and EMS). Their work shifts are similar, rotating 24-hour shifts with an average of 56 hours per week.

The departments are funded through a mix of municipal tax revenue, fees for service for ambulance transport, and grants. All of the departments are dispatched by the Racine County 911 Center. Their personnel all receive initial training to the same standards and each department is a member of the Mutual Aid Box Alarm System (MABAS) serving southeast Wisconsin.

Caledonia

The Caledonia Fire Department (CFD) operates out of three fire stations, one of which (Station 10) is shared with the South Shore Fire Department. Each station has an ambulance and one or more firefighting apparatus. The department has 40 sworn firefighters and its 2019 operational expense budget is about \$4.8 million.

CFD provides service for Caledonia and also the nearby villages of Wind Point and North Bay. The protected population is about 27,000 in 48 square miles. In 2018, CFD responded to an average of 6.8 calls per day, 85% of which were for EMS. Call volumes increased by 25% from 2015 to 2018.

CFD's current staffing model requires mutual aid assistance from neighboring departments to have enough manpower to effectively fight a fire. The village's 2020 budget adds six firefighters (mostly funded with a temporary federal grant) to meet a growth in service demand and to help reduce the need to rely on neighboring departments.

Racine

The Racine Fire Department (RFD) operates with 10 front line companies deployed out of six fire stations spread throughout the city. There are three frontline ambulances, four engines, and three quint/truck companies. RFD is the largest of the three departments with typical daily staffing of 42 firefighters (34 is a minimum) and a total workforce of 141. RFD's budget for 2019 is \$17.1 million.

RFD maintains a regional hazardous materials response team available to a wide area of southeastern Wisconsin and also has other special operations personnel for water rescue, rope rescue, trench, collapse, water rescue, dive team, and confined space. The department also has a mechanic on call 24/7, a dedicated fire investigation staff of five, and a fire safety education specialist.

The protected population is about 78,000 residents in about 15.5 square miles. In 2018, RFD responded to an average of 31 calls per day, of which 89% were an EMS response. The calls for service increased by 6% in 2018 from the previous year and call volume is nearly 25% higher than in 2001, despite a population that has decreased by about 5%. An additional challenge is the department's aging and outdated fire stations which, according to a recent consultant's report, will require tens of millions of dollars of capital investment to address.

South Shore

The South Shore Fire Department (SSFD) operates out of three fire stations, one of which (Station 10) is shared with CFD. There is a dedicated two-person ambulance crew at Station 8 and a three or four-person engine company at each station. At Station 10, the three-person crew moves between the engine and ambulance as needed based on the call.

Additionally, SSFD recently opened a new EMS-only station in the east-central portion of the district and is planning a new station to serve Foxconn and adjacent development. SSFD has a workforce of 59 firefighters and its budget for 2019 is about \$8.1 million.

SSFD also provides service for the small village of Elmwood Park (about 600 residents). The protected population is about 34,000 in about 38 square miles. In 2018, SSFD responded to an average of 11.2 calls per day. After a 12% increase in call volume between 2015 and 2016, the calls for service have increased 1% over each of the last two years.

Agency Comparison

	Caledonia	Racine	South Shore
Population Served	26,727	77,555	33,873
Area Served (sq. mi.)	46.8	15.5	38.2
Fire Dept. Budget (2018/19)	\$ 4,765,985	\$ 17,143,498	\$ 8,135,117
EMS Revenue as Share of Expense	13%	15%	12%
Approx. Fire Cost Per Capita	\$ 178	\$ 221	\$ 240
2018 EMS Calls	2116	9944	3338
2018 Fire Calls	381	1342	765
Firefighting Sworn Staff	40	141	57
Typical Shift Size	10	42	15
Fire Fighters per 1000 residents	1.50	1.82	1.68
EMS Calls per 1000	79	130	98
Fire Calls per 1000	14	18	23

OPTIONS FOR CHANGE

Option A: Maintain Status Quo

The three departments all provide high-quality service tailored to their communities. However, the status quo has certain characteristics that may prevent the most cost-efficient and operationally effective responses or that may necessitate consideration of modifications to operational or fiscal frameworks in light of changing needs going forward. For example:

- SSFD likely faces substantial population growth and commercial development with the Foxconn project and other anticipated new development projects. In response, the department is adding a new fire station with matching staff increases (on top of a recently added EMS-only station).

-
- It is likely that there will be new chiefs in each department in the next five years, as each is at or nearing retirement age.
 - The ambulance transport industry is facing challenges in regard to reimbursement, which might lead to a reduction in EMS-related revenue for the departments.
 - Pockets of slower response times due to odd borders and station locations will continue to impact hundreds of calls each year.
 - The call volume, especially related to EMS, is likely to continue to climb with population growth and the aging of the population.
 - All of the departments face coming expenses for capital items, including station renovations and equipment replacement. This challenge is most severe for Racine.

Overall, operating costs and service demands are expected to increase steadily, challenging the fiscal and response capacity of each department. Consequently, this analysis finds that at least modest changes to the status quo need to be considered.

Option B: Immediate Actions

Short of any level of consolidation, there are a variety of efficiencies that can be achieved simply through better agency coordination or internal changes. Some would require formal intergovernmental and/or cost sharing agreements, while others could be achieved informally:

- Closest unit response: Switching to an approach in which the closest unit responds to a call regardless of municipal boundaries could significantly improve response times for some areas and would be particularly beneficial in responding to high-priority calls.
- Dynamic resource deployment: The departments could agree to coordinate ambulance coverage or to backfill stations with staff or apparatus in neighboring jurisdictions during busy times to avoid calling in off-duty staff and paying overtime.
- Group purchasing: Given that there are many compatibilities in equipment, the three departments would benefit from coordinating bulk purchases.
- Switch to two-person ambulances: As this is the norm in much of the rest of the country, use of two-person crews in Racine and Caledonia could produce both cost savings and the ability to field additional ambulances. The implications for firefighting practices would have to be considered, however.
- Staffing redeployment at Station 10: Based on existing call volume, SSFD and CFD could move from the current six-person staffing coverage (three from each department) at their shared Station 10 to a four-person model, allowing for staffing redeployment to other areas of need.
- Expand fire and technical training capacity: Rather than jointly utilizing a third-party training facility outside of Racine, a new centrally located fire training and technical rescue facility could prove a cost-effective way of creating a more effective firefighting force.

Option C: Merge Caledonia and South Shore Fire Departments

Caledonia could join with Mount Pleasant and Sturtevant to form a single fire service. The easiest path to this consolidation would be to expand the existing South Shore Fire Department agreement to include Caledonia, as the SSFD agreement already provides a structure for resource and cost sharing between two villages and could be expanded to the third.

This option would build on two decades of success related to the joint operation of Station 10. A single department could reduce the need for overtime and allow for more strategic deployment of resources throughout the broader geographic area based on call volumes and service demands. Additional benefits would be enhanced administrative efficiency and reduced equipment costs.

Option D: Racine Provides Fire Protection for Caledonia

In a different two-way arrangement, Racine and Caledonia could merge their fire and EMS operations. In this case, given their unequal size, the likely approach would be for Caledonia to contract for service with Racine. Under such an approach, Caledonia would likely retain ownership of its stations but transfer its apparatus to Racine.

The key decision factor is whether RFD could provide equivalent or improved service for Caledonia at a lower cost than Caledonia could provide with its own independent department. This arrangement has potential efficiencies in redeployment of firefighter and command staff and apparatus throughout the larger service area, the elimination of a chief position, and the merger of administrative tasks. In addition, this approach would allow RFD to enjoy a new, significant source of revenue that should exceed the cost required to serve Caledonia because of economies of scale and more efficient use of existing capacity.

Option E: Create a Unified Fire Department for Greater Racine

A single fire department serving 140,000 residents and 100 square miles of varying population density could lead to both improved service and impactful costs savings. Benefits would include:

- More logical and efficient distribution of resources in the community through a detailed planning process and elimination of unnecessary backup equipment.
- Larger staff would reduce overtime needed to cover for injuries and vacations, and allow for specialization, such as training and inspection, to be shared across the whole community.
- Reduction of some leadership positions and the possibility to eliminate needed staff expansion in South Shore and Caledonia via a more strategic deployment of existing staff.
- Streamlined and more efficient administrative and command structure.

Despite these potential benefits, there would be significant legal and logistical challenges involved with consolidating that would take considerable staff resources and negotiation to address, including restructuring collective bargaining agreements, developing a new resource allocation model that matches service demand, and creating an equitable cost sharing arrangement.

INTRODUCTION

The Center for Governmental Research (CGR) was engaged by the Wisconsin Policy Forum (WPF) to conduct an analysis of the three fire departments serving eastern Racine County for potential areas of greater collaboration or possible consolidation. WPF has been engaged in a series of analyses commissioned by the Resilient Communities Roundtable, a group of elected and appointed officials and community stakeholders from the Greater Racine region.

The group is convened by the Johnson Foundation at Wingspread as part of its “Resilient Communities Initiative,” which is focused on building resiliency in the Greater Racine region to improve the social and economic health of all area citizens. Recognized for its world-class convening expertise, the Foundation is providing area leaders the opportunity to explore and discuss if and how municipalities can work together to benefit both individual communities and the region as a whole. The project was underwritten by the Johnson Foundation at Wingspread.

One of the WPF analyses was “Building Bridges,²” a report released in September 2018 that conducted a broad scan of municipal service sharing opportunities in the region. As a result of that report, the Foundation and local elected leaders commissioned WPF to conduct more detailed service sharing studies in the areas of fire and emergency medical services (EMS), parks and recreation, and public health. In light of the workload involved, WPF partnered with CGR to lead the fire and rescue and parks and recreation studies.

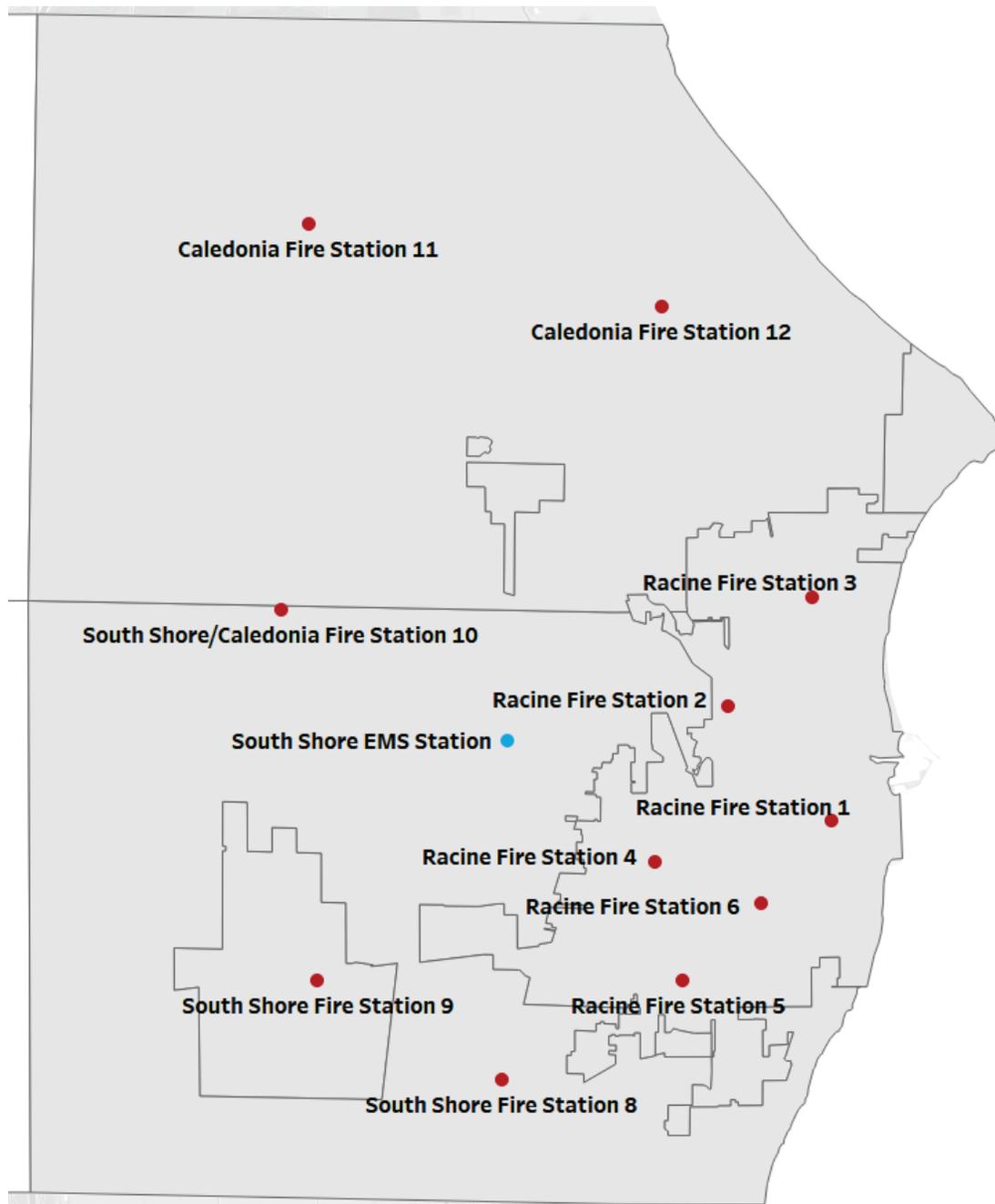
CGR conducted its analysis through a series of interviews with key stakeholders and a review of relevant fire department data such as financial records, personnel rosters, and calls for service. While the study included a high-level analysis of calls for service and other fire department activities, there was not an extensive task or equipment review of each department. Such an analysis should be strongly considered before efficiently undertaking any of the large structural changes cited in this report.

