

Fire Department Staffing Study

for



Edwardsburg Joint Fire Board

Area Served

- Village of Edwardsburg
 - Jefferson Township
 - Milton Township
 - Ontwa Township

Submitted By:
McGrath Consulting Group, Inc.

December 2022



Offices

Jamestown, TN. Hanover Park, IL. Waukesha, WI. Strongsville, OH.

Table of Contents

Executive Summary	6
Report Introduction	8
Project Consulting Team Members	8
Dr. Tim McGrath – Project Manager	8
Fire Chief Robert Stedman – Fire/EMS Lead Consultant	9
Recommendation - Priority Hierarchy	10
Community Information	11
Governance	12
Interlocal Fire Department Agreement	12
General Purpose:	12
Management:	12
Board Authority:	12
Property and Fire Station:.....	13
New Facilities or Equipment:	13
Contribution for Operating Expenses:	13
Financial Statements:	13
Annual Audit:	13
Agreement Term:.....	13
Edwardsburg Joint Fire Board	14
Edwardsburg Fire Department	14
Bylaws Joint Fire Board Overview	15
Board Members	15
Officers.....	15
Fiscal Year	15
Powers of the Board	15
Fire Department	15
Staffing	16
Paid on Call Members	16
Paid on Call Salaries	17
Recommendations – Paid-on-Call Salaries	18
Staffing Options.....	19
Full-time Staffing.....	19
Part-Time Staffing Daytime Hours	19
Staffing with Duty Crews	20
Recommendations – Staffing Options	21
Recruitment – Paid on Call Members.....	21
Recommendations - Paid on Call Members and Recruitment.....	22
Fire Department Operations	23
EMS Operations.....	23
Fiscal	24
Edwardsburg Fire Department Budget.....	24
Capital Outlay Needs.....	28
Future Operational and Capital Budget Needs	28

Recommendations – Future Possible Funding Sources.....	29
Possible Partnership with Edwardsburg Ambulance Service	31
Recommendations – Ambulance Partnership	31
Emergency Activities.....	32
Why Retrieve Emergency Response Data?	32
Fire Service Data Crossroad.....	32
Good Data Definition	33
Data Quality Control	34
Recommendation – Data Quality Control.....	34
Edwardsburg Fire Department Data	34
National Fire Incident Reporting System (NFIRS)	34
NFIRS Categories.....	35
NFIRS Sub-Categories.....	36
Recommendation – False Alarms	37
Incidents by Nature	37
Incidents by Month	38
Incidents by Weekday	39
Incidents by Time of Day	40
Overlapping Incidents (aka: Simultaneous).....	40
Recommendation – Overlapping Incidents	41
Calls By District	41
Mutual Aid.....	43
Mutual Aid Box Alarm System (MABAS).....	44
Edwardsburg Fire Department MABAS	45
Response Time.....	46
Response Time Components	46
Who Controls Response Times.....	47
Public Safety Answering Point (PSAP-aka, Dispatch)	49
Edwardsburg Fire Department Response Time Data	49
National Industry Standards	50
National Fire Protection Association (NFPA).....	50
NFPA 1710 or NFPA 1720	50
Volunteer Fire Department	51
Why Does It Matter Which NFPA Code?	51
Suppression Staffing and Response NFPA 1720 Standard	51
NFPA 1720 Special Interest.....	52
4.3 Staffing and Deployment	52
4.4 Annual Evaluation.....	53
Quadrennial Report.....	53
4.5 Fire Suppression Operations	53
Recommendation – NFPA Standards.....	54
Occupational Safety and Health Administration (OSHA)	54
Recommendation – OSHA	55
Center for Public Safety Excellence (CPSE).....	55
Recommendation – Accreditation	55

Community Education	56
Recommendations – Community Education and Support.....	56
Summary of Recommendations	58
Appendix A – Data Request	60

Table of Figures

Figure 1: Townships Located in Cass County, MI.....	11
Figure 2: Data Description:	33
Figure 3: 3 Year Calls by District 2019-2021	42
Figure 4: Calls by District by Percent 2019-2021	42

Table of Tables

Table 1: Report Priority Hierarchy	10
Table 2: Years of Service of Edwardsburg Fire Department Paid-on-Call FD Members	16
Table 3: Annual Cost of Paid-on-call Paid per Call	18
Table 4: Annual Estimated Costs of Training	18
Table 5: Part-Time Daytime Staffing Costs 40 hours Per Week.....	19
Table 6: Annual Duty Crew Estimated Costs.....	20
Table 7: Edwardsburg FD Budget 2021-22 & 2022-23.....	26
Table 8: End of Budget Year Balance Sheet 2019-20 to 2022-23 through 9-30-22	27
Table 9: 5 Yr. Loan Amortization Schedule	28
Table 10: Costs of Members Pay and Staffing Options.....	29
Table 11: Nature of Calls for the Edwardsburg Fire Department 2019 - 2021	35
Table 12: Overlapping Incidents 2019 - 2021	41
Table 13: Calls By District and of Percentages for 2011-2021	42
Table 14: Total Mutual Aid 2019 - 2021.....	43
Table 15: Mutual Aid Given & Received 2019 – 2021.....	44
Table 16: NFPA 1720: 4.3.2 Staffing and Response Time (edition 2020)	48
Table 17: Average Response Times 2019-2021	49
Table 18: Edwardsburg FD Membership.....	51
Table 19: NFPA 1720: 4.3.2 Staffing and Response Time (edition 2020)	51

Table of Charts

Chart 1: Revenue from Townships 2021-22 & 2022-23.....	24
Chart 2: 2021-22 & 2022-23 Budget - Revenue & Expenses	25
Chart 3: Causes of FF Line of Duty Deaths	37

Chart 4: 3-Year Average Calls by Month 2019-2021..... 38
Chart 5: Incidents by Month 2019 - 2021 39
Chart 6: Calls – Day of the Week – 3 Years Percentage..... 39
Chart 7: All Calls - Time of Day - 3 Year Percentages 40
Chart 8: Response Time Responsibilities 47



summary

Executive Summary

The intent of the Executive Summary is to provide an overview of the critical issues and opportunities identified by the consultants during the study. The reader is highly encouraged to read the document in its entirety to gain an understanding of the recommendations presented within the report. Reading only the Executive Summary does not provide ample information on which to base decisions or to judge the recommendations made within this report. It is important to understand that this type of study is a snapshot in time, and findings were based on assessments of the Edwardsburg Fire Department during site visits as well as the materials and data provided by stakeholders. In addition, a number of the fire department members and some of the Edwardsburg Joint Fire Board members were interviewed by the consultants.

McGrath Consulting Group, Inc. was commissioned by the Edwardsburg Joint Fire Board to conduct a study to focus primarily on the current and future staffing needs for the Edwardsburg Fire Department. The purpose of the study was to focus primarily on the staffing issues related to the operations of the Edwardsburg Fire Department. The consultants reviewed other areas of the fire department that affect the staffing including operations, current staffing levels, current membership and recruiting, organizational structure, call volumes, and budget and funding. The consultants communicated with the local ambulance service about potential partnerships to address the staffing issues.

Like many fire departments the Edwardsburg Fire Department call volume is increasing for many reasons and they are also experiencing a decrease in available staffing. The Edwardsburg Fire Department does not provide medical first responder level services, but the Edwardsburg Fire Department does respond with the Local EMS Service to traffic accidents by providing emergency extrication services. In addition, the Edwardsburg Fire Department does respond with the Local EMS Service to help with lift assists. The increase in emergency call volumes is creating a heavy burden on the responses expected by the fire department members. The increased activity of a small group of paid-on-call members creates problems of a shortage of responding personnel during certain times of the day and the potential burnout of some department members. Staffing during daytime hours is very limited due to the fact most of the Edwardsburg Fire Department members work fulltime at other jobs.

The major concern of the Edwardsburg Joint Fire Board and the Edwardsburg Fire Department is how to maintain fire department staffing to answer the increase call volumes in a cost-effective manner.

Currently the Edwardsburg Fire Department is funded primarily by the revenue received from the three Townships of Ontwa, Jefferson, and Milton served by the fire department. All of Ontwa Township

receive services from the Edwardsburg Fire Department and about half of Jefferson Township and about half of Milton Township received services from the Edwardsburg Fire Department. Each of the Townships collect funds for the Edwardsburg Joint Fire Board and these funds are used to support the Edwardsburg Fire Department. One of the challenges faced by the Edwardsburg Joint Fire Board is the amount of funds generated for the fire department are limited and although the funds currently support the fire department operations any changes to staffing and capital outlay needs will be difficult to fund under the current revenue model.

Information regarding the Edwardsburg Fire Department staffing problems has been identified in this report. The study has developed options and recommendations for addressing the staffing issues and to prevent further fatigue by fire department members. The additional funding required to the operating budget for staffing needs and to the capital budget for long-term costs will need to be addressed by the government officials with the support of the citizens of the communities served.

Again, the reader is encouraged to review the entire document in order to understand the background and data regarding the recommendations contained herein. This Executive Summary is not all-inclusive of every recommendation, but rather is a brief introduction of what the Consultants feel are the more immediate and critical issues for the Edwardsburg Joint Fire Board and the Edwardsburg Fire Department to address.



Report Introduction

McGrath Consulting Group, Inc. was hired by the Edwardsburg Joint Fire Board to conduct a comprehensive study of the future staffing needs for the Edwardsburg Fire Department. The purpose of the study was to focus primarily on the current and future staffing needs for the Edwardsburg Fire Department. The final study will provide the Edwardsburg Joint Fire Board with a detailed report for the future staffing needs of the fire department; including, but not limited to, opportunities, current and future operational challenges, and providing the options for providing additional fire department staffing in the most cost-effective manner. The final report will address possible future changes in fire department staffing with recommendations and potential costs for the staffing options. The report will identify future costs associated with the possible staffing options identified and to meet the needs of the Edwardsburg Joint Fire Board and the citizens being served by the Edwardsburg Fire Department.

For the consultants to conduct a complete assessment staffing needs of the Edwardsburg Fire Department it is important to understand that a complete assessment requires that many areas of the fire department be evaluated in order to get a complete analysis of the current fire department operations and to understand what the future needs will require. As a result, the consultants also reviewed areas such as operations, current staffing levels, organizational structure, call volumes, resource deployment, budget, and funding.

Everyone interviewed was very professional and spoke very highly of the services provided by the Edwardsburg Fire Department and the fact that the Fire Department and the members were highly respected within the community.

Project Consulting Team Members

Two consultants were assigned to this project; each handled topics that were appropriate to their specific skills and expertise. It is important to draw to the attention of the reader that the intent of the consulting team was to write a report that identified areas of excellence as well as areas that have opportunities for improvement. The consultants assigned to this study were:

Dr. Tim McGrath – Project Manager

As CEO of McGrath Consulting Group, Inc. Dr. Tim McGrath is the visionary of the organization. His 33 years of experience in Fire and EMS as well as his ability to develop innovative solutions makes McGrath Consulting different than other firms. Dr. McGrath started his career as a volunteer firefighter and went through the transition of an informal group of civic minded individuals to an integral department within

the Village of Gurnee, IL. During his tenure with Gurnee, the Village rapidly grew from a small bedroom community to one that hosts a Six Flags Great America, and at the time, the world's largest shopping center – 2.2 million square feet under one roof. Dr. McGrath was in administrative positions during both of the ventures, so he understands the opportunities and challenges growth brings to the fire service.

Dr. McGrath was part of the first paramedic pilot program in the State of Illinois. Through his leadership, he brought in the first non-education-based paramedic training program in the City of Brookfield Fire Department. Thus, the City of Brookfield Fire Department became a profit center training all paramedic personnel for Waukesha County, WI.

Dr. McGrath's passion is in consolidation of services. This can entail a wide range of relationships from simply sharing resources to full consolidation and integration of services. Thus, conducting an analysis of each department, Dr. McGrath can identify the areas for greater cooperative efforts that continue to provide quality services in a cost-efficient manner.

Through his experience and innovative mind set, Dr. McGrath can identify and address key issues – current and future. It is through this combination of education and work experience, as well as working with over 170 organizations in 21 states, that he brings a vast amount of first-hand knowledge to the assessment of emergency services.

Education

Walden University -Doctorate – Administrative Management

Dissertation: Attitudes on Consolidation in the Fire Service

Webster University - Master of Arts – Public Administration & Management University of

Wisconsin – Stout - Bachelor of Science – Industrial Education

College of Lake County - Associate Degree – Fire Science Technology

Fire Chief Robert Stedman – Fire/EMS Lead Consultant

Fire Chief Stedman is a Senior Consultant with McGrath Consulting Group, Inc. Prior to joining McGrath Consulting, Fire Chief Stedman spent over 20 plus years in the fire service starting as a firefighter, then moving up the ranks to Fire Chief for the City of Waukesha, WI. As Fire Chief for the City, he supervised a career staff of 98 members serving approximately 22 square miles of a growing community which included residential, commercial, and retail areas.

Currently Fire Chief Stedman has served for over nine years as Fire Chief for the South Shore Consolidated Fire Department, a consolidated fire department in Southeastern Wisconsin. The department serves two villages protecting about 35,000 residents covering an area of about 33 square miles. The department has 66 full time members and provides fire and EMS Paramedic services, a Technical Rescue Team, a Hazardous Materials Team, and a Dive Team.

Fire Chief Stedman has been responsible for all activities of a metropolitan fire department. He has provided leadership and support to strategic planning, budgeting, Basic Life Support and Advanced Life (Paramedic) EMS services, communications, and special technical rescue teams. The department under his leadership also serves as the Racine County Level B Hazardous Materials Team.

In addition to actively serving in the fire service, Fire Chief Stedman has also been involved in the education of public safety as a College Dean for six major program areas including Fire/EMS, Law Enforcement and Homeland Security at a Technical College. These positions included coordinating and planning the curriculum, faculty, and program evaluation. He was also employed by the Milwaukee Area Technical College system as Manager – Emergency Management Grant Project for a grant project to develop emergency management and emergency operations center plans.