This report is structured with Key Findings and Current Situation appearing first and Options for Change to follow.

² <https://wispolicyforum.org/research/building-bridges-a-scan-of-municipal-service-sharing-opportunities-in-greater-racine/>

KEY FINDINGS

The fire service in eastern Racine County provides emergency medical response and fire protection to about 138,000 residents over 100 square miles ranging from a dense urban core to pasture land. As shown in the map below, the region is served by three departments (Racine Fire Department, South Shore Fire Department, and Caledonia Fire Department) and 11 fire stations, including one on the border of Mount Pleasant and Caledonia that is shared by the South Shore and Caledonia departments. South Shore also recently opened a new EMS-only station (also shown on the map).



While the population has been steady in recent decades, the Foxconn project in the southwestern portion of the community is anticipated to bring a variety of new development and increased population. The three departments all function well to respond to emergencies in the community; however, there are opportunities for improvement. The key findings regarding the current conditions are outlined below.

- All three departments operate in similar manners:
 - Dual purpose firefighters / EMT or paramedic;
 - Paramedic ambulance is standard of care; and
 - 24-hour shifts with static staffing.
- All three departments are highly rated for fire protection – Insurance Service Organization Public Protection Classification³ Class 2 in Racine and Class 3 in Caledonia and South Shore:
 - Only six fire departments (0.4%) in Wisconsin have a better rating than Racine while only 3% have a better rating than Caledonia and South Shore;
 - 12% of Wisconsin departments are rated a Class 3 and 2.6% are rated a Class 2; and
 - These ratings indicate that the departments all scored well when evaluated for fire department capabilities, emergency communication functionality, and the availability of water.
- A single dispatch organization handles all three agencies and is the result of substantial planning and coordination.
- Pay scale and benefits structure is similar for all three, although Racine has some expanded benefits and Caledonia’s current contract has expired.
- Fire stations are well located for current call volume with some exceptions in generally low volume areas. One higher volume area in east-central Mt. Pleasant has longer distances to stations, but this gap is being filled by a new South Shore FD EMS-only station that opened in October 2019.
- Consolidation of the departments has been discussed for decades and fire/EMS services have seen some substantial changes with the formation of South Shore and a joint dispatch center.
- Most key operational equipment is compatible – hose connections, SCBA bottles, stretchers, radios, etc. - between the three departments.
- Irregular municipal boundaries create illogical response to some locations.
- The busiest times for calls for service are in the late morning to early evening for all three departments.
- More than 80% of calls for fire departments require an emergency medical response.

³ <https://www.isomitigation.com/ppc/>

- The approximate per capita cost⁴ of the Caledonia Fire Department (\$176) is about 25% lower than either RFD (\$221) or SSFD (\$240). This difference is primarily the result of CFD's lower staffing levels. CFD recently approved an increase in staffing in its 2020 budget which will increase this cost in the next several years and make it more in line with its neighbors.
- According to data from the National Fire Protection Association, the fire department staff per 1,000 residents is higher than comparable Midwest cities (1.45) for all three departments: CFD = 1.50, RFD = 1.82, SSFD = 1.68. However, it is not known how many of those agencies also provide EMS transport. There is no accepted guideline for the right per capita ratio.
- The majority of EMS calls are answered using a three-person ambulance crew (Caledonia and Racine use this model), while most of the country uses a two-person crew. When the situations arise, the ambulance crews in all three departments have responsibilities for fire suppression such as performing building searches or participating on a rapid intervention crew. Most ambulance crews do not have these additional duties.
- All fire departments bill for ambulance transports and ambulance revenue covers about 12% of budgeted costs.
- The majority of fire stations are aging and in need of replacement or upgrade to reach modern standards. This is particularly the case for the Racine Fire Department.
- Racine and South Shore have made separate but substantial efforts to develop and sustain technical rescue capabilities such as Confined Space, Trench Rescue, Collapse Rescue, Rope Rescue, Water Rescue and Hazardous Materials.

Addressing the Future

If policymakers were seeking to create a new fire and EMS service in 2019 from scratch for the eastern Racine County community, it would probably not look like the current system with jagged political boundaries and fractured planning to meet common problems. Nevertheless, as illustrated above, the existing fire service does a good job providing this essential service to the community. Elected officials report there are very few citizen concerns.

However, with the looming development of Foxconn, expensive impending capital needs, and continuous pressures on municipal budgets, this is an atmosphere ripe for a change. The three fire departments now focus primarily on responding to EMS calls, yet they must be prepared to handle the occasional fire response and maintain readiness for complex rescue or hazard response. In the future, there will likely be increased costs for personnel and equipment, a continued trend of increasing call volume as the population ages, and the probable addition of both population and higher risk environments. The communities should work together in a tighter partnership to be ready to address the future needs of their constituents. The potential options explored in this report range from the status quo to merging into a single department, with several intermediate possibilities.

⁴ An in-depth financial analysis was not part of this initial scope of work. A more thorough analysis would account for all fire department expenses, including items such as workers' compensation and post-employment benefits that are pooled in the budgets of Racine and Caledonia but not South Shore. The result would likely be that Racine and South Shore are closer in per capita cost while Caledonia is lower.

CURRENT SITUATION

The three fire departments each provide fire protection and advanced life support ambulance transport to the populations they serve. All the departments use paid, career personnel to provide their services. The departments use similar models to operate with dual purpose personnel (firefighting and EMS). Their work shifts are similar, rotating 24-hour shifts with an average of 56 hours per week.

The departments are funded through a mix of municipal tax revenue, fees for service for ambulance transport, and grants. All of the departments are dispatched by the Racine County 911 Center. Their personnel all receive initial training to the same standards. The departments are all members of the Mutual Aid Box Alarm System (MABAS) serving southeast Wisconsin.

The discussion of consolidation of these departments has occurred at least four times in the last three decades. During this time, the South Shore Fire Department was created from the merger of services in Sturtevant and Mount Pleasant in 2012. Also, a joint station shared by Caledonia and South Shore was built in 1998. The potential of merging departments is thought to be probable enough that each union contract has a clause about how employees would be treated in the case of a consolidation.

In the pages that follow, we provide an overview of the service-level and budget characteristics of the three departments. For the budget tables and side-by-side budget comparisons used here and throughout the report, we chose to use adopted budgets rather than actual expenses. There are some variances between these figures but we view them as not enough to influence the overall findings of the report.

In addition, it should be noted that the scope of work for this project did not include the type of in-depth financial analysis that would have been necessary to account for differences in budget methodologies between the three departments (including the budgetary treatment of certain indirect costs, like retiree health care, insurance, accounting/budget, human resources, etc.). Consequently, while budget numbers and comparisons (such as cost per capita) used in this report provide useful context, they were prepared at a basic level and would require considerable refinement should the communities wish to enter into cost allocation negotiations for various service sharing or consolidation options.

Caledonia Fire Department

Overview

The Caledonia Fire Department (CFD) operates out of three fire stations, one of which (Station 10) is shared with the South Shore Fire Department. CFD provides service for the Village of Caledonia and also provides service under contract to the nearby villages of Wind Point and North Bay. The protected population is about 27,000 in 48 square miles. The population of the village is focused on the east near the lake and the south. Caledonia has a median age of 45.9 years and the poverty rate is 5.4%.

There are 40 sworn firefighters in the department, of whom 82% are paramedics. The minimum shift staffing for the department (i.e. staff on duty at the three stations at any point in time) is 10 employees, comprised of three firefighters at each station and a battalion chief on duty. The firefighters are all cross-trained to perform EMS and firefighting. Each station has an ambulance and one or more firefighting apparatus. If the call involves an ambulance response, typically the firefighters respond on the ambulance. If there is a call for a fire engine, the firefighters typically respond on either an engine or quint/ladder truck.⁵

Budget

The operational expense budget for the department in 2019 is about \$4.8 million, which is about a 1% increase over 2018. About 96% of the cost for the department is for personnel expenses. The department had budgeted revenue of about \$634,000 for EMS calls in 2019, which is equal to about 13% of the total budget. The contract for service in Wind Point is \$255,511 for an average of about 100 calls per year. The contract for service in North Bay is \$32,091 per year.

Caledonia Fire Budget Summary

	2017 Actual	2018 Budget	2019 Budget	%
Salaries	\$2,554,319	\$2,912,271	\$3,070,520	64%
Overtime	\$270,516	\$120,000	\$120,000	3%
Benefits	\$1,284,067	\$1,464,130	\$1,359,880	29%
Operations	\$141,399	\$144,500	\$147,500	3%
Admin	\$4,502	\$8,410	\$13,810	0.1%
Support	\$52,396	\$50,975	\$54,275	1%
Total	\$4,307,198	\$4,700,286	\$4,765,985	

⁵ A quint is a type of fire apparatus that can perform five functions: pump water, carry hose, transport water, supply ground ladders and has a mounted aerial ladder. They generally meet the requirements of both a ladder truck and an engine in capabilities. In practice, they often replace ladder trucks (which have minimal water, pump capacity or hose) because quints are more versatile.

Calls for Service

In 2018, CFD responded to an average of 6.8 calls per day; 85 % of the calls were an EMS response and 65 % of calls occurred between 8 am and 8 pm. There is little variation in calls by day of week or time of year. The call volume increased by 25% between 2015 and 2018.

Incidents by Day of Week and Year

	2015	2016	2017	2018	Total
Sunday	280	313	314	360	1,267
Monday	270	351	301	340	1,262
Tuesday	266	301	351	365	1,283
Wednesday	294	319	311	357	1,281
Thursday	316	313	306	365	1,300
Friday	288	370	388	359	1,405
Saturday	287	327	313	351	1,278
Total	2,001	2,294	2,284	2,497	9,076

One concern is how often the demand for service might exceed the available resources in the village. We analyzed each hour in 2018 to determine how often there were more than two calls in a given hour, which would indicate that resources might be overtaxed. We found 34 occasions, or about three times a month, when three or more calls occurred in an hour. Two thirds of those occasions occurred between noon and 7 pm.

Incidents by time of day and year

	2015	2016	2017	2018	Total
Overnight 00:00-03:59	164	210	197	260	831
Early Morning 04:00-07:59	254	270	268	274	1,066
Morning 08:00-11:59	421	520	468	536	1,945
Afternoon 12:00-15:59	448	499	509	558	2,014
Evening 16:00-19:59	421	425	518	520	1,884
Night 20:00-23:59	293	370	324	349	1,336
Total	2,001	2,294	2,284	2,497	9,076

The calls for service table below is based on data from the Racine County 911 center and their classification of calls based on the information received by the caller. Calls that are underlined are calls that generate an EMS response. They accounted for about 85% of calls for the department.

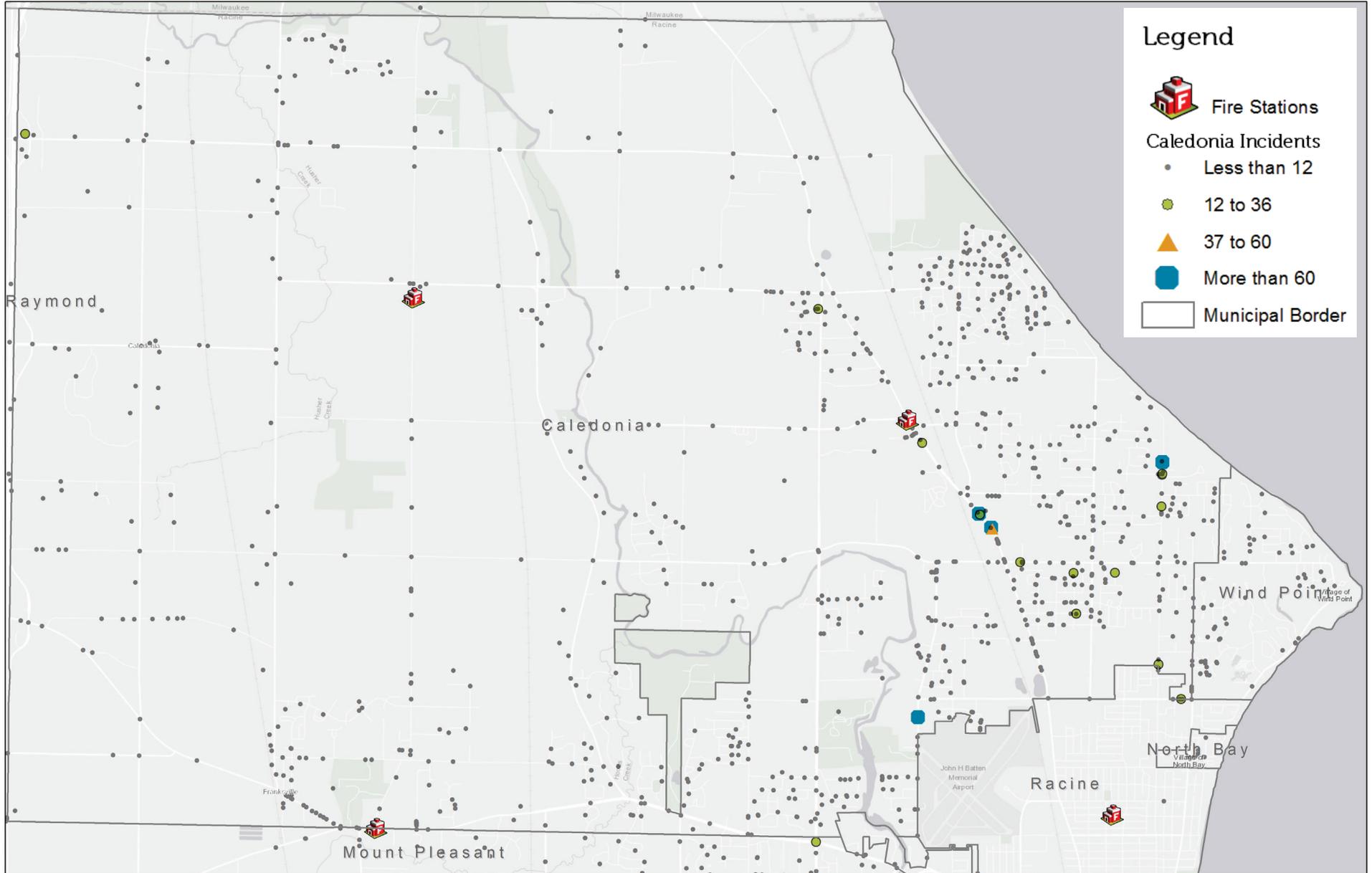
Incidents by Dispatch Code

	2015	2016	2017	2018	Total	
<u>Accident –Personal Injury</u>	120	122	106	162	510	6%
<u>Accident –Personal Injury Pri 1</u>	0	0	0	1	1	0%
ACCPIT1	0	0	0	1	1	0%
Accident - Property	8	11	12	20	51	1%
<u>Adv. Life Support</u>	935	1,048	557	399	2,939	16%
<u>Adv. Life Support- Priority 1</u>	0	0	574	940	1,514	38%
<u>Basic Life Support</u>	482	582	493	413	1,970	17%
Carbon Monoxide	28	45	26	30	129	1%
<u>Drowning</u>	0	2	1	0	3	0%
Emergency Assistance	3	4	0	4	11	0%
FIRE	70	89	75	55	289	2%
FIRE ALARM	122	120	151	155	548	6%
FIREA1	0	0	0	1	1	0%
FIREO	57	56	66	73	252	3%
FTEST	3	0	0	3	6	0%
HAZMAT	0	1	0	2	3	0%
<u>Invalid Assist</u>	97	140	138	151	526	6%
NGLEAK	27	22	23	22	94	1%
<u>Pulseless Non-breathing</u>	28	38	40	51	157	2%
Reciprocal Aid In	0	0	1	0	1	0%
Reciprocal Aid Out	21	14	20	14	69	1%
RR	0	0	1	0	1	0%
Total	2,001	2,294	2,284	2,497	9,076	100%

Underlined calls involve an EMS response

Calls for Service Distribution

The map on the following page shows that the busiest areas for calls in Caledonia in 2018 were near Station 12 (the easternmost of the Caledonia stations) and close to Wind Point. Conversely, Station 11 to the northwest is located in an area with relatively sparse call volume. The map also shows that some calls in the southern portion of Caledonia and calls in North Bay and Wind Point are considerably closer to a Racine fire station than they are to the closest Caledonia station.



Apparatus and Equipment

Two stations (11 and 12) work between an ambulance and an engine while the third station (10) works between an ambulance and a quint. The department works with the village board to maintain an appropriate capital replacement plan.

Apparatus and Equipment

Unit	Station	Apparatus Type	Year
Q10*	10	Quint	2007
M20*	10	Ambulance	2017
E11*	11	Engine	2016
T11	11	Tanker	1994
M11*	11	Ambulance	2011
E12*	12	Engine	2002
E32	12	Engine	2001
T12	12	Tanker	1994
M12*	12	Ambulance	2014
M32	12	Ambulance	2009

* are frontline units

CFD is well equipped to respond to both EMS and fire events. In the EMS arena, it has multi-function patient monitor/defibrillators, hydraulic lifting stretchers, two automatic patient loading devices (other ambulances will have them installed as they are replaced), and mechanical CPR devices. The firefighter's turnout gear and breathing apparatus are up to date and are replaced on a regular schedule. Only Stations 11 and 12 have gear washing capabilities.

Stations

The three fire stations from which CFD operates are well maintained. The Village owns Stations 11 and 12, while Station 10's costs are shared equally between CFD and SSFD and the station is jointly owned by the two departments (this station will be discussed in the SSFD section). While functional, both stations have wear-related problems and are not up to current fire service standards. Some of the challenges in the stations include outdated restroom facilities (including limited female capacity), no dedicated space for vehicle maintenance, and limited space for administrative tasks and training.

On the Horizon

CFD recently received approval for a Federal Staffing for Adequate Fire & Emergency Response (SAFER) grant that allows it to add six firefighters to help meet the growing needs in the community. SAFER grants pay 75% of the costs of new hires for the first two years and 35% in the third year. Caledonia will need to pay the balance of those costs beginning in 2020 and the full cost to retain the firefighters after the grant expires. The department is also considering its capital equipment needs, including potentially replacing an engine in the next few years while keeping up on their ambulance replacement schedule. The Village and local firefighters union have reached an impasse in the current labor contract negotiations and will be heading to arbitration. Also, CFD and SSFD are working on a

year-to-year basis for the agreement on Station 10, after a 20-year agreement expired at the end of 2018.

Synopsis

CFD is the smallest of the three departments by personnel (40), budget (\$4.8 million), call volume (6.8 per day), population served (27,000), and front line apparatus (6). It has the largest land area (48 square miles). It operates out of two of its own stations and shares one with SSFD. Its firefighting and EMS equipment are sufficient to meet its existing needs, but the Village has delayed purchasing new apparatus. Its current staffing model requires mutual assistance to have enough manpower to effectively fight a fire, although the Village recently decided to expand its staff to meet a growth in service demand and to help reduce the need to rely on neighboring departments.

Racine Fire Department

The Racine Fire Department (RFD) operates out of six fire stations spread throughout the city. The protected population is about 78,000 residents in about 15.5 square miles. The city has the lowest median age (32.8) and the poverty rate is roughly triple (17%) that of any of its neighbors.

RFD is the largest of the three departments with typical daily staffing of 42 firefighters (34 is a minimum) and a total workforce of 141. 42% of the firefighters are paramedics and 11 paramedics are recognized as Mobile Integrated Healthcare providers, enabling them to provide an expanded scope of medical care. RFD staffs three types of companies: Ambulance (three staff), Engine (three or four staff), and Quint/Truck (four staff). Two of the Engine Companies and one Truck Company will cross-staff an ambulance when needed based on call demand.

The department maintains a regional hazardous materials response team available to a wide area of southeastern Wisconsin and also has other special operations personnel for water rescue, rope rescue, trench, collapse, water rescue, dive team, and confined space. RFD has been engaged in these special operations activities for more than 20 years. RFD has a dedicated training unit for fire and EMS training. The department also has a mechanic on call 24/7, a dedicated fire investigation staff of five, and a fire safety education specialist.

Budget

RFD's 2019 budget is \$17.1 million for 2019, which is about a 3% increase over the 2018 budget. About 93% of the cost is associated with personnel, either in compensation or in benefits. The department earns about \$2.6 million in revenue for ambulance transports, comprising about 15% of its budget.

Racine Fire Budget Summary

	2017 Actual	2018 Budget	2019 Budget	%
Salaries	\$9,972,711	\$10,577,751	\$10,963,183	64 %
Overtime	\$600,099	\$462,465	\$449,500	3%
Benefits	\$4,531,685	\$4,635,512	\$4,614,293	27 %
Operations	\$515,612	\$480,994	\$474,001	3 %
Admin	\$159,558	\$165,975	\$167,000	1 %
Support	\$347,041	\$348,105	\$475,521	3 %
Total	\$16,126,706	\$16,670,802	\$17,143,498	

Calls for Service

In 2018, RFD responded to an average of 31 calls per day. Of those, 89% involved the response of an ambulance and 62% of the calls occurred between 8:00 am and 8:00 pm. There is little variation in the call volume between time and day of week. The calls for service increased by 2% in 2016 and 2017 and 6% in 2018 from the previous year. This is continuing a long term trend reported by the department that shows year over year increases in 13 of the last 17 years. This has led to a call volume that is nearly 25% higher than in 2001 despite a population that has decreased by about 5%.

Incidents by day of week and year

	2015	2016	2017	2018	Total
Sunday	1,404	1,448	1,458	1,559	5,869
Monday	1,488	1,543	1,658	1,655	6,344
Tuesday	1,471	1,540	1,460	1,657	6,128
Wednesday	1,385	1,454	1,498	1,624	5,961
Thursday	1,506	1,469	1,563	1,649	6,187
Friday	1,466	1,529	1,503	1,546	6,044
Saturday	1,465	1,453	1,509	1,596	6,023
Total	10,185	10,436	10,649	11,286	42,556

One concern is how often the demand for service might exceed the available resources in the city. We analyzed each hour in 2018 to determine how often there were more than four calls in a given hour, which would indicate that resources might be overtaxed. We found 121 occasions, or about 10 times a month, when five or more calls occurred in an hour, with 56% of those occasions occurring between 10 am and 4 pm.