To add diversity to his experience, Fire Chief Stedman served as a Town Board Supervisor for one of Wisconsin’s largest townships. In his capacity as Supervisor, he served as the Chairperson of the Finance Committee which included the automation of departments, and the remodeling of the Town hall

Fire Chief Stedman is a member of the International Fire Chiefs Association; Past Chair of Southeastern WI COAD (Citizens and Organizations Active in Disasters); a past member of the State of WI Fire Service Training Fire Officer Curriculum Committee; and City of Waukesha Information Technology Advisory Committee.

Education

- University of Wisconsin – Stout Master of Science – Vocational & Technical Education
- Southern Illinois University Bachelor of Science – Fire Science Management
- Gateway Technical College - Associate Degree – Fire Science

Recommendation - Priority Hierarchy

The recommendations made within this report utilize the table below as to the priority given by the consultants by consensus procedure:

Table 1: Report Priority Hierarchy

Report Priority Hierarchy		
Priority	Definition	Example
1	Urgent /Immediate	Recommendations that require immediate or action/inaction by the governing body. Examples include but are not limited to: compliance with regulations, laws, life safety, physiological or environmental needs.
2	Pressing	Significant impact on the organization; action needed as soon as possible.
3	Important	The organization will benefit by addressing soon, items that should be accomplished.
4	Future Consideration	Items that need to be addressed; develop future plan of action, low consequence of delay in action.
5	Information Only	The organization should be aware; take it under consideration.

Community Information

The communities involved with the Edwardsburg Fire Department are all located in Cass County, Michigan, which according to the 2020 census had a population of 51,589. Cass County is located in the South Bend-Mishawaka, IN-MI, metropolitan statistical area, which has a population of 316,663. The county seat is the Village of Cassopolis, which has a population of about 1,774. According to the U.S. Census Bureau Cass County has a total area of 508 square miles of which 18 square miles is water. Cass County is the smallest county in Michigan by total area.

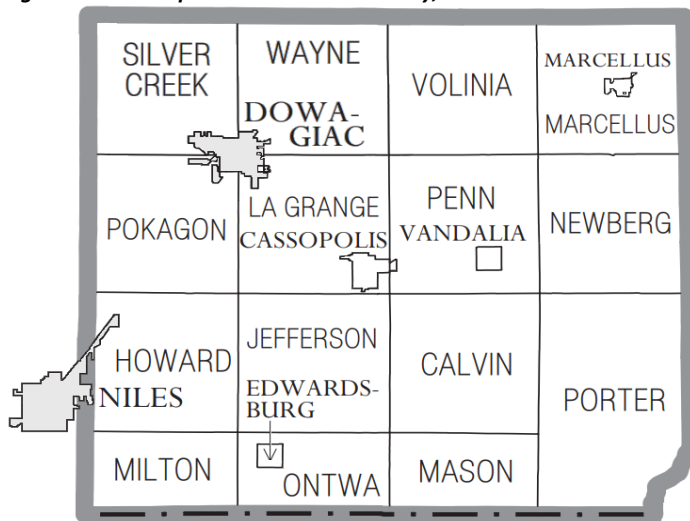
The Edwardsburg Joint Fire Board was formed by an Intergovernmental Agreement between the Townships of Ontwa, Milton, and Jefferson, all located in Cass County. The Edwardsburg Fire Department provides fire protection services to all of Ontwa Township and to about 50% of both Jefferson and Milton Townships.

The 2020 Census population of Jefferson Township was 2,590, the 2020 Census population for Milton Township was 3,128, the 2020 Census population of Ontwa Township was 5,600, which includes the 2020 Census population of the Village of Edwardsburg which was 1,115.

Jefferson Township has an area of 36 square miles of which 1.3 square miles is water. Milton Township has an area of 21.3 square miles of which 0.23 square miles is water. Ontwa Township has an area of 21 square miles of which 1.6 square miles is water. The Village of Edwardsburg is located in Ontwa Township and has an area of 0.90 square miles of which 0.10 square miles is water.

The following figure illustrates the various Townships located in Cass County and the Townships that are served by the Edwardsburg Fire Department.

Figure 1: Townships Located in Cass County, MI





Governance

Interlocal Fire Department Agreement

The latest Interlocal Fire Department Agreement between the Townships of Ontwa, Milton, and Jefferson of Cass County, Michigan was updated and signed on December 8, 2016, with an effective date of April 1, 2017. The agreement was for an initial term of four years and is automatically renewed for successive terms of four years unless a written notice by a Township Board of their intent to withdraw from the agreement with a 120 days' notice prior to the end of the term. In all cases written notice of the intent to withdraw from the agreement shall be given on or before November 30th.

The following are highlights from the Interlocal Fire Department Agreement:

General Purpose:

- The Edwardsburg Fire Department is to provide fire protection and emergency services throughout the described areas:
 - The Township of Ontwa
 - The portion of the Township of Milton as established by the Board of Trustees
 - The portion of the Jefferson Township as established by the Board of Trustees

Management:

- The Fire Department shall be governed, managed, and controlled by a Fire Board consisting of two individuals appointed by each of the three township boards and one member-at-large appointed by the Fire Board who is a resident of one of the member townships.

Board Authority:

- The Fire Board shall have full responsibility for the management and operation of the Fire Department including, without limitation, the hiring of the fire chief, deputy chief and other fire department officers and firemen, the training of all fire personnel in accordance with the requirements of state law, determination of wages for all fire personnel within budget appropriations approved by the respective legislative bodies of each member unit. Responsibilities also include the preparation of an annual budget for approval by the townships.

Property and Fire Station:

- Any facilities or equipment owned by the Fire Board shall be considered owned by each participating member units in common ratio of their respective Taxable Values within the service boundaries at the time of acquisition.

New Facilities or Equipment:

- Any new facilities or equipment acquired by the Fire Board shall be considered owned by the townships as tenants in common in the ratio of their respective Taxable Values within the service boundaries at the time of acquisition with the understanding the Fire Board shall be the party in charge of the operation and use of such facilities and equipment.

Contribution for Operating Expenses:

- The annual approved budget shall be supported by contributions from each of the townships in proportion to their respective Taxable Values unaffected by tax abatement granted particular businesses, farms, or industries. Each townships contribution shall be equal to the value of One (1.000) mill of the most recent year's taxable value of property located within the boundaries established as of the date of the agreement independently by each participating township (subject to any Headlee Rollback), with a minimum contribution being .90 mills.

Financial Statements:

- The Fire Board, through its Treasurer, shall prepare and circulate to the Clerk of each Township a final year-end report.

Annual Audit:

- The financial records and books of the Fire Board shall be audited annually by a certified public accountant. The final audit report shall be circulated by the fire Board to each of the Clerks of the Townships.

Agreement Term:

- The agreement was for an initial term of four years and is automatically renewed for successive terms of four years unless a written notice by a Township Board of their intent to withdraw from the agreement with a 120 days' notice prior to the end of the term. In all cases written notice of the intent to withdraw from the agreement shall be given on or before November 30th.

There is other language in the Interlocal Fire Department Agreement, but the above sections provide the important factors of the agreement. Based on the fact that the Edwardsburg Joint Fire Board was established in 1969 and has a history of over 50 years in operating and managing the Edwardsburg Fire Department, it is obvious that the Interlocal Fire Department Agreement is very effective.



Edwardsburg Joint Fire Board

The original fire department was organized in 1927 to be the Edwardsburg Village Fire Department. The fire department equipment, vehicles and building were all owned by the Village of Edwardsburg. In 1969 ownership of all the equipment, vehicles and the building were signed over to the Edwardsburg Joint Fire Board.

The Edwardsburg Joint Fire Board was formed in 1969 between the Townships of Jefferson, Mason, Milton, Ontwa, and the Village of Edwardsburg. The costs for the Edwardsburg Fire Department were shared between the five entities from each of their General Fund budgets and as the fire department grew the payments for the fire department changed as needed until about 1996. In 1996, the Township of Mason withdrew from the Interlocal Fire Department Agreement.

In 1996, a new formula was initiated to share the costs of the Edwardsburg Fire Department as each Township established a 1.0 millage rate to pay for Fire Protection Services. Ontwa Township established their 1.0 millage rate and included the Village of Edwardsburg residents in the rate. The Village of Edwardsburg does not make direct payments to the Edwardsburg Joint Fire Board since Village residents pay Ontwa Township taxes and are included in the millage rate for the Township.

Jefferson Township established a Special Assessment District (SAD) for Fire Protection and EMS services at a 1.0 rate. Milton Township started out using General Fund, went to a millage and in 2014 a Special Assessment District (SAD) for fire protection.

The Edwardsburg Joint Fire Board has seven members, with two representatives from each municipality and an at large member voted on by the Edwardsburg Joint Fire Board. The Edwardsburg Joint Fire Board is the governing body for the Interlocal Agreement between the Townships. The Chairperson and co-chairperson are elected by the Board. The Edwardsburg Joint Fire Board appoints the Fire Chief and Bookkeeper annually.

Edwardsburg Fire Department

The Edwardsburg Fire Department has become an all-hazards fire department operation. The services provided include fire protection, vehicle extrication, hazardous materials, and emergency response to assist the Edwardsburg Ambulance Service for some EMS emergencies and extraction at traffic accidents.

The Edwardsburg Fire Department operates two fire engines, two tenders/tankers, two brush trucks, a command vehicle, and one utility vehicle. They have on order and delivery is expected in the near future of a used 4-wheel drive Fire Engine, which will bring their front-line apparatus to three fire engines.

Bylaws Joint Fire Board Overview

The following are highlights from the Bylaws of the Edwardsburg Joint Fire Board:

Board Members

- Membership of the Board shall be as set out in the Interlocal Agreement.
- Members of the Board may be removed by appointing governing body.
- Meetings shall meet on a bi-monthly basis and must publish a schedule of such meetings

Officers

- The officers of the Board shall be elected by the Board and shall consist of a Chairperson, Vice-Chairperson, and a Recording Secretary.
- The Chairperson shall be the Chief Executive Officer of the Board and may delegate duties to the Vice-Chairperson.
- The Secretary shall attend all meetings of the Board and record all votes and minutes of all proceedings.

Fiscal Year

- The Fiscal Year of the Fire Department shall begin on the first day of April and end on the last day of March.

Powers of the Board

- The Board shall have the power to perform all functions authorized such Boards by the Michigan Urban Cooperation Act together with such powers as are necessary including the following:
 - Management administration and direction of operations of the Fire Department.
 - Budget preparation and control.
 - Such other duties as determined necessary from time to time by resolution of the Board.

Fire Department

- The Board shall oversee the obligations of the Fire Department and shall cause the Fire Department to develop and adopt its own set of bylaws governing the internal affairs and obligations of the Fire Department.
- The requirements of the Fire Department bylaws required as a minimum are listed.
- The Membership qualifications and eligibility are listed



Staffing

Paid on Call Members

The Edwardsburg Fire Department has a total of twenty-six Paid on Call members. The Paid-on-Call members includes one Fire Chief, two Assistant Fire Chiefs, two Captains, one Lieutenant and the remaining nineteen (19) members are all firefighters.

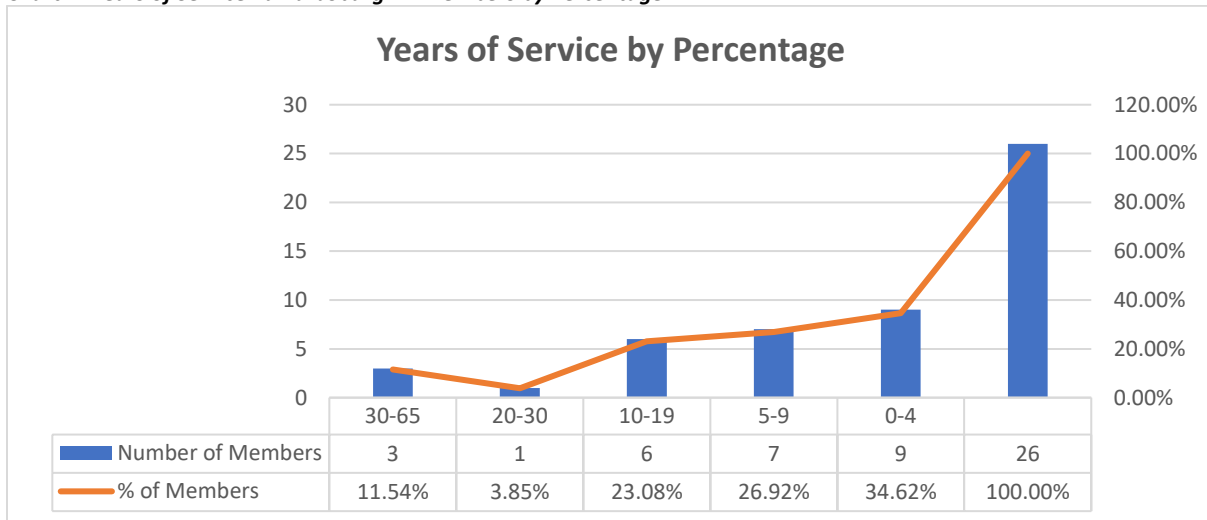
The following table reflects the years of service of all Paid on Call members of which the average length of service on the Edwardsburg Fire Department is 12.17 years.