Incidents by time of day and year

	2015	2016	2017	2018	Total
Overnight 00:00-03:59	1,095	1,107	1,195	1,213	4,610
Early Morning 04:00-07:59	1,065	1,132	1,151	1,136	4,484
Morning 08:00-11:59	1,980	2,118	2,039	2,262	8,399
Afternoon 12:00-15:59	2,126	2,154	2,182	2,496	8,958
Evening 16:00-19:59	2,156	2,208	2,205	2,293	8,862
Night 20:00-23:59	1,763	1,717	1,877	1,886	7,243
Total	10,185	10,436	10,649	11,286	42,556

Nearly 9 in 10 calls involved an EMS response. This is usually an ambulance alone, but on calls deemed ALS Priority 1 and for reports of a person Pulseless Non-Breathing, the nearest fire unit is also dispatched to provide assistance. The categorizations below are based on information provided to the dispatch center at the time of the call.

Fire Department Incidents by Dispatch Information

	2015	2016	2017	2018	Total	
<u>Accident –Personal Injury</u>	468	498	489	469	1,924	5%
Accident –Property Damage	20	24	41	42	127	0%
<u>Adv. Life Support</u>	5,212	5,475	3,267	2,164	16,118	38%
<u>Adv. Life Support- Priority 1</u>	0	0	2,679	4,637	7,316	17%
<u>Basic Life Support</u>	2,954	2,768	2,408	2,096	10,226	24%
Cancel	47	87	103	104	341	1%
Carbon Monoxide	125	145	127	111	508	1%
<u>Drowning</u>	4	5	4	5	18	0%
Emergency Assistance	3	6	2	2	13	0%
FIRE	315	314	304	309	1,242	3%
FIRE ALARM	226	238	259	247	970	2%
FIREO	224	239	231	278	972	2%
FTEST	18	4	0	0	22	0%
HAZMAT	2	1	0	1	4	0%
Haz-Mat Regional Task Force	1	2	2	4	9	0%
<u>Invalid Assist</u>	299	366	418	422	1,505	4%
<u>Mobile Integrated Healthcare</u>	0	0	38	131	169	0%
NGLEAK	122	109	98	96	425	1%
<u>Pulseless Non-breathing</u>	138	148	165	151	602	1%
Reciprocal Aid In	0	1	1	1	3	0%
Reciprocal Aid Out	7	6	13	16	42	0%
Total	10,185	10,436	10,649	11,286	42,556	

Underlined calls involve an EMS response

Calls for Service Distribution

As shown on the map on the following page, the calls are relatively evenly distributed across the city with only a few locations that generated more than 60 calls in 2018. The map also shows that some areas in the southwest part of the city are closer to SSFD Station 8 (shown on the southwest corner of the map) than any RFD station. Conversely, parts of Elmwood Park – which is served by SSFD – are closer to Racine Station 5 than to SSFD Station 8. Also, our review of travel distances shows that the whole city is within a four-minute drive of at least one Racine station and many locations could be reached by two stations within that time.

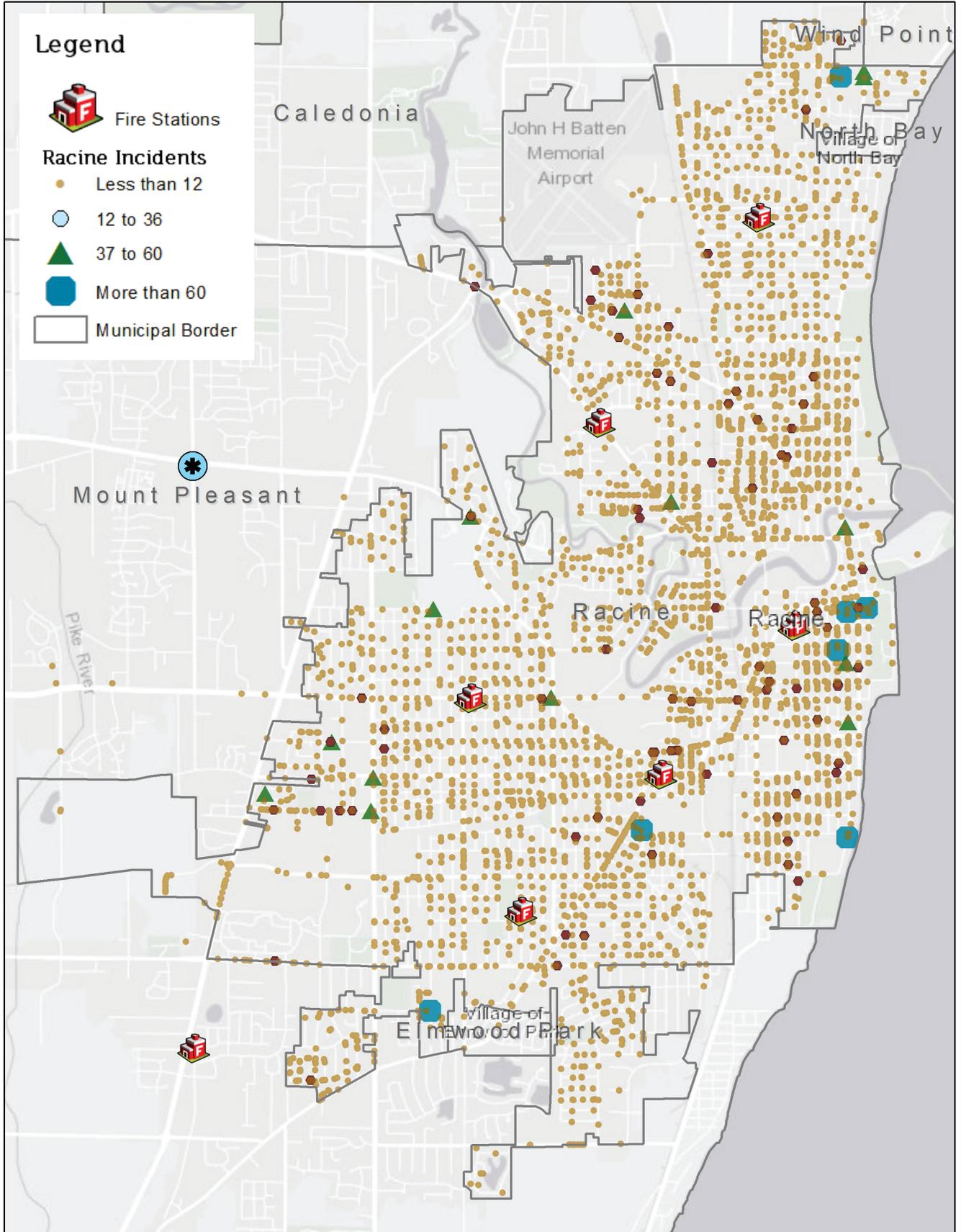
Apparatus and Equipment

RFD deploys 10 front line companies out of six stations spread throughout the city. There are three frontline ambulances, four engines, and three quint/truck companies. Truck 1, Engine 2, and Engine 6 each cross-staff an ambulance that they use when responding to EMS calls, either as the primary unit or to assist another unit. In addition to the units listed below, RFD has a Special Teams unit, a Tactical Command Unit, a boat, and several reserve apparatus.

Fire Department Apparatus and Equipment

Unit	Station	Apparatus Type	Year
E1	1	Engine	2003
M1	1	Ambulance	2018
TR1	1	Truck	2015
E2	2	Engine	2008
M2c	2	Ambulance	2000
M3	3	Ambulance	2016
Q3	3	Quint	2018
M4	4	Ambulance	2012
Q4	4	Quint	2016
E5	5	Engine	2001
E6	6	Engine	2010
M6c	6	Ambulance	2010

“C” = a unit that is crossed staffed by the company at the station



RFD is well equipped to respond to both EMS and fire events. In the EMS arena, it has multi-function patient monitor/defibrillators, hydraulic lifting stretchers, and mechanical CPR devices for each paramedic unit. The firefighter's turnout gear and breathing apparatus are up to date. The majority of the stations have gear washing capabilities, except they are not located in ideal spaces in most of the stations.

Stations

The newest fire station was completed in 1973, although the oldest (1936) had a significant addition in the early 1980s. The city commissioned an exhaustive study related to the status of its fire and police facilities that was completed in early 2019. The report states that "among all the fire stations, the commonality is a lack of adequate space. A need for additional space for female staff, Bay support storage, and training exists at all facilities. Each of these space deficits have different implications." The report provides a series of recommendations for each of the stations with the proposed price tag moving quickly into the tens of millions of dollars for just responding to the needs of Station 1. The city will need to undertake a substantial capital program to bring its fire stations into compliance with the 21st Century fire service workplace.

On the Horizon

As noted above, there is a substantial need for improved stations for RFD requiring a substantial investment from the city with initial estimates in the tens of millions of dollars range. This should encourage city leaders to examine the possibility of closing and/or repositioning one or more stations, as current call volumes and response times indicate the potential for doing so while still being able to respond to calls in the city in a timely manner. Potential impacts for current personnel could be minimized because 60 percent of the workforce has been on the job for more than 15 years, which suggests the likelihood in the next 10 years for much of the workforce to turn over. In the next five years, the department is planning to replace one fire station (6), 3 ambulances (about \$190,000 each), 2 engines (about \$450,000 each), and 50 SCBA units.

Synopsis

RFD is the largest of the three departments by personnel (141), budget (\$17.1 million), call volume (31 per day), population served (78,000), and front line apparatus (12). It has the smallest land area (15.5 square miles) and operates out of six stations. There are substantial capital needs for the fire stations, apparatus, and other equipment. It has a regional hazardous materials response unit that is a resource outside the study area. While calls for service have increased significantly in the past several years, the city's service capacity still appears to be more than sufficient to meet its service demands.

South Shore Fire Department

The South Shore Fire Department (SSFD) operates out of three fire stations, one of which (Station 10) is shared with CFD. SSFD also provides service for the small village of Elmwood Park (about 600 residents). The protected population is about 34,000 in about 38 square miles. While the current population is spread throughout the eastern two-thirds of the service area, the Foxconn development is underway in the southwestern portion. Mount Pleasant's median age is 46.4 and its poverty rate is about 6.6%. In Sturtevant, the median age is 41 and the poverty rate is 8%.

Overview

SSFD is managed by Mount Pleasant under a consolidation agreement with Sturtevant that went into effect in 2009. The agreement includes a cost-sharing formula based on property value, population, and call volume. The cost share is currently 83% to Mount Pleasant and 17% to Sturtevant. The contract with Elmwood Park is for \$45,000 per year.

SSFD has a workforce of 59 firefighters,⁶ 78% of whom are certified as a paramedic or paramedic with mobile integrated healthcare training. The staffing model has two-person ambulance crews and three or four-person crews for fire apparatus. As needed, crews will switch to ambulances from fire apparatus and ambulance crews will fulfill firefighting roles. The department has also developed a Technical Rescue team that became fully operational in late 2018. The team has personnel qualified in hazardous materials, confined space, collapse, and rope rescue.

Budget

The SSFD budget is about \$8.1 million for 2019. This represents a 3% increase over the 2018 budget and 6% over 2018 actual expenditures, which reflects (in part) the addition of staff for the new EMS-only station. About 92% of the budget is associated with personnel. Other large expenses relate to operational supplies and fleet maintenance. The Village budgeted \$950,000 in revenue from ambulance service fees in 2019, or about 12% of the budget. The department also receives payments from the villages it serves per contractual agreements.

South Shore Fire Budget Summary

	2017 Actual	2018 Budget	2019 Budget	%
Salaries and OT	\$4,355,782	\$4,637,321	\$4,846,084	60%
Overtime	\$289,933	\$250,000	\$300,000	4%
Benefits	\$2,004,017	\$2,365,063	\$2,287,733	28%
Operations	\$412,409	\$422,900	\$437,400	5%
Admin	\$148,552	\$155,320	\$161,150	2%
Support	\$88,054	\$79,000	\$ 102,750	1%
Total	\$7,298,747	\$7,909,604	\$ 8,135,117	

⁶ SSFD will be at 65 personnel by fall 2019 as it adds six staff members for the new EMS-only station.

Calls for Service

In 2018, SSFD responded to an average of 11.2 calls per day; 79 % of the calls were an EMS response while 66% occurred between 8 am and 8 pm. There is little variation in calls by day of week or time of year. After a 12% increase in call volume between 2015 and 2016, the calls for service have increased 1% over each of the last two years.

Calls by Day of Week and Year

	2015	2016	2017	2018	Total
Sunday	458	500	522	556	2,036
Monday	494	582	599	660	2,335
Tuesday	522	574	597	566	2,259
Wednesday	542	582	605	573	2,302
Thursday	538	590	577	615	2,320
Friday	536	630	620	612	2,398
Saturday	496	566	542	523	2,127
Total	3,586	4,024	4,062	4,105	15,777

One concern is how often the demand for service might exceed the available resources in the district. We analyzed each hour in 2018 to determine how often there were more than two calls in a given hour, which might indicate that demand would be exceeded by resources. We found that on 143 occasions, or about 12 times a month, there were three or more calls in an hour, with 74% occurring between 9 am and 6 pm.

Incidents by time of day and year

	2015	2016	2017	2018
Overnight 00:00-03:59	332	342	353	372
Early Morning 04:00-07:59	381	457	426	451
Morning 08:00-11:59	832	850	894	927
Afternoon 12:00-15:59	831	916	943	926
Evening 16:00-19:59	729	873	830	847
Night 20:00-23:59	481	586	616	582
Total	3,586	4,024	4,062	4,105

Types of Calls for Service

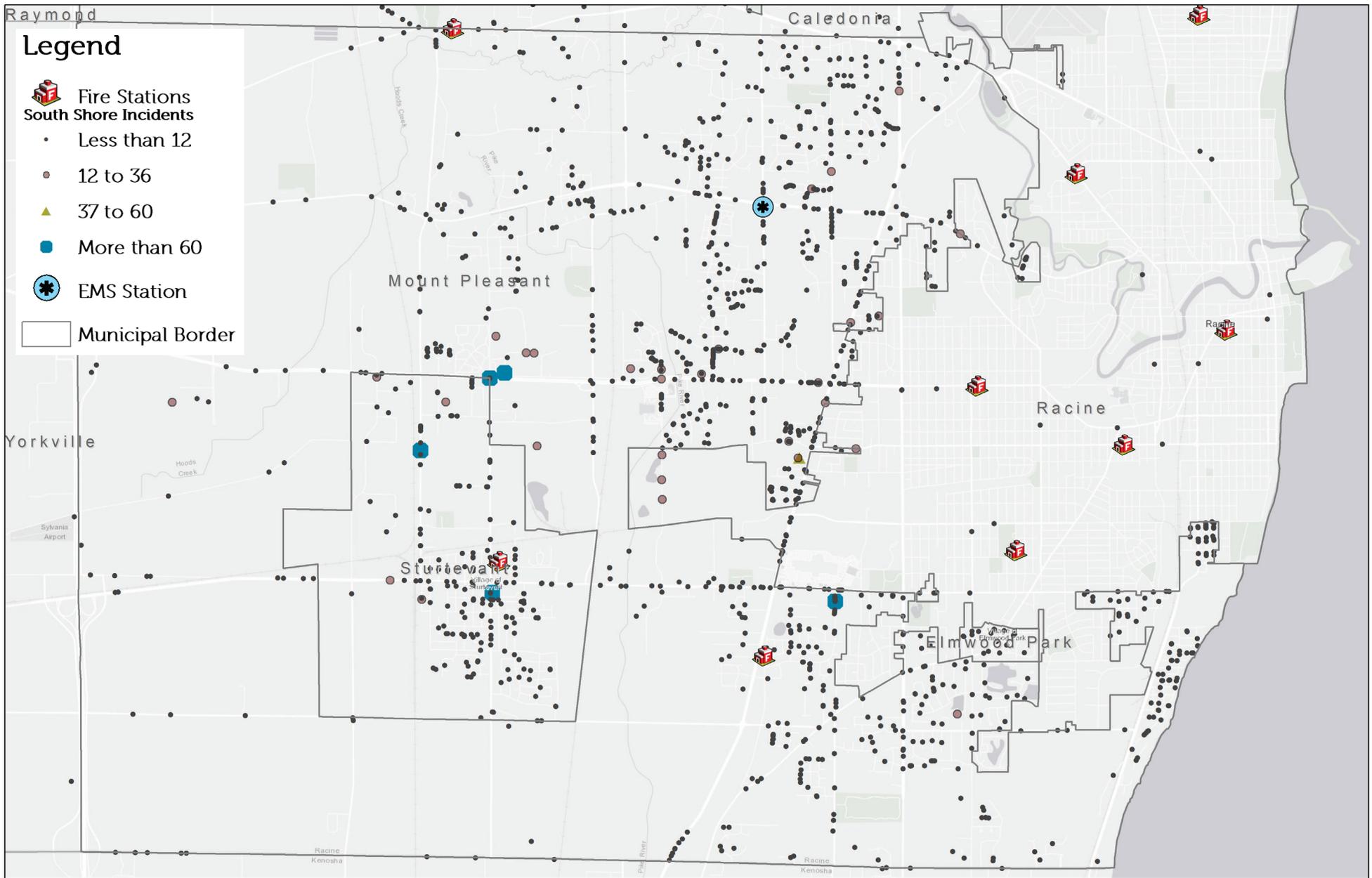
The call categories below are based on the type of situation found by the fire department at the scene. In contrast, similar data cited earlier for RFD and CFD were both based on dispatch information. While the call types are different from the other departments, the clear trend of EMS being the focus of service demand remains for SSFD. At least eight in 10 calls involved an EMS response (indicated by underlined call types) as well as a portion of "Public Assist" calls.

Fire Department Incidents by Dispatch Information

	2015	2016	2017	2018	Total	
<u>Accident –Personal Injury</u>	229	226	248	243	946	6%
Accident –Property Damage	14	16	17	9	56	0%
<u>Adv. Life Support</u>	1849	1859	1964	2148	7820	48%
<u>Basic Life Support</u>	997	934	773	672	3376	21%
Cancel	56	52	109	107	324	2%
Carbon Monoxide	41	40	57	58	196	1%
<u>Drowning</u>	0	0	1	1	2	0%
Emergency Assistance	5	4	6	2	17	0%
FIRE	64	89	82	53	288	2%
FIRE ALARM	169	238	201	204	812	5%
FIREO	119	122	129	142	512	3%
FTEST	11	8		0	19	0%
HAZMAT	1	1	0	0	2	0%
<u>Invalid Assist</u>	207	202	199	223	831	5%
<u>Mobile Integrated Healthcare</u>			13	10	23	0%
NGLEAK	30	26	30	29	115	1%
<u>Pulseless Non-breathing</u>	40	72	73	41	226	1%
Reciprocal Aid In	0	0	1	0	1	0%
Reciprocal Aid Out	156	192	159	161	668	4%
Total	3,988	4,081	4,062	4,103	16,234	

Underlined calls involve an EMS response

Note: These call figures in this table are based on dispatch records, other South Shore records are based on post response incident reports.



Call Distribution

As shown on the map on the preceding page, calls are relatively evenly distributed across Mount Pleasant and Sturtevant. There are few locations that generated more than 60 calls for the fire department in 2018. Notably, the areas of far eastern Mount Pleasant along the lakeshore are closer to several RFD stations than Station 8, and many are outside four minutes from any station. Also, there is an area in northeastern Mount Pleasant that is outside a four-minute drive distance from a full SSFD station, but the new EMS-only station now helps meet that need.

Apparatus and Equipment

SSFD works out of three stations with a scheduled shift size of 19 firefighters and a 15 firefighter minimum. Typically, there are 16 or 17 firefighters on duty because of vacations, trainings, and time off situations. There is a dedicated two-person ambulance crew at Station 8. There is also a three- or four-person engine company at each station. At Station 10, the three-person crew moves between the engine and ambulance as needed based on the call.

Station 9 also typically staffs a two- or three-person quint. When the Station 9 quint has two firefighters assigned, it also has two on an ambulance at that station. Any of the on duty ambulances will meet the quint if it responds to a fire call. All stations will shift personnel to ambulances from firefighting apparatus as needed to answer EMS calls. Likewise, the ambulance crews are fully trained and equipped to staff fire apparatus should the need arise. The department goal is to be able to staff five ambulances with on-duty personnel if the need arises.

South Shore Fire Dept. Equipment

Unit	Station	Type	Year
E10*	10	Engine	2005
T10	10	Pumper Tanker	1994
Q9*	9	Quint	2018
Q8	8	Quint	1998
E8*	8	Engine	2000
E29	9	Engine	2000
E9*	9	Engine	2008
M7*	8	Ambulance	2018
M8*	8	Ambulance	2014
M28 C	8	Ambulance	2015
M38	8	Ambulance	2005
M9*	9	Ambulance	2013
M29	9	Ambulance	2015
M10 C	10	Ambulance	2014

* = Frontline Unit. "C" indicates it is cross-staffed by other crews at the station.

SSFD has multi-function patient monitors, LUCAS CPR devices, and power lift stretchers on each ambulance. It also has an automatic stretcher loading system in one ambulance and plans to expand that capability as ambulances are replaced. Firefighters have their turnout gear replaced on schedule after five years, with the older gear then kept in reserve for five years. Station 8 has a gear wash machine. Stations 8 and 9 both have compressors to fill SCBA tanks. SSFD has an emergency vehicle preemption system that allows an approaching emergency vehicle to signal an upcoming traffic light to turn green to reduce chances of collisions at the intersection for numerous controlled intersections.

Stations

SSFD owns Station 8, which was built in 2011 to serve as its headquarters. It was built to comply with modern fire station design such as isolating potential contaminants from the living quarters and to provide semi-private sleeping spaces and multiple unisex restrooms. Station 9 was built in 1991 by the Village of Sturtevant when the departments were separate. This is the largest station operated by SSFD and is co-located with the village hall. This station has challenges related to inadequate restroom facilities, an inadequate kitchen, and poor separation from contaminants.

Station 10 was built by joint agreement between CFD and SSFD, with Mount Pleasant issuing the bonds but both departments sharing costs equally. The station was built in 1998 and has many of the features of a modern station with separation between potential contaminants and the living area and a commercial-grade kitchen. However, the station has a need for some updating and renovation after two decades of continuous use.

On The Horizon

As noted above, SSFD recently opened a new EMS-only station in the east-central portion of the district at 1221 North Emmersten Road. This station has two dual-purpose firefighter/EMS providers stationed at this location. It is expected that the station will improve the response to this area. The two positions in each shift are an addition to the existing 15 firefighters on duty.

SSFD is also in the planning stages of a major expansion of personnel and another full-service fire station adjacent to the Foxconn build site. The department anticipates adding six people per shift in the next five years for this expansion of service. This expansion will be funded primarily by the revenue from a Tax Incremental District associated with the Foxconn development.

Synopsis

SSFD falls in the middle in nearly every category: personnel (58), budget (\$8.1 million), call volume (11 per day), population served (38,000), front line apparatus (7), and land area (38 square miles). It operates out of two of its own stations and shares one with CFD. It is a growing department with a new EMS-only station and plans for a full fire station near the Foxconn site with additional staff needed for each location. SSFD has also added substantial new technical rescue capabilities in the last three years.

Finances Side by Side

The three departments have similar cost structures with personnel expenses (salaries, overtime, and benefits) making up more than 90% of the budget. They each also keep capital expenses elsewhere in the municipal budget as part of a capital improvement plan. Each department charges for ambulance transports and those transports make up greater than 80% of department activities. However, ambulance billing revenue is budgeted to cover 15% or less of the expenses of each department. The cost per capita in South Shore (the highest) is 34% higher than in Caledonia (the lowest). The cost per call in South Shore (the highest) is 31% higher than in Racine (the lowest).