Table 2: Years of Service of Edwardsburg Fire Department Paid-on-Call FD Members

Rank	Start Date	Service Yrs.
Firefighter	1-May-57	65
Firefighter	13-Jul-81	41
Firefighter	29-Sep-83	38
Chief	12-Aug-02	20
Asst. Chief	11-Aug-03	19
Captain	12-Feb-07	15
Lieutenant	9-Dec-08	14
Asst. Chief	12-Feb-09	13
Firefighter	17-Jan-11	11
Firefighter	1-Mar-12	10
Captain	15-Apr-13	9
Firefighter	27-Apr-14	8
Firefighter	12-Oct-15	7
Firefighter	20-Jun-16	6
Firefighter	3-Oct-16	6
Firefighter	10-Apr-17	5
Firefighter	9-Oct-17	5
Firefighter	22-Apr-19	3
Firefighter	12-Aug-19	3
Firefighter	3-Aug-20	2
Firefighter	25-Mar-21	1
Firefighter	16-Apr-21	1
Firefighter	21-Apr-21	1
Firefighter	7-Feb-22	0.75
Firefighter	14-Jun-22	0.5
Average Yrs. Longevity		12.17

The following chart indicates the years of service by percentage for all 26 members of the Edwardsburg Fire Department.

Chart 2: Years of Service Edwardsburg FD Members by Percentage:



The above chart illustrates that three (3) of the 26 members, or 11.54%, have over 30-plus years of service. An additional seven (7) members have between 10 and 30 years of service and seven (7) members or 26.92% have between 5 and 9 years of service. Nine (9) members or 34.62% of the members have less than 5 years of service. The interesting fact is that 16 of the 26 members or 61.54% of the have less than ten (10) years of service. This does indicate that recruitment has been important to the Edwardsburg Fire Department leadership. It should also be noted that all of the Edwardsburg Fire Department Officers have more than 9.5 years of service.

Paid on Call Salaries

The Chief and the two Assistant Chiefs receive an annual stipend. The annual stipend for the Fire Chief is \$30,000 and for each of the two Assistant Fire Chiefs the annual stipend is \$3,750. The Fire Chief and the two Assistant Fire Chiefs do not receive additional pay for responding to calls. The two Captains and the one Lieutenant as well as the remainder of the paid-on-call members are paid an annual stipend with the use of a point system. Each paid-on-call member receives points for fire calls, training sessions, and work sessions. The Edwardsburg Fire Department points system is funded in the fire department budget with a sum of \$35,000. The \$35,000 is divided up between the department members based on the total number of points earned annually and then by the amount of points each member has earned.

The amount of money earned by each member through the points system is probably minimal based on an annual budget of \$35,000 and the number of fire department members. The consultants have not experienced a paid-on-call fire department using a point system to pay their members for a number of years as most of the paid-on-call fire departments have moved to paying their members on a per call

basis a stipend usually between \$15 and \$20 per hour depending on the skills required. The higher rate is usually for members with EMS training and licenses if the fire department operates an EMS service.

Consideration should be given to paying the paid-on-call members, including the two Assistant Chiefs, for responding to calls instead of using the current points system. If members were paid a rate of \$16.00 per call the table below reflects the annual costs of an average of 300 calls with an average of 7 members per call and an average of 10 members per call. The calculations are also included at a rate of \$17.00 per call and \$18.00 per call.

Table 3: Annual Cost of Paid-on-call Paid per Call

Rate	Average 7 Members	300 Calls Annually	Average 10 Members	300 Calls Annually
\$16.00	\$112.00	\$33,600.00	\$160.00	\$48,000.00
\$17.00	\$119.00	\$35,700.00	\$170.00	\$51,000.00
\$18.00	\$126.00	\$37,800.00	\$180.00	\$54,000.00

The above table includes the cost to pay members per call for emergency responses. In addition, FICA would need to be calculated at the rate of 7.65% per the total annual costs.

The above costs do not include the costs for training, but if training was paid at the rate of 4 hours per month or 48 hours per year average at a rate of \$16.00 the annual costs are shown in the following table:

Table 4: Annual Estimated Costs of Training

Annual Training	# Members	Total Annual Hrs	Rate	Total Costs
48	26	1,248	\$16.00	\$19,968.00
			FICA @ 7.65%	\$1,527.55
				\$21,495.55

Recommendations – Paid-on-Call Salaries

- *The Edwardsburg Fire Department should consider moving away from paying their members by the current point system. **Priority 2***
- *The paid-on-call rate for paid-on-call members should be established by the Edwardsburg Joint Fire Board based on the annual fire department budget funding capabilities. **Priority 2***
- *The recommendation is that the Edwardsburg Joint Fire Board consider paying the paid-on-call members a rate of \$16.00 per call and for training in order to maintain adequate staffing for fire department services. **Priority 2***

Staffing Options

One of the problems the Edwardsburg Fire Department has is the availability of Paid-on-Call members to respond to calls, especially during certain times of the day. Many of the members work full-time and are not available during the daytime hours. In addition, for members that work daytime shift hours they may not be able to get up in the middle of the night to answer emergency calls.

In reviewing the times of calls in this report the calls by the time of day begin increasing about 10 am and calls start decreasing after about 8 pm. This shows the need to have paid-on-call members or some type of staffing available during the daytime hours if at all possible.

Full-time Staffing

The Edwardsburg Fire Department could make an attempt to hire full-time personnel to work 40-hour work weeks Monday through Friday during the daytime hours. The issue would obviously be the costs of hiring at least two full-time personnel. With salaries and benefits the cost to hire two full-time members could easily exceed \$130,000 annually with salary, benefits, insurance, vacations, holidays, overtime, and other costs. Once the Edwardsburg Fire Department started hiring full-time employees the current Paid-on-Call members may not be as willing to remain as members of the department.

Part-Time Staffing Daytime Hours

Another possible option for daytime staffing would be to hire current Paid-on-Call members to work part-time during the daytime hours Monday to Friday. If two personnel were staffed for 8 hours per day that would equal 80 hours of coverage per week or 4,160 hours annually. If two part-time personnel were paid a salary of \$16.00 per hour the weekly costs would be \$1,280 and the annual cost would be about \$66,560.00. In addition, there would be additional costs for FICA of approximately \$5,091.84. The total estimated costs for two part-time daytime staff would be an estimated \$71,651.84 annually.

The following table reflects the estimated cost for two part-time members to staff during the daytime hours Monday through Friday for 8 hours per day or 40 hours per week. The table reflects the costs at a salary of \$16.00 per hour as well as a salary of \$17.00 per hour. In addition, with the estimated costs for FICA the annual cost at the rate of \$16 per hour would be just less than \$72,000 and at the rate of \$17 per hour the estimated cost would be just under \$77,000.

Table 5: Part-Time Daytime Staffing Costs 40 hours Per Week

Part-Time Hours	PT Salary	Annual Costs	FICA at 7.65%	Total Costs
2 PT Staff 40hrs/week	\$16.00	\$66,560.00	\$5,091.84	\$71,651.84
2 PT Staff 40hrs/week	\$17.00	\$70,720.00	\$5,410.08	\$76,130.08

During the interviews with fire department members a number of them expressed a willingness to work part-time hours in the station during the daytime hours if the opportunity was available. It certainly

would be best if current Paid-on-Call members were used to work the part-time hours, but if necessary part-time personnel would probably be available from neighboring fire departments.

Staffing with Duty Crews

Another option to help with staffing for emergency calls during the evening hours and on weekends would be to implement a duty crew program. The idea would be to pay two members a stipend to be on call as a duty crew from about 6 pm to 6 am Monday through Thursday evenings. This would guarantee at least two members available to respond to emergency calls during those hours. The hours may need to be adjusted depending on what would work best for the membership. Being on a duty crew until 6 am may be difficult for some as they may start their full-time employment by that time so the ending time could be adjusted to ending at 5 am.

The standby option for the weekend would be to have two personnel on a duty crew for the entire weekend with hours being adjusted as needed, but it is common to use the standby hours from Friday at 6 pm to Monday 6 am. Again, it would guarantee at least two personnel available the entire time to respond to emergency calls.

The program would be to pay the duty crews stipends for their standby time. A nominal stipend for a duty crew member during the week would be \$25.00 per each member per night and in addition they would receive the Paid-on-Call salary rate for any calls they responded to while on standby. A weekend stipend rate would usually be about \$100 per member with them also receiving the Paid-on-Call salary rate for any calls they responded to while on standby. The stipend in both cases is to pay them for being on a duty crew. The program could require duty crews being assigned or duty crews being voluntary. Members could sign up for the duty crews or be assigned on a rotating basis, but once assigned a duty crew date they would be responsible for finding someone to take their duty crew assignment if they were not available.

The estimated cost for the duty crews for Monday through Friday and for weekends on an annual basis are shown in the following table:

Table 6: Annual Duty Crew Estimated Costs

Duty Crew Hours	Stipend	Weekly Costs	Annual Costs	FICA @ 7.65%	Total Costs
2 POC – 4 Nights During Week	\$25.00 each	\$200.00	\$10,400	\$795.60	\$11,195.60
2 POC – During Weekend	\$100.00 each	\$200.00	\$10,400	\$795.60	\$11,195.60
				Total Annual Costs	\$22,391.20

For the estimated costs of less than \$23,000 the Edwardsburg Fire Department could implement an on-duty crew standby program using two members for each duty crew. The duty crews would be used Monday through Thursday evenings and a different duty crew would be used for the weekend time

frame from Friday evening to Monday morning. The hours of the duty crews could be determined by the Edwardsburg Fire Department and the members to make sure it fits the needs of as many members as possible.

Recommendations – Staffing Options

- *The Edwardsburg Fire Department should not move towards hiring full-time daytime hour employees at this time primarily due to the costs associated with salaries and benefits. **Priority 1***
- *The Edwardsburg Fire Department should implement a duty crew staffing program to provide on-duty crew of at least two members to be available to respond to calls during the evening hours during the week and a separate duty crew for weekend standby. The duty crew members would be paid a stipend for standby as well as the POC salary rate for any calls they responded to as soon as it is fiscally possible. **Priority 2***
- *The Edwardsburg Fire Department should implement a part-time staffing program to provide on-duty part-time personnel in the station Monday through Friday for at least 40 hours per week as soon as it is fiscally possible. **Priority 2***

Recruitment – Paid on Call Members

The issue that the Edwardsburg Fire Department has with recruiting and retaining Paid on Call members is a problem throughout the Fire Service and EMS Service and is a result of many issues.

Many younger members of the community work outside the Edwardsburg Fire Department response area and are not always available to respond to calls. The amount of training required to become a firefighter for the Edwardsburg Fire Department is significant. Many potential members may have young children or spouses that are employed resulting in not having much free time available to become a member of the fire department. The other reality is that the pay for Paid-on-call members does not produce much income and if someone wanted part-time job, they certainly could find part-time employment that may pay \$20.00 per hour or a similar amount.

The Edwardsburg Fire Department recruitment has resulted in seven new members in the last five years, but additional efforts should be made to recruit new members. The Edwardsburg Fire Department does have a presence on social media and the presence may need to be expanded. Every effort should be made by the Edwardsburg Fire Department to share department news with the members of the community and especially with potential members. The more the story of the Edwardsburg Fire Department can be shared the possibility of new members being recruited will be much better.

Recommendations - Paid on Call Members and Recruitment

- *The Edwardsburg Fire Department should establish minimum acceptable annual attendance for department training, response activities, and other department expectations for all Paid- on-Call members. **Priority 1***
- *The Edwardsburg Fire Department should develop an ongoing recruitment program to provide enough Paid-on-Call members to meet the needs of the community. **Priority 2***
- *Current members should be encouraged to participate in developing new ideas and plans for actively recruiting new Paid on Call members. **Priority 2***
- *The Edwardsburg Fire Department should continue with their social media presence by enlisting the help of current members with experience to share the story and events of the fire department, but more importantly to use as a method of recruitment for new members. **Priority 2***



Fire Department Operations

The Edwardsburg Fire Department does provide a variety of fire protection and assistance with EMS services to the citizens of the various Townships served. The Edwardsburg Fire Department currently operates two fire engines, and an additional used 4-wheel drive fire engine is going to be delivered in the very near future. The department also has two tanker/tenders for carrying water. The tanker is required in areas within the Townships that do not have fire hydrants. Without fire hydrants the water in the tankers is used to supply water to the fire engines to be pumped through firehose lines to fight fires. If more water is needed than is available in the on-scene tankers than water can be truckled in by tankers from other fire departments in the area. This is often referred to as a water tanker shuttle.

As mentioned earlier in this report Edwardsburg Fire Department has an area of 48 square miles. There are about 2.5 square miles in Ontwa Township and the Village of Edwardsburg that are protected with fire hydrants and the remaining 45.5 square miles is known as a non-hydrant area. The non-hydrant area is where the water tankers are required to supply water for firefighting purposes.

The Edwardsburg Fire Department responds to fire and other emergencies initially by Paid on Call members who respond from their homes to either the station or to the scene. In addition, automatic aid and MABAS resources are available from neighboring fire departments.

EMS Operations

The Edwardsburg Fire Department does not provide Emergency Medical Services (EMS). The Edwardsburg Fire Department does respond with the Edwardsburg Ambulance Service to emergency calls involving extrication at accidents, lift assists, and for cardiac emergencies. The Edwardsburg Fire Department is not licensed by the State of Michigan to provide actual Emergency Medical Services to the community. For calls involving extrication they can assist Edwardsburg Ambulance Service with the fire department extrication equipment which they are trained on and qualified to use. For calls involving lift assists and for cardiac emergencies the Edwardsburg Fire Department members are used additional to lift and move patients and/or ambulance equipment during the emergency calls.

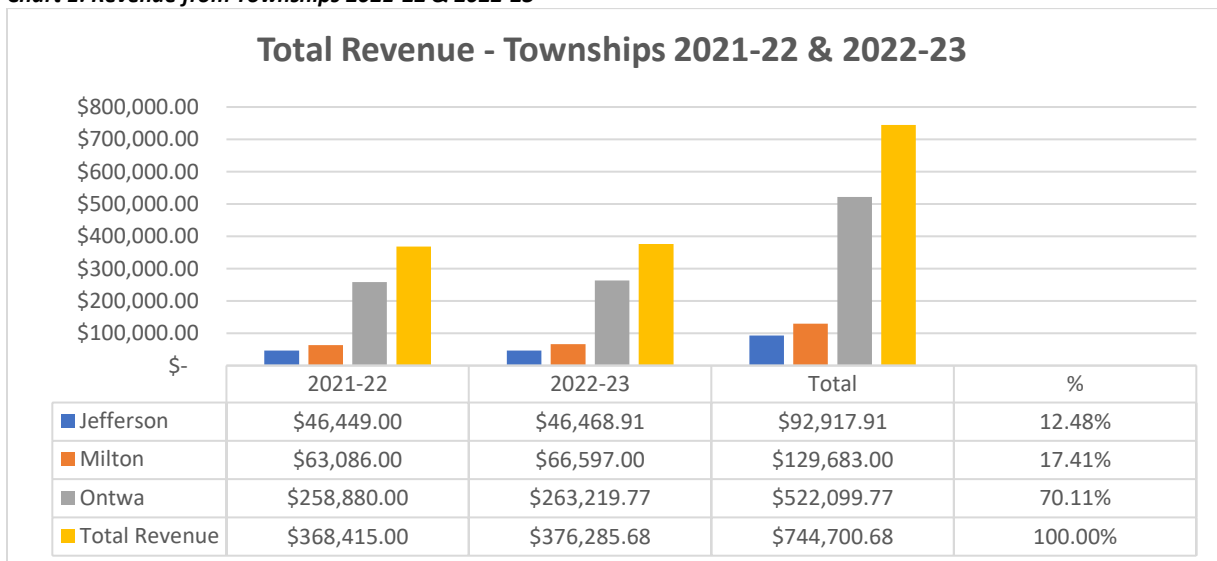


Fiscal

As mentioned earlier the Township of Ontwa has a .01 millage for fire protection and both Jefferson Township and Milton Township raise funds for fire protection through a Special Assessment District (SAD) with a 1.0 rate.

The following chart reflects the revenue funds from the three Townships used to fund the Edwardsburg Fire Department for the years 2021-22 and 2022-23:

Chart 1: Revenue from Townships 2021-22 & 2022-23



As the above chart indicates, for the budget year 2021-22 the revenue was \$368,415 total and for the budget year 2022-23 the total revenue was \$376,285.68. The revenue increased by less than \$12,000 between the two annual budgets. The total revenue for the two annual budgets was \$744,700.68 and as the chart reflects the Township of Jefferson funded about 12.48% of the revenue, the Township of Milton funded 17.41% of the revenue, and the Township of Ontwa funded \$522,099.77 of the revenue.

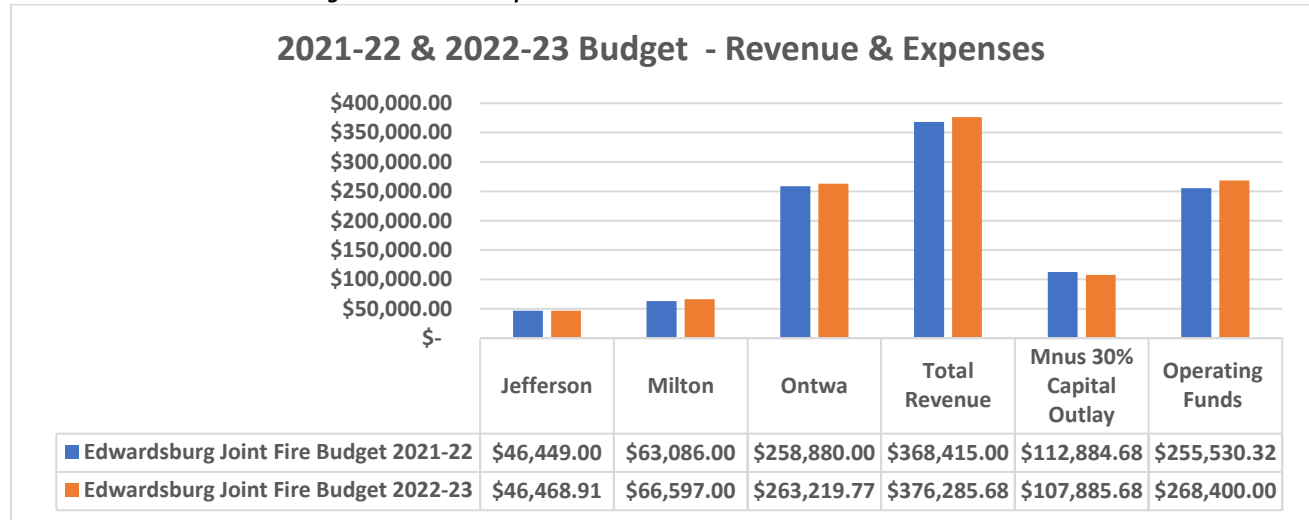
Edwardsburg Fire Department Budget

The current Edwardsburg Fire Department has an annual budget with a calendar year of April 1st to March 31st of each year, which aligns with the fiscal year as required by the Interlocal Fire Department

Agreement. The Fire Department does have an annual operating budget that funds the Paid-on-Call members, benefits, and all other operating costs.

The following chart reflects the 2021-22 & 2022-23 Budget revenue with the expenses for Capital and Operating expenses:

Chart 2: 2021-22 & 2022-23 Budget - Revenue & Expenses



As the above chart reflects the budget with the revenue from the three Townships, then 30% is designated for Capital Outlay on an annual basis, and the balance of the revenue is designated for operating funds for each budget year. All of the capital outlay funds may not be spent each year and any balance is carried over in a capital outlay account. The same with the annual operating expenses any funds not used in a budget year are carried over in a fund balance. The funds designated for Capital Outlay for the two annual budgets was between almost \$108,000 and \$113,000, but when a new fire engine costs \$500,000 plus or a new tender/tanker costs \$400,000 plus designating \$113,000 annually towards Capital Outlay is required as a minimum.

The following table reflects the Edwardsburg Fire Department annual budget for the years 2021-22 & 2022-23. The budget reflects the total operating expenses and in addition the Capital Outlay Fund balance is added to determine the annual budget. Again, any Capital or Operating Expense Funds remaining at the end of the budget year are carried over to the next budget.

Table 7: Edwardsburg FD Budget 2021-22 & 2022-23

Operating Expenses	2021-22	2022-23
DESCRIPTION	Budget	Final Budget
	Amount	Expenses
Equipment Maint.	\$25,000.00	\$25,000.00
Fueal	\$5,000.00	\$5,000.00
Insurance	\$25,000.00	\$26,000.00
Office Supplies	\$5,000.00	\$7,000.00
Operating Cost/Supplies	\$27,000.00	\$27,065.00
Internet/Telephone	\$2,000.00	\$2,600.00
Electric	\$7,100.00	\$8,000.00
Natural Gas	\$7,200.00	\$8,000.00
Water	\$1,000.00	\$1,200.00
Sewer	\$315.00	\$450.00
Elkhart Hydrant Rental	\$385.00	\$385.00
Payroll Tax	\$5,000.00	\$7,000.00
Training	\$5,000.00	\$5,000.00
Professioanl Service Audit	\$6,000.00	\$6,200.00
Fire Chief	\$25,000.00	\$30,000.00
1st Asst Chief	\$3,750.00	\$3,750.00
2nd Asst. Chief	\$3,750.00	\$3,750.00
Bookkeeper	\$9,000.00	\$9,000.00
Firefighter Points	\$30,000.00	\$35,000.00
Station Maintenance	\$30,000.00	\$15,000.00
Firefighter Supplies	\$15,000.00	\$28,000.00
New Equipment	\$15,000.00	\$15,000.00
Total Operating Expenses	\$252,500.00	\$268,400.00
Capital Outlay	\$405,023.37	\$470,297.26
Total Budget	\$657,523.37	\$738,697.26

A couple of items should be noted the first is the amount of revenue generated each year by the three Townships is limited and the annual increase is also very limited. This is basically because the funds generated for revenue come from either a millage or a Special Assessment District. The other important fact is that the operating budget is very conservative, and the consultants did not identify any spending on the operating expenses that is out of line. The reality is that the price of most products and services have increased substantially in the last two years.

In many cases a municipality can borrow funds for capital expenses from the State. In Michigan, the Local Government Loan Program provides competitive interest rates for 3 to 30-year loans. More

information can be found at the website for the Michigan Finance Authority:

<https://www.michigan.gov/treasury/finance/mfa>

It may also be possible to obtain a fire department loan from a local community bank that are usually interested in assisting local municipalities and the Edwardsburg Fire Department and the Edwardsburg Joint Fire Board members would certainly have relationships with local community banks.

The following table reflects the end of the year balance sheet for the Edwardsburg Fire Department annual budget for the years 2019-20, 2020-21, 2021-22, and the 2022-23 budget as of September 30, 2022.

Table 8: End of Budget Year Balance Sheet 2019-20 to 2022-23 through 9-30-22

DESCRIPTION	2019-20	2019-20	2020-21	2020-21	2021-22	2021-22	2022-23
	Budget Amount	Final Budget Expenses	Budget Amount	Final Budget Expenses	Budget Amount	Final Budget Expenses	Budget Amount
Equipment Maint.	\$26,000.00	\$25,590.03	\$28,000.00	\$25,661.32	\$25,000.00	\$23,021.78	\$25,000.00
Gas/Oil	\$5,000.00	\$2,872.37	\$5,000.00	\$2,930.67	\$5,000.00	\$3,685.24	\$5,000.00
Insurance	\$25,850.00	\$25,400.60	\$23,000.00	\$22,406.00	\$25,000.00	\$23,285.17	\$26,000.00
Office Supplies	\$5,000.00	\$2,107.71	\$5,000.00	\$25,141.47	\$5,000.00	\$474.41	\$7,000.00
Operating Cost/Supplies	\$24,000.00	\$22,134.31	\$27,000.00	\$1,856.34	\$27,000.00	\$22,449.20	\$27,065.00
Telephone	\$1,800.00	\$1,799.22	\$1,900.00	\$1,838.56	\$2,000.00	\$1,072.37	\$2,600.00
Utilities	\$13,000.00	\$11,964.52	\$13,000.00	\$12,204.58	\$16,000.00	\$15,627.34	\$18,035.00
Firefighter Supplies	\$8,000.00	\$5,294.43	\$34,452.95	\$30,245.36	\$15,000.00	\$708.76	\$28,000.00
New Equipment	\$46,000.00	\$41,687.02	\$25,000.00	\$14,576.90	\$15,000.00	\$5,632.18	\$15,000.00
Capital Improvements	\$300,339.81	\$11,231.44	\$289,108.37	\$0.00	\$405,023.37	\$45,488.51	\$534,151.94
Training	\$5,000.00	\$3,864.02	\$5,800.00	\$857.58	\$5,000.00	\$2,788.21	\$5,000.00
Professional Services	\$5,150.00	\$5,150.00	\$6,000.00	\$5,150.00	\$6,000.00	\$5,750.00	\$6,200.00
Salary							
Fire Chief	\$22,000.00	\$19,560.04	\$24,000.00	\$21,360.00	\$25,000.00	\$22,260.04	\$30,000.00
1st Asst Chief	\$3,750.00	\$3,750.00	\$3,750.00	\$3,750.00	\$3,750.00	\$3,750.00	\$3,750.00
2nd Asst. Chief	\$3,750.00	\$1,875.00	\$3,750.00	\$3,750.00	\$3,750.00	\$3,750.00	\$3,750.00
Bookkeeper	\$9,000.00	\$9,000.00	\$9,000.00	\$9,000.00	\$9,000.00	\$9,000.00	\$9,000.00
Salary Grand Total	\$38,500.00	\$34,185.04	\$40,500.00	\$37,860.00	\$41,500.00	\$38,760.04	\$48,500.00
Payroll Taxes	\$5,000.00	\$4,122.17	\$5,000.00	\$4,474.50	\$5,000.00	\$4,652.10	\$7,000.00
Station Repair	\$4,000.00	\$1,844.23	\$120,982.00	\$118,767.65	\$30,000.00	\$7,835.00	\$15,000.00
Firefighters Pay	\$30,000.00	\$29,974.56	\$30,000.00	\$29,999.64	\$30,000.00	\$29,951.72	\$35,000.00
Totals	\$542,639.81	\$229,221.67	\$659,743.32	\$333,970.57	\$657,523.37	\$231,182.03	\$802,551.94
Expenses	\$229,221.67		\$333,970.57		\$231,182.03		
Remaining Fund Balances	\$313,418.14		\$325,772.75		\$426,341.34		

The above table illustrates the fund balance at the end of each budget year after all expenses for the year have been paid. Each budget year the fund balance ranges from \$313,418.14 in the 2019-20 budget year to \$426,341.34 in the 2021-22 budget year.

Capital Outlay Needs

The purpose of this study was the focus on staffing, but in discussion with the Fire Chief future capital outlay needs for the Edwardsburg Fire Department includes replacing two tanker/tenders, which costs would probably be at least \$400,000 each depending on when they were purchased. The other major Capital Outlay expenditure would be the costs of providing sleeping and living quarters in the fire station in order to staff the fire department with part-time or full-time staff in the future. For the purpose of having a number for planning a figure of \$100,000 to complete building renovations required to provide sleeping and living quarters. The building renovations could be completed in one year with the Capital Outlay fund balance if the estimate for the renovation is somewhat accurate.

Any increases in budget costs will need to be offset by any current spending and/or additional revenue will need to be generated. Another method of offsetting some budget would be to consider using short terms loans to finance capital outlay expenditures instead of using large sums of fund balances to pay for a purchase outright. An example is if the plan is two replace two tanker/tenders in the next 10 years then perhaps order one every five years. The concept would be to borrow \$400,000 to purchase the vehicle and with a 5-year short term loan from a local community bank the repayment would most like be less than \$100,000 annually. This would free up some budget funding to pay for part-time day time staffing, duty crews, and to pay members a per call rate. A five-year loan for \$400,000 with a 4.5% interest rate would require 60 monthly payments of \$7,457.21 or about \$89,486.52 annually. The following table is the Amortization Schedule for a \$400,000 5-year loan at 4.5% Interest rate.