Comparison of Department Budgets (2019)

	Caledonia	Racine	South Shore
Salaries	\$3,070,520	\$10,963,183	\$4,846,084
Overtime	\$120,000	\$449,500	\$300,000
Benefits	\$1,359,880	\$4,614,293	\$2,287,733
Operations	\$147,500	\$474,001	\$437,400
Admin	\$13,810	\$167,000	\$161,150
Support	\$54,275	\$475,521	\$102,750
Total	\$4,765,985	\$17,143,498	\$8,135,117
EMS Revenue as Share of Expense	13%	15%	12%
Approx. Cost Per Capita	\$178	\$221	\$240
Approx. Cost per Call	\$1,909	\$1,519	\$1,983

As noted above, the comparison of costs are not precise because of different budget methodologies used by the three departments. Notably, retiree healthcare and worker's compensation and liability insurance are not included in the fire department budgets in Caledonia and Racine (they are instead budgeted centrally), but those costs do appear in SSFD's budget. If we included all costs related to the current fire service operations, including retiree benefits and capital costs, it is likely that Racine and South Shore would be much closer in the cost per capita and cost per call comparison than they are with those figures excluded. Importantly, one driver of Caledonia's lower per capita costs is the department's lower staffing levels compared to its neighbors.

Finally, it should be noted that fire department personnel in Racine – unlike the other two departments – do not pay Social Security taxes and are not eligible for Social Security benefits. However, their pension benefit is adjusted to account for that variation, and the Wisconsin Retirement System (WRS) requires the city to pay an equivalent amount toward retirement above what other communities must contribute to the WRS. For example, Racine pays 14.95% of salary to WRS for 2019 while Mt. Pleasant (on behalf of SSFD) pays 10.55%. Consequently, any consolidation plan involving RFD would have to account for this factor.

Responses Side by Side

The calls for service profile for the three departments is quite similar with over 80% of calls requiring some sort of EMS response. However, the rate of EMS calls by population varies from 79 per 1000 residents in Caledonia, to 98 in South Shore, to 130 in Racine. This pattern is seen in other communities where a higher share of poverty often is present with a higher per capita EMS call volume. (Racine's poverty rate is 17% compared to 5.4%, 6.6%, and 8% for Caledonia (5.4%), Mt. Pleasant (6.6%), and Sturtevant (8%). The percent of the population over 65, also often a predictor of higher EMS call volume, ranges from 22% in Mt. Pleasant and 18% in Caledonia down to 13% in Racine and 12% in Sturtevant.

Comparison of Fire Department Responses in 2018

	Caledonia		Racine		South Shore	
<u>ACCPI</u>	<u>164</u>	<u>7%</u>	<u>469</u>	<u>4%</u>	<u>243</u>	<u>6%</u>
ACCPT	20	1%	42	0%	9	0%
<u>ALS</u>	<u>1,339</u>	<u>54%</u>	<u>6801</u>	<u>60%</u>	<u>2148</u>	<u>52%</u>
<u>BLS</u>	<u>413</u>	<u>17%</u>	<u>2096</u>	<u>19%</u>	<u>672</u>	<u>16%</u>
CANCEL		0%	104	1%	107	3%
CRBMON	30	1%	111	1%	58	1%
<u>DROWN</u>	<u>0</u>	<u>0%</u>	<u>5</u>	<u>0%</u>	<u>1</u>	<u>0%</u>
EMERAS	4	0%	2	0%	2	0%
FIRE	55	2%	309	3%	53	1%
FIREA	156	6%	247	2%	204	5%
FIREO	73	3%	278	2%	142	3%
HAZ MAT	2	0%	5	0%	0	0%
<u>INVASS</u>	<u>151</u>	<u>6%</u>	<u>422</u>	<u>4%</u>	<u>223</u>	<u>5%</u>
MIH	0	0%	131	1%	10	0%
NGLEAK	22	1%	96	1%	29	1%
<u>PNB</u>	<u>51</u>	<u>2%</u>	<u>151</u>	<u>1%</u>	<u>41</u>	<u>1%</u>
RAI	0	0%	1	0%	0	0%
RAO	14	1%	16	0%	161	4%
Total	2,494		11,286		4,103	
EMS Calls	2,118	85%	10,075	89%	3,338	81%
Per 1000 Residents	79		130		99	
Fire & Other Calls	376	15%	1,211	11%	765	19%
Per 1000 Residents	14		16		23	

Underlined calls involve an EMS response

The rate of fire and other calls is higher in South Shore (23 per 1000 residents) than in Caledonia (14) and Racine (16). One contributing factor is the high number of Reciprocal Aid Out (RAO) calls for South Shore in which their resources are sent to other communities. About 56% of SSFD's RAO calls are to CFD and another 28% to the west and south. If those were excluded, then the number of Fire and Other calls in South Shore would drop to 18 per 1000 residents.

Comparison of the Collective Bargaining Agreements

Consolidation is one option available to fire departments seeking fiscal sustainability and efficiencies. Collective bargaining agreements can sometimes be a barrier to such consolidations, as reconciling contract provisions across departments can be difficult. More similar bargaining agreements better position departments to merge.

Notably, employees of all three departments have contracts with guidelines for consolidations, requiring that all represented members be employed by the newly consolidated entity as non-probationary employees at the same pay rates. Contracts in Racine and South Shore also require employees to retain their rank and seniority in any merger, and bar departments from modifying the rank structure in pursuit of consolidation.

A review of collective bargaining agreements for the three departments shows some substantial similarities, particularly between Caledonia and South Shore. These two departments share five-step pay scales that require employees to work five years before reaching the top salary. Caledonia and South Shore compensate paramedics similarly, paying a premium of 5% of their base salary and 6% after seven years.

Work schedules also are largely alike in South Shore and Caledonia. Firefighters work 56-hour weeks with 24 hours on duty, followed by 48 hours off.

Health care contributions are fairly similar in Caledonia (employees pay 15% of premium costs) and South Shore (employees pay 12%, but not to exceed \$175 per month). The departments also have similar provisions for employees who are out on disability due to a work-related injury; both pay the difference between worker's compensation and the employee's full salary. Caledonia, however, places a 15-month cap on this compensation while the South Shore contract imposes no clear limit.

There are some noteworthy differences among the departments. While South Shore and Caledonia use a five-step pay scale, Racine has only three steps and a wider variety of titles (private, driver, lieutenant and captain) with different pay schedules. There also are fairly modest differences in pay: as of February 2019, the starting and top salaries in both South Shore and Racine were 7%-8% higher than those in Caledonia. Racine also takes a slightly different approach to paramedic pay. While it also starts off paying a premium of 5% of base salary, the premium scales up four times with length of service, reaching 8% after 11 years.

The tables below show the salary comparisons for firefighters and firefighter paramedics for the three departments and Racine's multiple titles with their steps.

Firefighter Base Salary Comparison (Rates as of 2/1/2019)

	Caledonia	Racine	South Shore
Starting / Probationary	\$48,698	\$52,775	\$52,591
1 Year	\$52,106	\$58,644	\$55,910
2 Year	\$55,514	\$64,512	\$59,114
3 year	\$58,922	\$70,366	\$64,006
4 Year	\$62,330	\$70,366	\$68,956
5 Year	\$65,737	\$70,366	\$70,849

Italics + gray = no change in this year

* Caledonia firefighters hired after 1/1/2016 have five-step schedule shown above. Those hired pre-2016 have only four steps.

* Racine has 15 pay grades. Above is the scale for privates (lowest grade). Other non-brass grades are listed in Appendix 1.

* Racine has six steps for non-paramedic firefighters at start date, 6 months, 1 year, 1 1/2 years, 2 years, 2 1/2 years, 3 years

* South Shore scale also lists a salary of \$76,848 for lieutenants

Firefighter-Paramedic Salary Comparison (Effective 2/1/2019)

	Caledonia	Racine	South Shore
Top non-paramedic FF salary step	\$65,737	\$70,366	\$70,849
With paramedic certification	\$69,024	\$73,884	\$74,391
Paramedic + 3 Years	\$69,024	\$74,589	\$74,391
Paramedic + 7 Years	\$69,681	\$75,334	\$75,100
Paramedic + 11 Years	\$69,681	\$76,088	\$75,100

Notes: * Caledonia paramedics receive 5% premium pay upon certification and 6% after 7 years

* Racine has four pay steps for paramedic firefighters: 5% at certification, 5.5% at 1 year, 6% at 3 years, 7% at 7 years, 8% at 11 years

* Racine has six pay grades; this table shows the lowest non-officer grade. Other grades appear below.

* South Shore paramedics receive 5% premium pay upon certification and 6% after 7 years.

Additional Titles, Racine Only (2/1/2019)

	Driver-Operator	Private-Rescue Squad	Driver-Rescue Squad	Driver-Operator Paramedic
Starting / Probationary	\$53,918	\$54,706	\$55,862	\$75,484
1 Year	\$59,913	\$60,789	\$62,073	\$75,843
2 Year	\$65,909	\$66,872	\$68,285	\$75,843
3 Year to 6 Years	\$71,889	\$72,941	\$74,482	\$76,203
7 Year to 10 Years	\$71,889	\$72,941	\$74,482	\$76,965
11 Year	\$71,889	\$72,941	\$74,482	\$77,726

* Racine has seven pay steps for non-paramedic firefighters: starting, 6 mos, 1 year, 1 1/2 years, 2 years, 2 1/2 years, 3 years

* Racine has four pay steps for paramedic firefighters: certification, 1 year, 3 years, 7 years, 11 years; above assumes they become paramedics at top step for privates

The work schedule in Racine differs from the other two departments. While also on a 56-hour work week, Racine firefighters have 24 hours on duty, 24 hours off, 24 on, 24 off, 24 on, and then four 24-hour periods off. Racine also has separate work schedule expectations for firefighters who work standard 40-hour weeks.

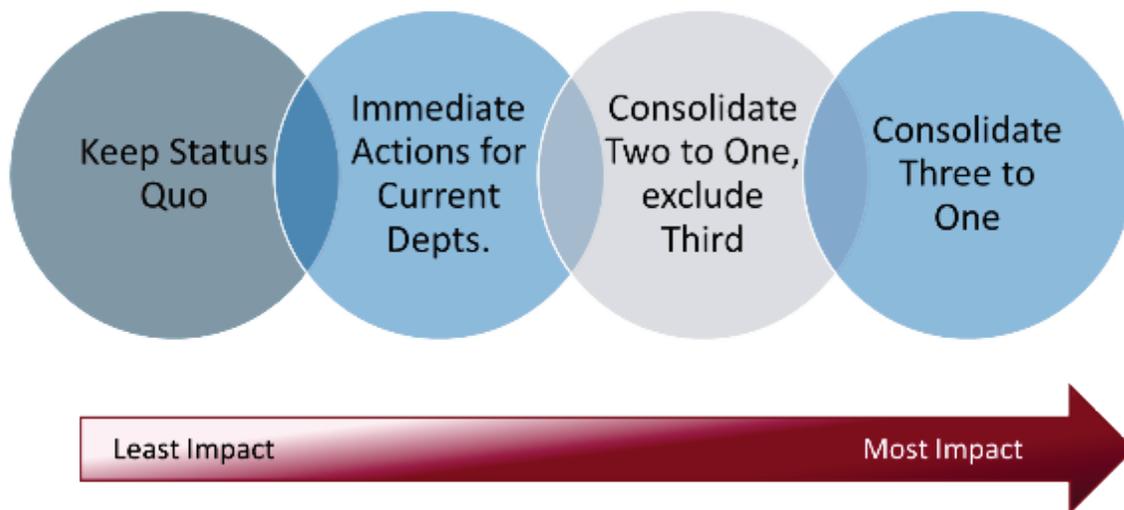
In addition, as of the 2019 budget, health care contribution rates are lower in Racine than the other departments. City firefighters pay 5% of the premium for a high-deductible plan or 10% for a plan with lower in-network deductibles of \$400 for individuals and \$800 for families.

Time off provisions also vary across the departments. Caledonia firefighters accrue seven-day blocks of vacation, but Racine and South Shore firefighters accrue days based on length of service, with some variation in how much time they accrue and when. Sick leave and the amounts that employees are allowed to bank also differ. As for disability, unlike its peers, Racine pays 85% of an employee's salary for up to 60 work days, after which the member must enroll in worker's compensation.

Caledonia also is the only one of the three fire departments that requires employees to live within 30 miles of their station; South Shore has no residency requirement, and while Racine's contract states a preference for local residents, it only requires workers to live in the State of Wisconsin. No departments have a minimum manning requirement for firefighters, but the Racine bargaining agreement does require at least six paramedics on duty citywide.