Table 9:5 Yr. Loan Amortization Schedule

5 Yr Loan \$400,000 @ 4.5% Interest Amortization Schedule				
Year	Beginning Balance	Interest	Principal	Ending Balance
1	\$400,000.00	\$16,507.01	\$72,979.51	\$327,020.51
2	\$327,020.51	\$13,154.35	\$76,332.17	\$250,688.36
3	\$250,688.36	\$9,647.64	\$79,838.88	\$170,849.52
4	\$170,849.52	\$5,979.88	\$83,506.64	\$87,342.90
5	\$87,342.90	\$2,143.61	\$87,342.91	\$0.00

Future Operational and Capital Budget Needs

The recommended staffing changes included in this report include the following:

- Eliminating the point system for paying the paid-on-call members and going to a rate of pay for responding to calls and training events.
- Implementing the use of evening duty crews Monday through Thursday evening and a weekend duty crew from Friday pm to Monday am.
- Implementing the use of Part-time staffing with two personnel daytime Monday through Friday for 8 hours each.

The following table reflects the estimated costs for implementing these recommended changes:

Table 10: Costs of Members Pay and Staffing Options

Members Pay & Staffing Options	Costs
Paid on Call Pay at Rate of \$16.00	\$51,672.00
Training at Rate of \$16.00	\$21,495.55
Duty Crews - PM & Weekend Shifts	\$22,391.20
PT Day 2 Personnel 40hrs Week	\$71,651.84
Total Estimated Costs	\$167,210.59
Minus the current Point System Costs	\$35,000.00
Final Estimated Costs	\$132,210.59

Obviously, the consultants are recommending that all of the above members pay, and staffing options be implemented, but the Edwardsburg Joint Fire Board and the Edwardsburg Fire Department should determine the priority of the above options and then based on available funds determine what can be implemented and the timing. All of the options could be implemented at once or they could be implemented in stages depending on the approval of the Edwardsburg Joint Fire Board.

Without additional revenue support from the taxpayers in the form of approving either an increase in the Fire Department Millage or a Special Assessment District it is very obvious the Edwardsburg Joint Fire Board will have major problems funding the Edwardsburg Fire Department. Lack of adequate funding will not only limit the ability of the Edwardsburg Fire Department to response to the growing emergency response calls, but even more importantly the purchase of Capital Equipment and Improvements will be restricted by lack of funding.

Recommendations – Future Possible Funding Sources

- The consultants believe the adoption of an increase in mileage and the Special Assessment Districts for additional funding would be the best long-term funding solution for the Edwardsburg Fire Department. The Edwardsburg Joint Fire Board will need to determine if the Board supports this concept in order to properly staff the Edwardsburg Fire Department.*
Priority 2
- The Edwardsburg Joint Fire Board should consider using short term loans of 5 to 7 years to fund future capital outlays purchases, especially those that include fire department vehicles or other high cost items.*
Priority 3
- The Edwardsburg Joint Fire Board and the Edwardsburg Fire Department managers should determine which proposed staffing options are of the higher priority for implementation and possible funding.*
Priority 1

- *The consultants believe that with the current annual Edwardsburg Fire Department budget the recommendation to implement a paid-on-call pay rate system is achievable with some budget priorities being rearranged. **Priority 2***

Possible Partnership with Edwardsburg Ambulance Service

During interviews with some of the Edwardsburg Joint Fire Board members as well as some Officers of the Edwardsburg Fire Department the idea of some type of joint partnership with the Edwardsburg Ambulance Service was mentioned to the consultants. The Edwardsburg Ambulance Service is the local ambulance service that provides EMS transport services for the Village of Edwardsburg as well as Ontwa Township. In addition, the Edwardsburg Ambulance Service does have mutual aid EMS service with other nearby areas and does provide interfacility transports between medical facilities. The Edwardsburg Ambulance Service is under the direction of the Edwardsburg Ambulance Authority and is funded by a 1.0 millage rate by the authority of Ontwa Township.

One member of the Edwardsburg Joint Fire Board interviewed by the consultants is also a member of the Edwardsburg Ambulance Authority Board, and from her perspective the idea of any merger or partnership would create a number of issues and the primary one is funding. The Board member stated the Edwardsburg Ambulance Authority was already having problems funding the Edwardsburg Ambulance Service with the millage they currently have in place.

A number of Edwardsburg Fire Department members stated they thought a merger would provide more funding for the fire department and members could be cross trained to provide both fire and EMS services. The idea may have some merit but would require a lot of discussion and evaluation regarding the pros and cons of the concept.

The consultants did reach out to the Edwardsburg Ambulance Service Administrator to see if any type of partnership with the Edwardsburg Fire Department could be feasible, and he stated the idea would need to be brought forward to the Edwardsburg Ambulance Authority for discussion.

Recommendations – Ambulance Partnership

- *If the Edwardsburg Joint Fire Board had an interest in further discussing the possibility of any type of partnership with the Edwardsburg Ambulance Service, then it is recommended they make contact with the Edwardsburg Ambulance Authority Board to discuss the idea. **Priority 3***
- *The consultants believe that a potential partnership with the Edwardsburg Ambulance Service may have some merit and there will be major issues that will need to be addressed by both Boards. The question that needs to be answered is will a partnership between the two organizations solve the current staffing problems and will the solution be cost-effective? **Priority 5***



Emergency Activities

This section highlights the emergency response data for the Edwardsburg Fire Department for the period of 2019 – 2021. The prime function of a fire department is to respond to and mitigate emergencies that arise within their jurisdiction. Although this activity only takes up a small percentage of the department’s overall time, its state of readiness must always be at maximum levels in order to optimally provide an efficient and safe level of service. Relevant, detailed, and concise data pertaining to the fire/EMS department is essential in providing archival documentation of the department’s preparedness for, and response to, emergency situations. As in any report of this nature, the recommendations are based on data provided by the client, interviews, and on-site observations.

Why Retrieve Emergency Response Data?

One of the main challenges Fire/EMS leadership faces is to identify the need for resources that will ensure the highest level of emergency service and safety for those who receive and provide such service, as well as to justify the fiscal dollars needed for their resource requests. Good data is essential in accomplishing this mission. Fire department leadership must utilize data in its daily management including, but not limited to:

- *Fiscal management*
- *Staffing*
- *Resource deployment*
- *Budgeting*
- *Purchasing*
- *Strategic planning*
- *Program development/implementation*
- *Program oversight/assessment*
- *Assuring competency*
- *Assuring cost-effective/efficient services*
- *Communication with governing board(s)*

Leadership can quantify the above objectives through good data.

Fire Service Data Crossroad

The Fire/EMS profession continues to struggle with the understanding and utilization of data. The National Fire Protection Association (NFPA) conducted a national survey pertaining to data from which two themes emerged:

1. *Data, as it is currently being collected, is problematic and is not used to its full potential.*

2. Data has significant untapped value and potential for the Fire Service to improve service delivery, resource planning, and increasing community safety.

The survey asked Fire/EMS leaders to describe data in one word and is illustrated in the figure below:

Figure 2: Data Description:



Source: NFPA Research – National Fire Data Survey

Although almost every fire/EMS department retains data about the services they provide, many treat their databases as junk drawers of information and are unwilling or unable to excavate and interpret the data for their benefit. When department leadership has difficulty presenting meaningful data, it is safe to assume that the use of data plays a minimal part in the daily management of those organizations. For example, if a department responded to 2,500 incidents a year and those incidents are divided into categories of: by month, day of the week, time of day, station, shift, etc., the totals should all be 2,500. When they are not, one must question the validity and quality of all their data.

Good Data Definition

The International Association of Fire Chiefs (IAFC) defines good data as data that meets three (3) components:

Good Data is Relevant – you are collecting information on the things that matter like response times and number of calls for service.

Good Data is Accurate – your processes for data collection must be consistent and trustworthy.

Good Data is Reliable – a measurement from one company is equivalent to the same measurement from another company. You do not have to “adjust your data to accommodate known distortions.”

Source: International Association of Fire Chiefs: *Weathering the Economic Storm*,

Fortunately, the data submitted to the consultants was complete and mostly accurate. The consultants spent time with the Fire Chief to achieve the most accurate data, since accurate data is the foundation for the study. The department had to retrieve data from two different record management systems as they recently changed to a newer software program.

Data Quality Control

Data fire/EMS departments should prepare for increasing data integration into everyday activities. Leaders must gain greater data acuity for responsible decision-making. Fire Chiefs must ensure that they allocate financial resources for personnel and technological capability for data capture, management, protection, governance, analysis, and intelligence translation. Firefighters must become increasingly data literate, to understand the value of accurate data entry and report writing. Every fire department would benefit by implementing a data quality control program.

Recommendation – Data Quality Control

- *Edwardsburg Fire Department should continue utilize and manage a data quality control program to ensure the data retrieved serves a purpose in the management of the department.*

Priority 2

Because the importance of using data no longer is a question, the major challenge that departments face is how to process more data faster—for preparedness, prevention, operational insights, and firefighter safety and well-being.

Edwardsburg Fire Department Data

The data provided to the consultants was very good and appears to be very consistent from year to year. It should be mentioned that the Edwardsburg Fire Department currently uses Emergency Reporting for their records management system. Previously, the department used the program called Firehouse for records management. The Edwardsburg Fire Department had to gather data from both software programs to provide the consultants with the required information. Overall, the Edwardsburg Fire Department appears to collect a considerable amount of data and it appears that data is utilized in the daily management of the department.

National Fire Incident Reporting System (NFIRS)

The fire department participates in the National Fire Incident Reporting System (NFIRS) Fire/EMS program in reporting all incidents through **Michigan Bureau of Fire Services**.



Michigan Public Act 207 of 1941, Section 29.1C (2c), the Bureau of Fire Services (BFS) serves as the program manager for the United States Fire Administration (USFA) and must participate in the National Fire Incident Reporting System (NFIRS). The national reporting system has been designed as a tool for fire departments to report and maintain computerized records of fires and other fire department incidents in a

uniformed manner. Section 29.4 and 29.5g of Public Act 207 of 194 requires the Fire Chief of each organized fire department, or the clerk of each city, village, or township that does not have an organized fire department, immediately after the occurrence of fire within the official's jurisdiction resulting in loss of life or property, **shall make and file** with the bureau a complete fire incident report of the fire. The report shall be made on and according to forms supplied by the bureau (BFS) and submitted by the 15th of each month.

In Michigan, one of the eligibility requirements for receiving federal grant money and/or fire investigation training through the Michigan State Police is that fire departments participate in and are compliant with the NFIRS program.

NFIRS Categories

NFIRS categorizes incident types into nine categories with each category having a series number with multiple sub-categories under each main series number. The USFA collects and analyzes NFIRS data from participating states to provide a legal record of fact, to assist fire department administrators in evaluating their fire and EMS effectiveness, and to collect data for use at the State and National levels.

The following table reflects the 2019– 2021 emergency activities for the Edwardsburg Fire Department utilizing the NFIRS series categories:

Table 11: Nature of Calls for the Edwardsburg Fire Department 2019 - 2021

NFIRS Series	Nature of Call	2019	2020	2021	Total	Percent	National %
100	Fires	33	41	36	110	12.50%	4.70%
200	Overpressure/Explosion	0	0	0	0	0.00%	0.20%
300	Rescue/EMS	68	73	84	225	29.17%	64.10%
400	Hazardous Conditions	34	36	49	119	17.01%	3.70%
500	Service Calls	19	14	25	58	8.68%	7.00%
600	Good Intent Calls	57	75	62	194	21.53%	1.00%
700	False Alarm/False Calls	19	12	28	59	9.72%	10.50%
800	Severe Weather	0	0	0	0	0.00%	8.70%
900	Special Incident	1	0	4	5	1.39%	0.70%
	Total Calls	231	251	288	770	100.00%	100.60%

NFIRS Sub-Categories

The following sub-categories are worth noting for the Edwardsburg Fire Department data:

Series 100 – Fire

This category includes all incidents which include any type of fire. The sub-categories are:

- *Structure fire*
- *Fire in mobile property used as a fixed structure*
- *Mobile property (vehicle) fire*
- *Natural vegetation fire*
- *Outside rubbish fire*
- *Special outside fire*
- *Cultivated vegetation, crop fire*
- *Fire, other*

The national average is 4.70% whereas the Edwardsburg Fire Department is at 12.5% which indicates the Edwardsburg Fire Department exceeds the national average in fires.

Series 300 – Rescue/Emergency Medical Services

This category includes any type of rescue or EMS related emergency response. The sub-categories are:

- *Medical assist*
- *Emergency medical service incident*
- *Lock-in*
- *Search for lost person*
- *Extrication, rescue*
- *Water and ice-related rescue*
- *Electrical rescue*
- *Rescue or EMS standby*
- *Rescue, emergency medical service (EMS) incident, other*

The national average is 64.10% whereas the Edwardsburg Fire Department is at 29.17% which indicates the Edwardsburg Fire Department is below the national average for Rescue/EMS Calls. This is due to the fact the Edwardsburg Fire Department does not provide EMS services.

Series 700 – False Alarms/Calls

This category includes any type of reported emergency which ultimately was determined to be a false call.

The sub-categories are:

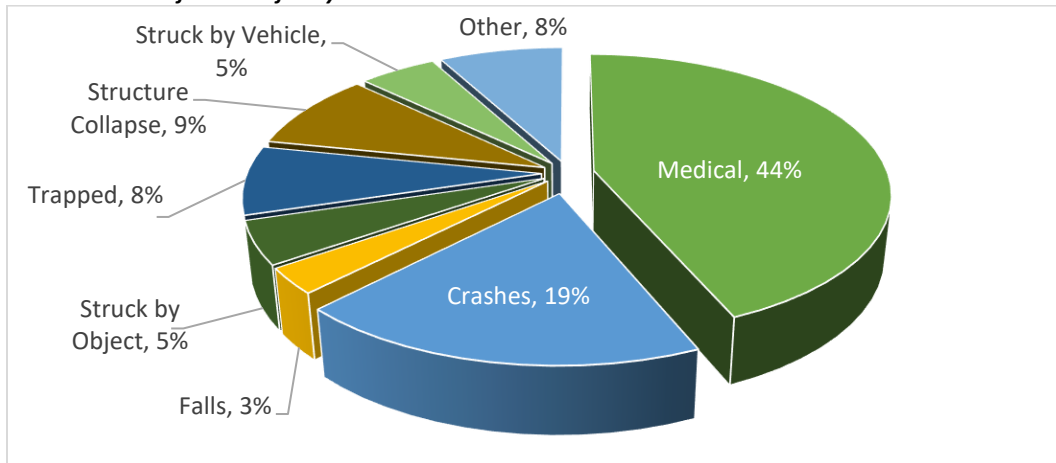
- *Malicious, mischievous false alarm*
- *Bomb scare*
- *System or detector malfunction*
- *Unintentional system or detector operation (no fire)*

- *Biohazard scares*
- *False alarm and false call, other*

The national average is 10.50% whereas the Edwardsburg Fire Department is at 9.72% which indicates the Edwardsburg Fire Department is less than the national average in false alarms/calls.

Why is the above important? False alarms are a drain on a department’s resources, prevent personnel from responding to actual emergencies, and increase the chances for vehicle accidents. Not only does the resolution of false alarms reduce unnecessary emergency responses, it also is a significant safety factor for the community as well as the service providers overall. Vehicle accidents (responding to or returning from) are the second leading cause of firefighter/EMT line-of-duty deaths as illustrated in the chart below:

Chart 3: Causes of FF Line of Duty Deaths



Source: NFPA Firefighter Deaths by Cause of Injury

Recommendation – False Alarms

- *Reduction of false fire alarms can be reduced by regular maintenance, public education, fire inspections, immediate follow-up on all false alarms by the FD. The department should implement these steps as necessary. **Priority 3***

Incidents by Nature

When determining the department’s efficiency and/or addressing future resource needs, it is prudent to examine the historical occurrences of emergencies. The following factors are of significant importance to the Township when examining call data:

- Calls by month
- Calls by day of the week
- Calls by time of day
- Calls distribution by Station/District
- Distribution by shift

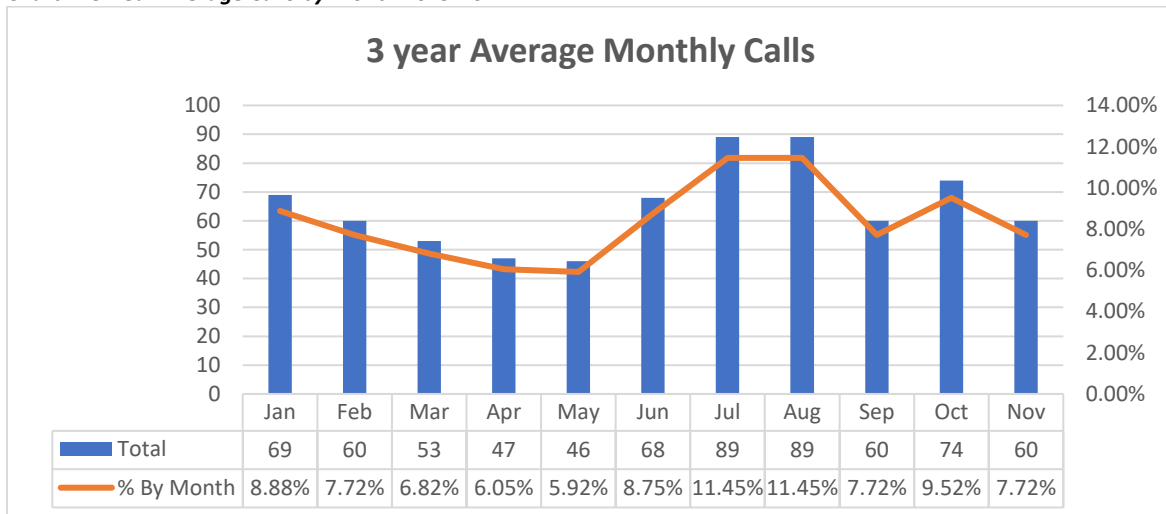
- Overlap/Simultaneous incidents
- Mutual aid/Automatic aid
- Mutual aid box alarm system

Incidents by Month

Fire department leadership should be particularly interested in data which indicates when the department is at its busiest for month, day of the week, and time of day. When a significant pattern is discovered, it indicates the probability that emergency incidents will occur at a certain time and allows the department to anticipate staffing levels (peak staffing) and make contingency plans for adequate personnel or other resources needed for emergency response.

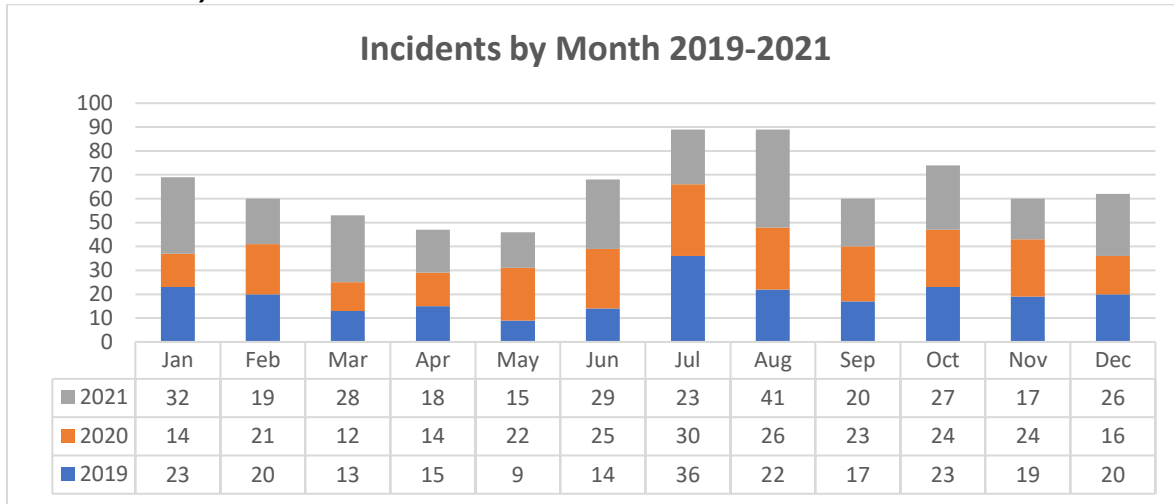
The charts below illustrate the three years of data for incidents by month.

Chart 4: 3-Year Average Calls by Month 2019-2021



What the above chart does illustrate is the vast variance in calls by month for each year, which is illustrated in the chart below:

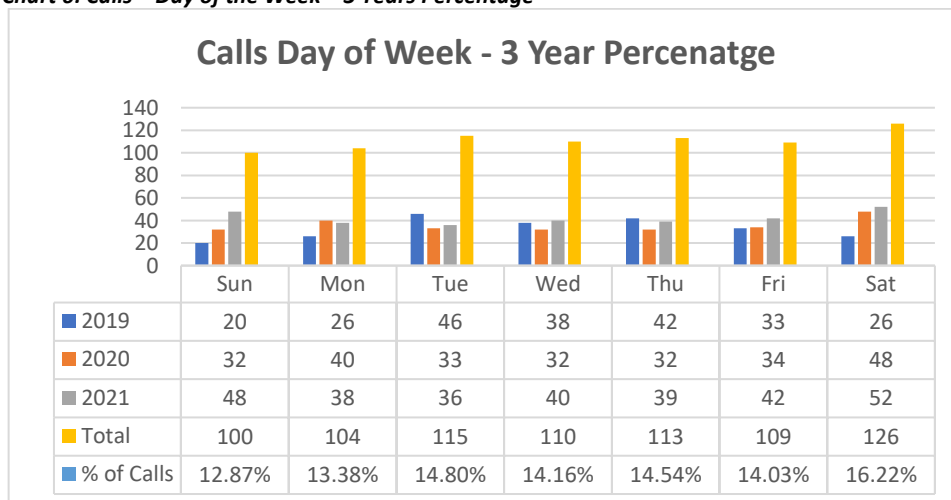
Chart 5: Incidents by Month 2019 - 2021



Incidents by Weekday

Incidents by day of the week is another metric utilized by leadership to manage the resources of the organization. Coupled with time of day and perhaps incidents by month, this information could be of value if a pattern emerges suggesting staffing or resource deployment might change. The chart below illustrates calls by day of the week for the Edwardsburg Fire Department, which does an excellent job of tracking data.

Chart 6: Calls – Day of the Week – 3 Years Percentatge

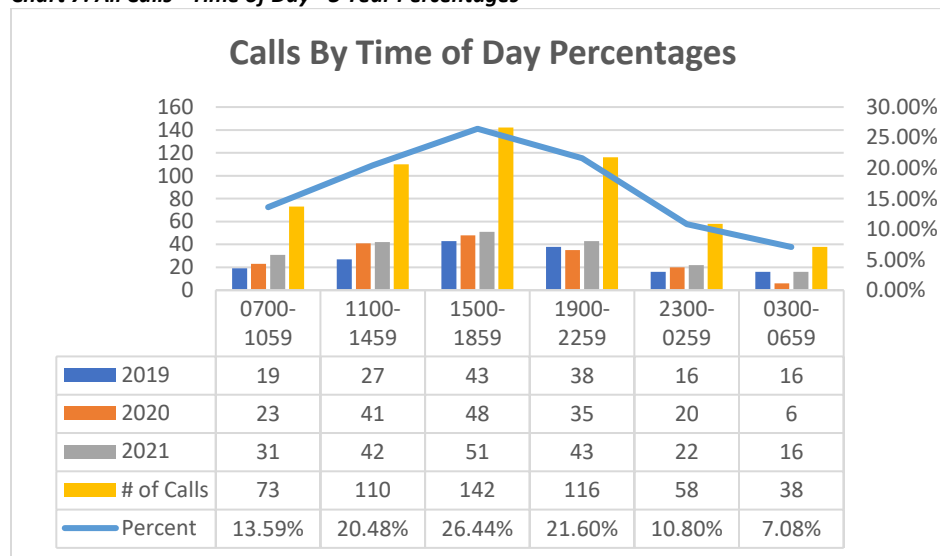


The above chart illustrates the calls by day of the week do fluctuate over the 3-year average, but nothing significant is identified.

Incidents by Time of Day

In most departments, incidents charted by time of day follow a pattern similar to a “bell curve.” The least busy time of day is from midnight to early morning, peaking in the mid to late afternoon, and decreasing in the later evening hours. Although the least busy time of day is from midnight to early morning, it is also when the highest number of civilian fire deaths occur, due to the occupants sleeping. Those most at risk are the very young and old, who often are less able to escape and protect themselves. The chart below illustrates the average for the three years of 2019 – 2021:

Chart 7: All Calls - Time of Day - 3 Year Percentages



The above chart illustrates the calls by time of day for the 3-year average. The Edwardsburg Fire Department experiences an increase in calls starting at about 7 am and calls start to decrease after about 11 pm. Calls between 11 pm and 7 am are less than the remainder of the day. The fact that most of the calls are during the early morning to early evening hours further compounds the daytime staffing problems as this is when most of the paid-on-call members of the fire department are at work in their primary occupation.

Overlapping Incidents (aka: Simultaneous)

The collection and review of data regarding overlapping/simultaneous calls is advantageous to the fire department leadership in determining resource deployment, staffing, budgeting, and planning. The term overlapping/simultaneous incident is a term utilized by different data management systems that refers to times when the fire department is handling an emergency situation and *another* unrelated emergency incident occurs, requiring immediate response.

Fire departments do not have the ability to “stack calls” as do police agencies who routinely prioritize calls and dispatch accordingly. With a few exceptions, when 9-1-1 requests the fire department it is for an emergency – at least in the opinion of the caller.

If every piece of fire or EMS apparatus were available at its assigned location every time a call for service was received the fire department’s reliability would be 100%. If, however, a call is received for a station/unit, but that station/unit is already committed to another incident, the next closest unit must respond from a different station or source. In this case, the substitute company may exceed the maximum prescribed response time. As the number of emergency calls per day increase, the probability increases that the primary unit needed for response is already committed and a backup or mutual aid unit will need to be dispatched. Today in most fire departments overlapping/simultaneous calls are EMS in nature.

***Reliability** is the probability that the resource/apparatus assigned to a territory will be available to respond from within that territory when an emergency occurs in that area. There are times a call is received when the first-due company is out of the area or unavailable. When that occurs, the next closest unit must respond, resulting in a possible elongated response time.*

The table below illustrates the number of times Edwardsburg Fire Department had overlapping incidents and the percentage of overlapping incidents to the total number of calls for a given year:

Table 12: Overlapping Incidents 2019 - 2021

Overlapping Incidents			
Year	Occurrences	% of Total Calls	Annual Calls
2019	13	5.7%	228
2020	6	2.4%	249
2021	7	2.4%	293
Total - 3 Yrs	26	3.4%	770

The average three-year overlapping incidents = 3.4%. There are not national averages of when overlapping incidents require additional resources (personnel and/or apparatus) however, the consultants experience indicated that when overlapping incidents averaged about 20% of the total calls additional resources needed to be considered.