OPTIONS FOR CHANGE

There are numerous characteristics of the existing fire and rescue services that should be carried forward into a new environment. There also are opportunities to change the operations of the fire departments that would benefit the community through improved service or reduced costs. In this report, as shown in the diagram below, four potential courses of action are considered, ranging from maintaining the Status Quo to Consolidate Three Departments to One Department. Other options – such as different consolidation scenarios including partners out of the study communities or the use of commercial ambulance services – were not given extensive consideration because of the perceived lack of support in the current environment.



As the community considers potential changes for the fire departments, it should identify how best to objectively measure an improved fire service. Examples of performance metrics include:

- Response to pulseless-non breather
- Response to other high priority medical calls
- Effective response to structure fires
- Cost control for both short and long term
- Safe employee workplace
- Capability to perform technical/complex rescues

The communities should identify which of the above factors are the highest priority for them and consider how well their current fire department model meets needs and how it might need to be adjusted to meet service delivery needs and expectations in the future. The five options outlined below are illustrative of a range to be considered by the communities.

Option A: Maintain Status Quo

As noted above, the three departments all provide high-quality service tailored to their communities. There is nothing that needs immediate change to ensure that residents receive excellent emergency medical care and fire service response. However, the status quo has certain characteristics that may prevent the most cost-efficient and operationally effective responses or that may necessitate consideration of modifications to operational or fiscal frameworks in light of changing needs going forward. For example:

- South Shore FD faces the possibility of substantial population growth and commercial development with the Foxconn project. The department has added a new EMS-only station to address service gaps identified prior to Foxconn and has plans for an additional station near the Foxconn site in the near future.
- Racine FD faces a massive capital need for its fire stations as outlined in a recent report received by the city in January 2019. The other two departments also face coming expenses for station renovations and each department has equipment replacement needs.
- It is likely that there will be new chiefs in each department in the next five years, as each is at or nearing retirement age.
- The ambulance transport industry is facing challenges in regard to reimbursement, which might lead to a reduction in EMS-related revenue for the departments.
- Pockets of slower response times due to odd borders and station locations will continue to impact hundreds of calls each year.
- The call volume, especially related to EMS, is likely to continue to climb with population growth and the aging of the population.

Option B: Immediate Actions for Current Departments

A series of actions could be taken by the fire departments that would bring improvement to the provision of public safety to their residents with relatively small adjustments to practices.

Move to Closest Unit Response for EMS and Joint Fire Response on Borders

A “closest unit response” approach would dictate that the closest ambulance unit would be dispatched to the scene of an incident regardless of municipal boundaries. This idea has been considered for several decades, particularly in relation to EMS responses. There was a technical barrier until the unified dispatch center was created several years ago, but now all departments operate on the same radio frequencies and have a common dispatcher.

Using call plotting, we estimate that about 600 calls per year could receive a closer response if a unit from a neighboring department was used (this number would be reduced if this process was only used for higher priority calls). The map on page 31 shows specifically that the southwestern tip of Racine had modest call volume in 2018 that could have been served by an SSFD station under a closest unit

responds agreement, while modest call volume in areas of eastern Mount Pleasant likewise could have been more appropriately served by a Racine station.

We estimate that under a closest unit response approach, about 60% of those 600 calls would come from Racine but evoke a response from South Shore and 40% would go in the reverse direction. However, given that the closest resources would vary when vehicles are outside of the station at other events, the actual impact is difficult to predict and would need to be tracked by the 911 center.

There would be occasions when a closest unit response approach would shift revenue from EMS transport billing from the “home” department to the responding department. That circumstance may need to be taken into account should such an approach be implemented, but it also may equitably balance out depending on actual response patterns.

While we looked at calls based on the station locations, we found that ambulances are not always at their station because of transport, other responses, or training. Dispatchers could also utilize GPS location with each call (or just serious calls) to determine the closest unit. Also, many of the calls within the three small villages (Elmwood Park, North Bay, and Wind Point) that are served under contract with one of the three departments currently are served by a station that is not the closest and could particularly benefit from a closest unit responds approach.

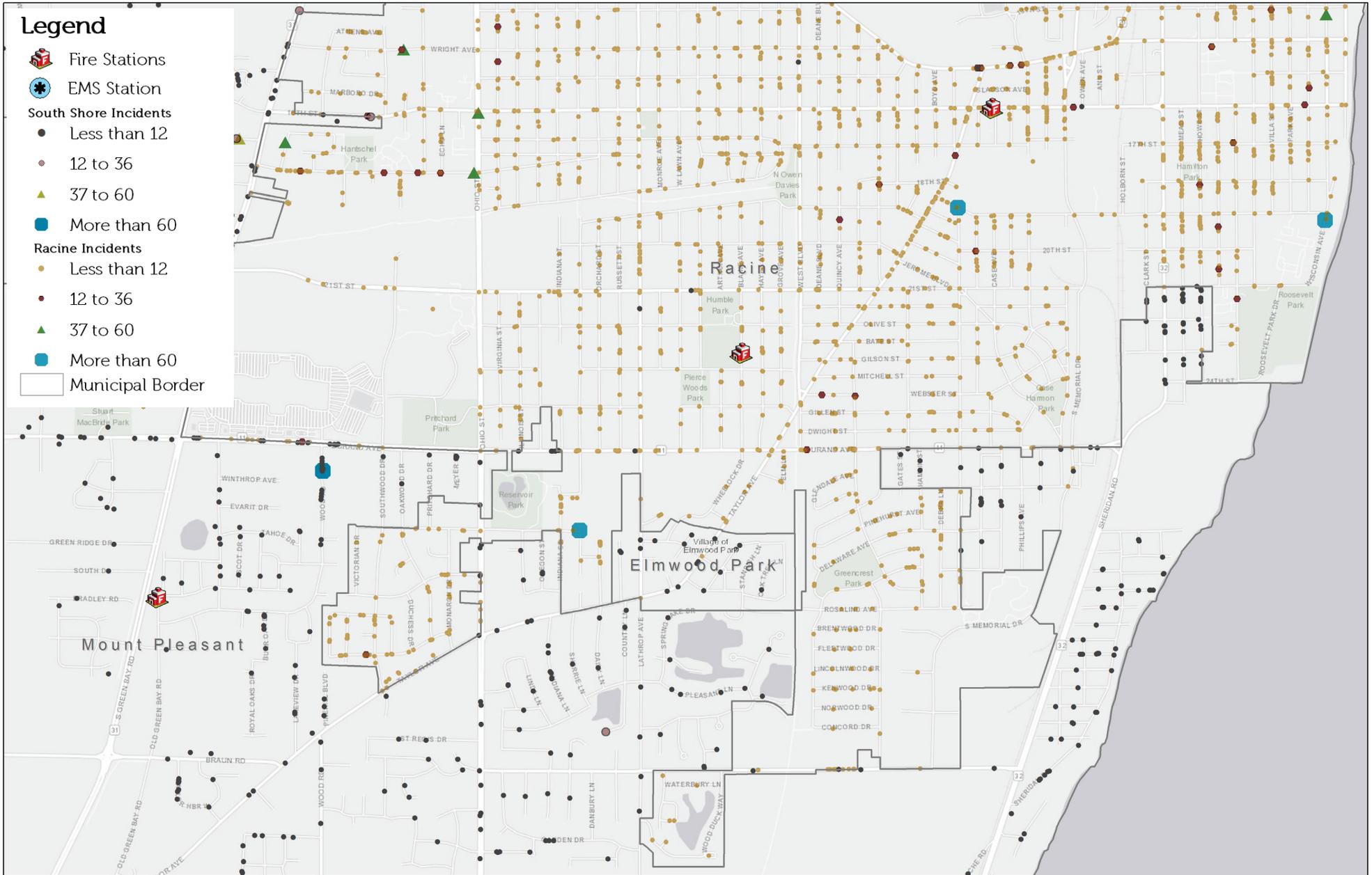
Joint response would be relevant during fire calls where units from a neighboring department would be dispatched to calls near the border of districts to help ensure that adequate firefighting resources arrive promptly. For example, a call for a reported house fire in Racine near the border of Mount Pleasant could receive an engine company from SSFD in lieu of a further away engine company from RFD. This process would reverse for calls on the other side of the border.

Look to Group Purchasing

The three departments spend substantial sums annually on medical supplies, uniforms, protective gear, and apparatus. Although it is difficult to project specific savings, we believe the departments would be able to save money with the joint specification of supplies and apparatus. It would also be possible to use existing group bids, such as the Wisconsin BidSite or Houston/Galveston Area Council Buying Group. The latter has multiple types of fire apparatus, ambulances, and durable medical equipment (stretchers and heart monitors) available for purchase. This option obviously would be most effective if each department could agree to purchase the same types of equipment and apparatus. The three departments already do this to some degree, but it could be expanded.

Use Dynamic Resource Deployment

Fire stations have been positioned based on anticipated community need and historic call volume. When a unit is assigned to a call, that area is typically left uncovered until that unit returns to service. One method that could be deployed to alleviate this problem is to move up units to fill the gap from an area that has adequate resources. While this method is used under MABAS for large incidents, it is not used for the more common spikes in EMS call volume. For example, if Caledonia has two EMS calls in the eastern portion of its territory, then an ambulance from Racine could be positioned at Caledonia's Station 12 until one of the ambulances returned back to service.



Switch to Two-Person Ambulances

The vast majority of ambulances in the United States use a two-person crew, but some fire department ambulances use a three-person crew.

The laws of Wisconsin require that before paramedic level⁷ care can be started, two or more paramedics must be present on the scene. The three fire departments in this study usually schedule two paramedics to each ambulance, although this requirement is sometimes met by having another fire apparatus with a paramedic respond to the scene.

Both Racine and Caledonia use three-person ambulance crews for all units and SSFD for the unit at Station 10. There are some practical justifications for this staffing model, primarily related to ensuring adequate firefighting staff⁸ on duty for the department and enough EMS personnel on a scene to manage critical patients. While the third person may improve the safety of the crew and call efficiency, however, that person is not inherently needed for the appropriate provision of EMS care, especially when other units are typically available to provide the same type of support on an as needed basis.

A move to two-person ambulances would immediately allow RFD to reassign a paramedic from each of its three front line ambulances. These personnel could be used to staff an additional ambulance, augment fire apparatus companies or be used to float to reduce the number of times that overtime is needed to meet minimum staffing numbers. The positions also could be eliminated over time through attrition.

Each full-time firefighter position eliminated would bring savings of about \$101,000,⁹ which means that switching to two-person ambulances could enable Racine to save about \$1.2 million per year in payroll and benefits once the 12 positions were vacated. However, there is a significant barrier because the three-person ambulance crew is a part of the existing labor agreement and a change would require negotiations. The current contract expires in 2020 and this clause has reportedly been a part of the contract for several cycles. It is not known if there has ever been an effort to change this clause and the likelihood that such a change (if desired) could be negotiated in the future is similarly unknown.

A change to two-person ambulances in Caledonia would require the department to adjust its work models. Currently, each station has a three-person crew that responds using an ambulance or fire apparatus, depending on the nature of the call. One method to transition to two-person ambulance crews would be to have Station 11 move to two-person staffing and Station 12 to four-person staffing.

⁷ Paramedic level care, sometimes referred to as advanced life support, is the highest level of EMS care and involves advanced diagnostics as well as medications for a variety of emergent and life threatening conditions.

⁸ Because the Racine staffing model has three firefighters per engine, the department needs to have an ambulance respond to fires so that the three-person ambulance crew can be used to fulfill firefighting tasks more quickly. However, as part of a complete resource redeployment plan, enough firefighters would be available for the relatively rare fire that occurs.

⁹ Salary of \$72,000 plus benefits of 40% for each firefighter is used for a simple estimate of \$101,000 of salary and benefits saved for each firefighter reduced. Because of vacations and other time off, RFD needs at least four firefighters to fill each line position.

This would allow the busiest section of the community to have two ambulances staffed with two firefighters. The reallocation of staff among the stations would change the model of having an officer as a third person on every call. This change could impact the ability to fight fires because the crews would work in pairs instead of three-man crews, which could adversely impact the operations of fire apparatus. Still, it bears further consideration because it could improve the ability to put additional ambulances on the road promptly to respond to EMS calls, which account for eight out of 10 calls.