Recommendation – Overlapping Incidents

- *Although infrequent the department should record when more than two (e.g., three, ≥ four) incidents are occurring simultaneously. **Priority 3***

Calls By District

The Edwardsburg Fire Department did provide the consultants with response information for the years with the number of calls per each entity protected and with further broken down to the percentage of the total calls for the 10-year period for each entity. The following table reflects this data for the time period 2011-2021:

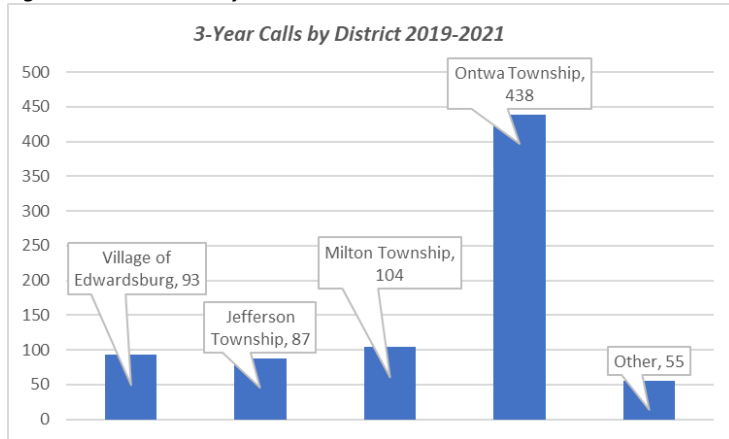
Table 13: Calls By District and of Percentages for 2011-2021

District	Total Calls 2011 to 2021	% of Calls
Village of Edwardsburg	308	13.00%
Jefferson Township	254	10.72%
Mason Township	1	0.04%
Milton Township	279	11.77%
Ontwa Township	1,422	60.00%
Other	106	4.47%
Total	2370	100.00%

As the above table reflects the calls for the Village of Edwardsburg are tracked separately from Ontwa Township and those two districts combined accounted for 73% of the total calls during the period from 2011-2021.

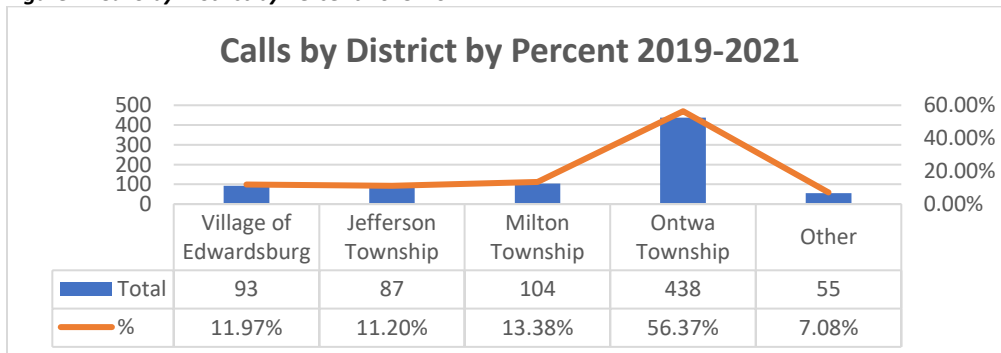
The following figure reflects the number of calls per District for the period of 2019-2021:

Figure 3: 3 Year Calls by District 2019-2021



The following figure reflects the number of calls by percentage per District for the period of 2019-2021:

Figure 4: Calls by District by Percent 2019-2021



Mutual Aid

In some studies, the consultants have found that governing officials believe that requesting assistance from other service providers on a routine basis will preclude them from having to add additional personnel, pay overtime, or provide more apparatus. This thinking is greatly flawed as the foundation of mutual and automatic aid is the reciprocity of services. The Edwardsburg Fire Department stated they currently have unwritten mutual aid agreements, as well as the Mutual Aid Box Alarm System (MABAS).

Mutual Aid: The philosophical concept is to offer assistance to a fire department upon a request made by a host district. The sole purpose is to give or receive assistance when all available resources—equipment or personnel—are depleted, and then on a limited basis. Generally, mutual aid is drawn upon during an emergency incident where a particular or specialized need arises on a small to medium size incident that would not be expected as a lengthy or long-term incident.

Automatic Aid: Differs from mutual aid in that it is a pre-determined agreement with another department to respond automatically when the host department receives a reported emergency or an alarm at a given location or area. This type of aid is utilized on a regular basis to supplement the host agency's initial response to the emergency with pre-determined apparatus, manpower, and Fire Chief officers, and is done so automatically.

The Edwardsburg Fire Department does have unwritten mutual aid agreements with a number of neighboring fire departments. The department provided data regarding mutual aid given and received for the three-year study period of 2019 – 2021, which is best illustrated by the following two tables:

Table 14: Total Mutual Aid 2019 - 2021

Mutual Aid % of Total Calls	
Given	Received
3.77%	4.68%

As indicated by the above table for the three-year study period 3.77% of all of the department's incidents involved mutual aid given to other emergency service providers. Whereas 4.68% of all incidents required some type of outside assistance in mutual aid received.

The following table reflects the mutual aid given and received from the area fire departments for the years 2019 – 2021.

Table 15: Mutual Aid Given & Received 2019 – 2021

Mutual Aid Department	2019		2020		2021		Total 3 Yrs	3 Yrs %	Total 3 Yr	3 Yrs %
	Given	Received	Given	Received	Given	Received	Given	Given	Received	Received
Cass	1	1	0	2	2	2	3	10.34%	5	13.89%
Clay Fire District	2	2	2	3	4	3	8	27.59%	8	22.22%
Cleveland	1	1	0	2	1	1	2	6.90%	4	11.11%
Howard	2	1	4	3	1	2	7	24.14%	6	16.67%
Niles	0	0	0	1	0	0	0	0.00%	1	2.78%
Osolo	0	1	0	1	0	1	0	0.00%	3	8.33%
Penn Twp	0	1	1	2	1	1	2	6.90%	4	11.11%
Pokagan FD	0	0	0	1	1	0	1	3.45%	1	2.78%
Porter FD	2	1	4	2	0	1	6	20.69%	4	11.11%
Total	8	8	11	17	10	11	29	100.00%	36	100.00%

The above table indicates that the majority of mutual aid and/or automatic aid given and/or received were with the Clay Fire District, the Cass Fire Department, the Howard Fire Department, and the Porter Township Fire Department.

Mutual Aid Box Alarm System (MABAS)

The Mutual Aid Box Alarm System currently includes six Midwest states: Illinois, Wisconsin, Indiana, Michigan, Missouri, and Iowa. Fire departments in the following states are considering joining the MABAS system: Minnesota and Ohio.

The MABAS system has been recognized as the “best practice” by the Department of Homeland Security and is currently being considered as the model for inter-state mutual aid agreements. The concept behind MABAS is that a fire department develops an alarm card, which will indicate what apparatus/equipment and/or personnel they are requesting, who they are requesting it from, and what level (how much/many resources) is desired prior to the actual emergency. The MABAS cards are designed to cover a generic situation and/or area of response district. Different cards are designed for situations such as tender box (requiring large amounts of water to be trucked in), mass casualty box, confined space box, hazardous material box, grass/brush fire box, etc. A portion of the card is classified with the lowest alarm (still alarm) and progresses in magnitude in the following order, box, 2nd, 3rd, 4th, and 5th alarm. Each alarm will bring in additional apparatus as designated by the host (community having the emergency) department.

The card also designates the type of equipment to be sent and from which department. For example, a typical card will have an alarm classification heading (i.e., engines, tankers, trucks, ambulance, Fire Chiefs, and special equipment).

Another portion of the MABAS Box Card designates the departments that are to change quarters to the stricken community. Changes of quarter units respond from their respective communities and staff the

fire/EMS station of the stricken community until the time that community can cover additional calls itself.

MABAS cards are a predetermined assessment of the fire and/or EMS risk in a community and can be changed (additional equipment requested) during the course of an incident. The value of such a card is the fact that it releases the command officer from the need to recall what equipment is available and where it might come from during stressful times.

Most MABAS cards are designed to take a minimum number of resources from any neighboring community, thereby allowing that community to adequately protect its own district. Therefore, it is common to have numerous departments respond to an incident versus only a few departments with multiple apparatus and staffing.

By utilizing the MABAS system, the fire department automatically has the ability to utilize apparatus from other MABAS subscribers in other divisions (areas). Therefore, if a named community is unable to respond for any reason, MABAS has the ability to automatically fill that position with another unit.

Edwardsburg Fire Department MABAS

Edwardsburg Fire Department is part of MABAS Division 3502– Cass County.

A Division is comprised of a number of local adjoining municipalities that create a substructure within an assigned region. MABAS – MI divisions may have one or more participating jurisdictions. The purpose of a Division is to bring a political commitment through a signed resolution to provide resources when called upon outside of their normal mutual aid agreement to another jurisdiction.

Division 3502 consists of the following departments:

- *Cassopolis Volunteer FD*
- *Dowagiac FD*
- *Edwardsburg FD*
- *Howard Township Fire Department*
- *Indian Lake Volunteer FD*
- *Marcellus FD*
- *Newberg Township Fire and EMS Services*
- *Niles Township*
- *Porter Township FD*
- *Sister Lakes Volunteer FD*
- *Wayne Township FD*



Response Time

Providing emergency services is all about response times. How long it takes a fire department or emergency medical responders to get on location to begin to mitigate the fire or provide emergency medical service is the primary issue. An acceptable response time is subjective depending on if you are the one in need or not. When a citizen makes a call to 9-1-1 for an ambulance or fire, every second seems like minutes and his or her anxiety will disproportionately increase as the severity of the incident worsens.

All fire professionals understand the importance of response time, and many have witnessed the results of not being there just a few seconds sooner. The chart below illustrates the flow of a 9-1-1 call as well as the which agency/Department has control of time it takes to process, alert, and respond.

Fire department response times—for first-due units and for the total effective response force—provide valuable information for resource allocation decisions such as fire station location, apparatus deployed and crew size/staffing levels; therefore, accurate data is essential.

Response Time Components

When examining response times, it is essential that all parties are talking about the same response time components. The actual measurement of response time must include the understanding of all the following components of response time:

Detection Time: The time it takes to detect an emergency incident and dial 9-1-1.

Notification Time: The time from when the call is received by dispatch aka: Public Safety Answer Point (PSAP) to the time the department is notified.

Turnout Time (Out the Door Time): The time it takes personnel to prepare and leave quarters after notification.

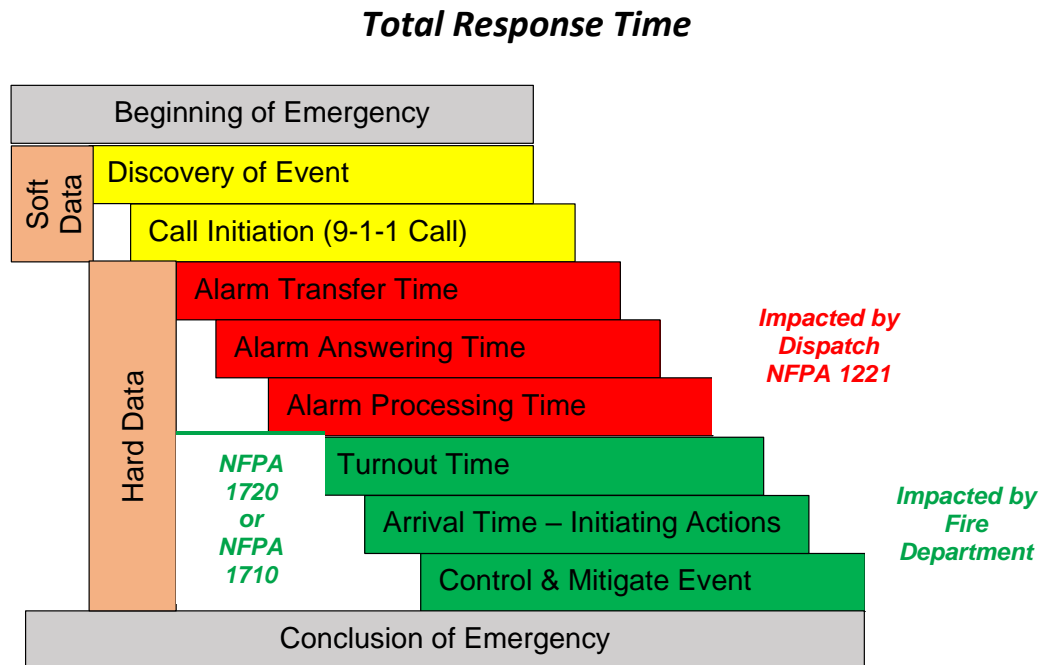
Travel Time: The time the first apparatus/ambulance leaves the station to the time it arrives on the scene. (The term travel time ends when the unit arrives on location of the emergency)

Mitigation Time: The time the first apparatus arrives at the scene to the time when actual extinguishing/treatment (mitigation) efforts begin.

Who Controls Response Times

The figure below illustrates which agency within the emergency dispatch process is responsible for each stage of an emergency call, dispatch, and response.

Chart 8: Response Time Responsibilities



Detection Time: (Yellow) The time it takes to detect the emergency incident and dial 9-1-1. Considered soft data because there are no recorded or data pertaining to this aspect of the emergency; service providers have no control on Detection Time.

Notification Time: (Red) The time from when the call is received by PSAP/Dispatch to the time the Department is notified. The PSAP/Dispatch has complete control of these times. The standard is NFPA 1221 2019 edition section 7.4.3 requiring the PSAP (Communication Center) to be able to answer the phone and notify the Department within 60 seconds.

Turnout Time: (Green) The time it takes personnel to prepare and leave quarters after notification. The fire department has complete control of these times. The standard is NFPA 1720, 2020 edition section 4.3.3, requiring a turnout time of 60 seconds maximum for EMS calls and 90 seconds when the station is staffed (if not staffed it is not specified).

Travel Time: (Green) The time the first fire apparatus leaves the station to the time it arrives on the scene. (The term travel time ends when the unit arrives on location of the emergency.) The fire department has very limited control of this component of response time due to traffic, weather

conditions, simultaneous incidents, etc. The standard is NFPA 1720, 2020 edition section 4.3.2 refers to the response table as illustrated below:

Table 16: NFPA 1720: 4.3.2 Staffing and Response Time (edition 2020)

NFPA 1720 Staffing & Response Times (2014 Edition)				
Demand Zone^a	Demographics	Minimum Staff^b	Response Time^c	Meet Objective
Urban Area	>1,000 people/Sq. Mi.	15	9 Minutes	90% of the time
Suburban Area	500-1,000 People/Sq. Mi.	10	10 Minutes	80% of the time
Rural Area	<500 People/Sq. Mi.	6	14 Minutes	80% of the time
Remote Area	Travel Distance ≥ 8 Mi.	4	Based on Travel Distance	90% of the time
Special Risks	As Determined by AHJ	Based on Risk	AHJ	90% of the time

^a Jurisdiction can have more than one demand zone.