Adopt New Staffing Model as Part of Long-Term Agreement On Station 10

Station 10 was jointly built by SSFD and CFD and was operated under a 20-year agreement that expired in 2018. The operations have continued on a year-to-year basis since the expiration. The contract required that each of the departments staff the station with three firefighters. The assignment of units from the station to calls has been handled under agreements between the two chiefs with some changes over the years. The call volume in that area, particularly on the Caledonia side of the line, is relatively small compared to other sections of the territory.

One suggestion has been to reduce the number of firefighters in the station to three or four from the current six. Each department could move to two firefighters or one of the departments could have three firefighters in the station. Under a four-person model, an EMS call could be handled by an ambulance staffed by either department and a fire call could be handled by all four on a single piece of apparatus. Under a three-person model, two would handle EMS calls and all three would respond on fire calls. In either case, the excess personnel could be redeployed to other areas served by the departments. This could be particularly beneficial to CFD, which recently secured a federal grant to enhance staffing levels at other stations but faces a significant local cost increase when the grant expires.

Expand Fire and Technical Training Capacity

All departments leave the area for live fire training, although the training facilities are relatively close by at the Kansasville Fire Department, 30 minutes from the center of Racine. This proximity and the fact that it is shared with numerous other departments, however, still does not permit departments to regularly send several companies at a time to practice the low-frequency, high-risk evolutions associated with fire suppression or technical hazard response. It can be cost-prohibitive for a single department to develop, fund, and operate fire training grounds, but the experience is invaluable, especially as the incidence of fire becomes less frequent. The joint development of a centrally located fire training and technical rescue facility, perhaps as part of another capital project, could lead to a cost-effective manner for creating a more effective firefighting force.

Option C: Merge Caledonia and South Shore Fire Departments

An alternative to merging the three fire departments into one would be to have Caledonia join with Mount Pleasant and Sturtevant to form a single fire service. The easiest path to this consolidation would be to expand the existing South Shore Fire Department agreement to include Caledonia. This would require the approval of each of the three villages. The agreement provides a structure for resource and cost sharing between two villages and could be expanded to the third. This option would build on the two decades of success related to the joint operation of Station 10 by CFD and SSFD.

When SSFD was formed, Mount Pleasant was designated as the fiscal agent. Sturtevant paid its partner a fixed amount for the first five years of the agreement and then the cost-sharing switched to a calculation based equally on calls for service, population, and equalized property values. The resulting calculation has Mount Pleasant paying about 85% of costs and Sturtevant the remainder.

SSFD recently expanded its workforce with six additional full-time employees to staff its EMS-only station. In addition, SSFD will be using money from tax increment financing to build a new fire station and add more staff near the Foxconn site. Meanwhile, CFD has secured a federal grant to partially support six additional full-time employees, but those positions will need to be fully supported locally after the three-year grant expires.

Some of the benefits of a single department serving all three villages include:

- A larger workforce that could reduce the need for overtime to cover for injury, illness, and vacation;
- Reallocation of administrative tasks such as planning, training, finance, and inspections to produce greater efficiency;
- Address the need to hire and pay for additional firefighters by instead redeploying the existing workforce based on actual demand, particularly related to Station 10 (though this could possibly be accomplished without consolidating);
- Potential cost savings through more efficient procurement;
- Reduction of the fleet of backup apparatus; and
- Expansion of the pool of firefighters to participate in special operations training.

A challenge would be the need to adjust the collective bargaining agreements between the two departments, which could be a heightened problem because CFD is currently experiencing a labor negotiation impasse. In addition, the two departments each report that the other has a different culture¹⁰ that will need to meld.

Another challenge would be the difference in per capita cost between the two departments, with CFD at \$178 and SSFD at \$240. Under a merger scenario, it is likely that Caledonia's costs would increase, although there is also promise that it would benefit from a higher level of service. A portion of the cost

¹⁰ Fire departments, like all workplaces, develop a particular culture over time associated with behavior expectations, leadership, community interactions and training. Fire department culture is often stronger than most workplaces because the firefighters spend 24 hour shifts together every third day. This can make it harder to change the organizational culture.

differential is attributed to CFD's lower staffing level, so the gap could shrink with the recently secured SAFER grant. Also, when evaluated on a per call basis, the two are much closer at \$1,909 for CFD and \$1,983 for SSFD. It is probable that a consolidation of the two departments would create some cost shifting between the villages, but this could be minimized through a thoughtful planning process and negotiation.

Option D: Racine Provides Fire Protection for Caledonia

A two-way arrangement between Racine and Caledonia is another option for providing fire service. Given the different sizes of the two departments, it would be difficult to consider this change to be a merger of equals. Consequently, instead of pursuing a joint department with joint governance, the likely approach would be for Caledonia to contract for service with Racine similar to the arrangements that exist for the smaller villages in Greater Racine or with the City of Milwaukee and neighboring Village of West Milwaukee.

Under this arrangement, Caledonia would work with Racine to transfer its existing workforce with seniority and work location protections to positions at RFD. Caledonia would then contract with Racine for provision of fire and EMS service to the village. Caledonia would likely retain ownership of its stations but transfer its apparatus to Racine.

The key decision factor is whether, under such an agreement, RFD could provide equivalent or improved service for Caledonia at a lower cost than Caledonia could provide for itself with its own independent department. Any evaluation of that question needs to consider the recently approved staff expansion for Caledonia and whether the same or better service enhancements resulting from such expansion could be realized at lower cost from a contractual arrangement with Racine.

Several of the benefits cited for a potential Caledonia-South Shore merger might also be expected from a contractual arrangement between Racine and Caledonia. Those include the potential to realize efficiencies through redeployment of firefighter and command staff and apparatus throughout the larger service area; the elimination of a chief position; and the merger of administrative tasks between the two departments. In addition, such an arrangement could allow RFD to enjoy a new, significant source of revenue that ostensibly would exceed the cost required to serve Caledonia because of economies of scale and more efficient use of existing capacity.

It must be recognized, however, that Caledonia would need to relinquish some local control of its fire and EMS services and instead rely on enforcement of contractual provisions to ensure that it is receiving an appropriate level of service. Whether this would be acceptable to Caledonia elected officials and citizens is unknown.

Note: A third two-way consolidation option – between Racine and South Shore – did not receive exploration in this report for a variety of reasons, but could be considered under either an expansion of the South Shore agreement or a contractual agreement with the City of Racine. Again, arrangements would need to preserve existing workplace protections and the service would need to be performed at a similar or lower price point.

Option E: Create a Unified Fire Department

A single fire department serving a diverse population of 140,000 residents and 100 square miles of varying population density could lead to both improved service and impactful costs savings. As noted in the key findings, the departments are providing high-quality EMS and fire service to their community. The departments do have adequate resources to provide the necessary services, although the resources are concentrated geographically in Racine. They are facing large challenges including potential large commercial development and accompanying population growth. Many of the fire stations need substantial improvements or replacement.

A unified department would have benefits that could be realized early in its existence including:

- Equitable distribution of resources in the community through the detailed planning process;
- Elimination of unnecessary backup equipment;
- Larger staff would reduce overtime needed to cover for injuries and vacations;
- Specialization, such as training and inspection, could be shared across the whole community;
- Reduction of some leadership positions; and
- Possibility to eliminate needed staff expansion in South Shore and Caledonia.

Despite these potential benefits, it is also important to recognize that there would be significant legal and logistical challenges involved with consolidating that would take considerable staff resources and negotiation to address. Those include restructuring collective bargaining agreements, developing a new resource allocation model that matches service demand, and creating an equitable cost sharing arrangement.

Potential for Cost Savings

Modeling the fiscal impact of a consolidated department is difficult without decisions being made about staffing levels for command and line positions. Collective bargaining has a substantial impact on any of the cost levels.

Furthermore, any assumptions about how costs would be distributed likely would produce winners and losers and may deter objective consideration before actual negotiation has taken place. For example, as a rough guide, the cost of the three fire departments in 2019 is \$30 million. That cost spread evenly across the population would lead to an estimated per capita cost of \$214. This would be a nearly 20% increase in per capita cost for Caledonia, a 3% decrease for Racine, and an 11% decrease for South Shore. If the cost-sharing agreement also included calls for service as a factor,¹¹ then the relatively low volume would lead to a lower increase in cost per capita for Caledonia while the others would experience fewer savings. Of course, Caledonia's costs will increase in the future anyway because of added staff hired under the SAFER grant.

Despite these limitations, we can estimate that for each position at the chief level that was eliminated, there would be an estimated reduction of \$175,000 in salary and benefits or a 0.6% savings of total

¹¹ The current South Shore fire department agreement uses a combination of calls for service and population to determine the cost sharing between the two communities.

expenses. For any firefighter position eliminated, that savings is estimated to be \$105,000 or 0.3% of total expenses. One scenario, based on moving to two-person ambulances and eliminating two chief positions, could lead to 12 firefighter positions and two chief positions being eliminated with an estimated savings of 5.4%, or \$1.6 million. Of course, a move to two-person ambulances might be possible without consolidation.

Other savings from this model could come from a consolidation of fire stations in the City of Racine because of the substantial overlap of response zones in the city and as a strategy to avoid rebuilding each of the existing stations to meet compliance with modern operational standards. This might not produce a reduction in companies, but rather a reallocation of the companies to better located and updated stations. Racine also could make a change in how it deploys its resources outside of a consolidation effort and gain some cost savings on its own.

Path Forward

In order to move toward a more efficient, effective, and logical fire service delivery model, the four municipal governments would need to identify the tangible benefits they wish to pursue, some of which are outlined in the options above and others which may emerge in the planning process. Regardless of which model is pursued, appropriate measurements for the benefits should be developed to ensure that the changes have the intended effect. Measurements could include lowering response times to critical calls, limiting expenditures for capital needs, and controlling personnel costs.

Once the areas for improvement are identified, a change team involving municipal leadership, fire service leaders, fire department unions, and community stakeholders will need to make a good faith effort to develop a plan to achieve those goals and overcome the barriers to change. The benefits that are sought will define the scope of the project and dictate which stakeholder groups will need to participate on the change team.

The existing fire and EMS system has developed over generations and large-scale changes will take a concerted effort and time to implement. Steps that will likely need to occur along the path forward include modifications to collective bargaining agreements, renovations to facilities, rebranding of equipment and organizations (should any of the consolidation options be pursued), and the development of inter-municipal agreements. Each step has the potential to stall the process but they are essential for the development of an improved model. In the end, the ultimate objective is for the community to receive improved service at a similar or lower cost.

CONCLUSION

The fire and rescue services in the eastern portion of Racine County provide high-quality services to their residents using an operational model that developed over generations. The majority of the service demand is for emergency medical services with about eight in 10 calls requiring an ambulance response. The service demand and costs for service are not spread evenly across the three communities, with Racine having higher call volume per capita and needing a higher ratio of staff to meet that need. South Shore is experiencing a higher cost per capita as it expands and improves the services it provides.

	Caledonia	Racine	South Shore
Population Served	26,727	77,555	33,873
Area Served	46.8	15.5	38.2
Fire Dept. Budget (2018/19)	\$4,765,985	\$17,143,498	\$8,135,117
EMS Revenue as Share of Expense	13%	15%	12%
Approx. Fire Cost Per Capita	\$178	\$221	\$240
2018 EMS Calls	2,116	9,944	3,338
2018 Fire Calls	381	1342	765
Firefighting Sworn Staff	40	141	57
Typical Shift Size	10	42	15
Fire Fighters per 1000 residents	1.50	1.82	1.68
EMS Calls per 1000	79	130	98
Fire Calls per 1000	14	18	23

While the fire departments do provide high-quality service to the community, they are also facing substantial challenges in the near term with the need to invest to serve a changing community and to address deferred capital costs. There are opportunities to improve the service to the community and produce greater cost efficiency by making some relatively small changes, such as moving to closest unit response regardless of municipal boundary or changing the number of personnel on ambulances. There is also the opportunity to move toward a consolidated department that addresses the needs of the community across a broader population and service area. Any of the changes should focus on a goal of an improved level of service at a similar or lower cost.