The Village of Edwardsburg would be considered a Suburban Area Demand Zone in the above table and the remainder of the Edwardsburg Fire Department response area in the three Townships would be considered a Rural Area Demand Zone.

Mitigation under NFPA 1720 section 4.3.4:

Upon assembling the necessary resources at the emergency scene, the fire department shall have the capability to safely commence an initial attack within 2 minutes 90 percent of the time.



Public Safety Answering Point (PSAP-aka, Dispatch

The Edwardsburg Fire Department is dispatched to emergency incidents through the Cass County 911 Central Dispatch Center and is operated by the Cass County Sheriff. The 911 Central Dispatch Center takes emergency and non-emergency calls and dispatches for six law enforcement agencies, six ambulance services and 13 fire departments.

The Central Dispatch Center operates 24 hours per day, 7 days a week, and 52 weeks a year. The 911 Central Dispatch Center employs 9 full time dispatchers, 3 part time dispatchers, 1 supervisor and a 911 Central Dispatch Coordinator. In 2021 the 911 Central Dispatch Center answered approximately 83,000 non-emergency calls and approximately 24,601 911 calls. Police, Fire and EMS were dispatched to approximately 57,508 incidents.

Edwardsburg Fire Department Response Time Data

The Edwardsburg Fire Department provided the consultants with limited data on Dispatch times. The data provided indicated the following average response times for the fire department for the years 2019-2021. The data was provided by the Cass County 911 Central Dispatch Center.

Table 17: Average Response Times 2019-2021

Response Time	2019	2020	2021
in Minutes	13.53	12.32	13.11
Response Time in Minutes	2019	2020	2021
	13.53	12.32	13.11

National Industry Standards

There are numerous State and National standards that the fire department must be aware of, and standards change often. This is particularly true if a serious incident occurs (such as a death of a Firefighter). Fire departments are typically judged by these standards, and it appears the lines between Sovereign Immunity and ability to sue government and its employees is not as clear as in the past. Therefore, it is prudent to discuss State and National standards that impact the fire department services. Consideration as to the implications of these standards to the department can only be determined by those who govern, inasmuch as many of the standards are not mandatory. This report contains pertinent information from the National Fire Protection Association (NFPA), National Institute of Standards and Technology (NIST), Insurance Service Office (ISO), Occupational Safety and Health Administration (OSHA), and Center of Public Safety Excellence (CPSE).

National Fire Protection Association (NFPA)

Non-mandatory

The National Fire Prevention Association (NFPA) is a global, non-profit organization that promotes safety standards, education, training, and advocacy on fire and electrical-related hazards. Established in 1896 as a way to standardize the use of fire sprinkler systems, the NFPA's scope grew to include building design, rescue response, electrical codes, and other safety concerns.

NFPA publishes more than 300 consensus codes and standards intended to minimize the possibility and effects of fire and other risks. NFPA codes and standards, administered by more than 250 Technical Committees comprising approximately 8,000 volunteers, are adopted, and used throughout the world.

The National Fire Protection Association (NFPA) uses consensus standard rule making. Consensus standards are standards developed through the cooperation of all parties who have an interest in participating in the development and/or use of the standards. Consensus requires that all views and objections be considered and that an effort be made toward their resolution.

NFPA consensus standards establish widely accepted standards of care and requirements for certain practices. *Standards* are an attempt by an industry or profession to self-regulate by establishing minimal operating, performance, and/or safety standards, which establish a recognized "standard of care." Committees composed of industry representatives, Fire Service representatives, and other affected parties, who seek consensus in their final rule, write these standards. The outcome is a "minimum" that everyone can agree on, rather than an "optimum" that is the best case.

NFPA 1710 or NFPA 1720

NFPA adopted two (2) standards addressing fire department organization and development: NFPA 1710 (Organization and Development of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments) and a sister standard NFPA 1720 (Organization and

Development of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by Volunteer/Paid on Call Fire Departments).

Volunteer Fire Department

The Edwardsburg Fire Department has Paid on Call members as illustrated in the table below:

Table 18: Edwardsburg FD Membership

FD Members		
Paid on Call	26	100.0%
Volunteer	0	0.00%
Total	26	100%

Therefore, they are considered to be a volunteer fire department.

Volunteer Fire Department. A fire department having emergency service personnel comprising more than 85 percent or greater of its department membership.

Why Does It Matter Which NFPA Code?

Although NFPA 1720 is very comprehensive, it is not as stringent as NFPA 1710. The consultants recommend the Township and department should **not adopt** either code; rather they should attempt to meet as many of the NFPA 1720 standards as feasibly and fiscally possible. Taking the NFPA 1720 standards under advisement should not negatively impact the operations of the department, and the Edwardsburg Joint Fire Board should not diminish the current service level.

Suppression Staffing and Response NFPA 1720 Standard

Under NFPA 1720, the number of responding Firefighters and the amount of time in which they are required to respond varies with the number of people (population) per square mile to eight-mile radius as illustrated in the table below.

Table 19: NFPA 1720: 4.3.2 Staffing and Response Time (edition 2020)

Demand Zone (a)	Demographics	Minimum Staff to Respond (b)	Response Time (Minutes) (c)	Meet Objective (%)
Urban	>1,000/mi ²	15	9	90
Suburban	500-1,000/mi ²	10	10	80
Rural	<500/mi ²	6	14	80
Remote	≥ 8 miles	4	Related to Travel Distance	90
Special Risk	AHJ*	AHJ*	AHJ*	90

* Determined by Authority Having Jurisdiction (AHJ)

- a) A jurisdiction can have more than one demand zone.
- b) Minimum staffing includes members responding from the AHJ's Department and automatic aid.
- c) Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table.

Again, The Village of Edwardsburg would be considered a Suburban Area Demand Zone in the above table and the remainder of the Edwardsburg Fire Department response area in the three Townships would be considered a Rural Area Demand Zone.

For example, if the fixed population is 500 to 1,000 people within one square mile, a Department must respond with a minimum of ten (10) Firefighters within ten minutes 80% of the time. This is considerably less stringent than the NFPA 1710 requirement for the same criteria of 14 Firefighters (one additional if the aerial is utilized) within a five-minute response from the time of notification by dispatch 90% of the time.

NFPA 1720 Special Interest

The NFPA 1720 standard is comprehensive and those who govern and lead the fire department should be familiar with the components of this document. It is less stringent than NFPA 1710. What should be of special interest to the Department is Chapter 4 of NFPA 1720:

Chapter 4 Organization, Operation, and Deployment

- 4.1 Fire Suppression Organization*
- 4.2 Community Risk Management*
- 4.3 Staffing and Deployment*
- 4.4 Reporting Requirements*
- 4.5 Fire Suppression Operations*
- 4.6 Initial Fire-Fighting Operations*
- 4.7 Sustained Fire-Fighting Operations*
- 4.8 Intercommunity Organization*
- 4.9 Emergency Medical Services (EMS)*
- 4.10 Special Operations*

4.3 Staffing and Deployment

4.3.1. The fire department shall identify minimum staffing requirements to ensure that a sufficient number of members are available to operate safely and effectively.

4.3.2* Table 7 (previous) shall be used by the AHJ to determine staffing and response time objectives for structural firefighting, based on a low-hazard occupancy such as a 2,000 ft² two-story, single-family home without basement and exposures and the percentage accomplishment of those objectives for reporting purposes as required in 4.4.2. (reference to previous table).

At one time, the only staffing and response time requirements pertaining to volunteer and Paid on Call Departments were as follows: upon assembling the necessary resources at the emergency scene, the fire department shall have the capability to safely commence an initial attack within two minutes 90% of the time.

Today, departments qualifying under NFPA 1720 must comply with staffing and response times as illustrated in the table above.

4.4 Annual Evaluation

4.4.2.1. The fire department shall evaluate its level of service, deployment delivery, and response time objectives on an annual basis.

4.4.2.2. The evaluation shall be based on data relating to level of service deployment, and the achievement of each response time objective in each demand zone within the jurisdiction of the fire department.

Quadrennial Report

4.4.3 Quadrennial Report. The fire department shall provide the Authority Having Jurisdiction (AHJ) with a written report, quadrennially, which shall be based on the annual evaluation required by 4.4.2.

4.4.3.2 This report shall explain the predictable consequences of identified deficiencies and address the steps within a fire department's strategic plan necessary to achieve compliance.

4.5 Fire Suppression Operations

NFPA 1720 is much less stringent than NFPA 1710 (career Departments), which specifies how many individuals must be on the emergency scene to begin an interior fire attack. However, the following standards do apply to volunteer and Paid on Call Departments:

4.5.1 Incident commander. One individual shall be assigned as the incident commander.

4.5.1.2 The incident commander shall be responsible for the overall coordination and direction of all activities for the duration of the incident.

4.6.1 Initial firefighting operations shall be organized to ensure that at least four members are assembled before interior fire suppression operations are initiated in a hazardous area.

4.6.3 Outside the hazardous area, a minimum of two members shall be present for assistance or rescue of the team operating in the hazardous area.

4.6.4 Initial attack operations shall be organized to ensure that if, upon arrival at the emergency scene, initial attack personnel find an imminent life-threatening situation where immediate action could prevent the loss of life or serious injury, such action is permitted with less than four personnel when conducted in accordance with NFPA 1500.

4.7.1 The fire department shall have the capability for sustained operations, including fire suppression; engagement in search and rescue, forcible entry, ventilation, and preservation of property; accountability for personnel; the deployment of dedicated rapid intervention crew (RIC); and provision of support activities for those situations that are beyond the capability of the initial attack.

It is important to re-emphasize that NFPA standards are just that, “standards,” and not mandatory by law for a fire department to meet. However, once an incident occurs, the department will be judged on its performance as compared with the NFPA standards. It is not recommended that any department intentionally disregards these NFPA standards; rather, a Department should work to meet them.

Recommendation – NFPA Standards

- *The Edwardsburg Fire Department Fire Department should not adopt NFPA 1720. Adoption would include the adoption of all OSHA and NFPA standards by reference. However, a plan should be developed to meet as many standards as possible in the future. **Priority 3***

Occupational Safety and Health Administration (OSHA)

Mandatory

In firefighting, the policy of **two-in, two-out** refers to United States Occupational Safety and Health Administration (OSHA) policy 29 CFR 1910.134(g)(4)(i) that mandates Firefighters never go into a dangerous situation in a fire or rescue incident alone, and that there be two Firefighters outside the hazard area to initiate a rescue of the Firefighters inside, should they become in trouble, during the initial stages of the incident where only one crew is operating in the hazard area. Once a second crew is assigned or is operating in the hazardous area, the incident is no longer considered in the initial stage and a dedicated search team or rapid intervention crew is required. OSHA requirements are set by statute, standards, and regulations.

The respiratory protection standard requires that workers engaged in fighting interior structural fires work in a buddy system; at least two workers must enter the building together, so they can monitor each other's whereabouts as well as the work environment. There must also be at least two standby personnel outside the fire area prepared to rescue the inside Firefighters should the need arise (**two-in/two-out**). One of these outside Firefighters must actively monitor the status of the inside fighters, but the second outside Firefighter may perform a variety of other duties, such as pump operations, incident commander, or outside hose line operation. There are no provisions in the standard to waive the requirements for either the "two-inside Firefighters" or the "two-outside Firefighters", although the circumstances under which this provision applies are more limited than generally understood.

The standard does not require the "two-in/two-out" provision if the fire is still in the incipient stage and it does not prohibit Firefighters from fighting the fire from outside before sufficient personnel have arrived. It also does not prohibit Firefighters from entering a burning structure to perform rescue operations when there is a reasonable belief that victims may be inside. It is only when Firefighters are

engaged in the interior attack of an interior structural firefighting that the "two-in/two-out" requirement applies. It is the incident commander's responsibility to judge whether a fire is an interior structural fire and how it will be attacked.

Recommendation – OSHA

- Edwardsburg Fire Department *should continue its efforts in ensuring they meet the OSHA “two-in/two-out” rule, including all references to respiratory protection. **Priority 5***

Center for Public Safety Excellence (CPSE)

Non-mandatory

A better fire department evaluation tool exists. The International Association of Fire Chiefs (IAFC) has developed a program that measures the quality and performance of a particular Fire Service agency and will award national accreditation to those departments that pass the stringent criteria. The Center for Public Safety Excellence (CPSE), the umbrella organization, utilizes a process known as the Commission on Fire Accreditation International (CFAI). It specifies more than 250 performance indicators, including 70+ core competencies against which a fire agency can measure itself.

The CFAI is a structured process for documenting the levels of fire safety, fire prevention, fire safety education, and fire suppression services currently provided, and for determining the future level of service the Department should provide. The accreditation process asks the community to determine and document whether its fire protection services are appropriate, adequate, and effective.

The advantage to the CFAI accreditation program lies in the process itself. The department must examine every aspect of its existence and determine the most cost-effective means of providing service. This program requires commitment and effort on the part of the Fire Administration. If at some future point the Department wishes to seek accreditation, it is recommended that a single individual be assigned full-time for the completion of this project.

Although the consultants do not recommend the Edwardsburg Fire Department begins the accreditation process, it is suggested that the administration look at the performance indicators or benchmarks set up for the evaluation process to use as a guide while developing policies and procedures for the Department.

Recommendation – Accreditation

- *The Edwardsburg Fire Department should not seek international accreditation (CFAI) at this juncture; rather, the CFAI performance indicators and core competencies should be utilized as a model for quality and a benchmark for examining and evaluating current practices. **Priority 5***



Community Education

The major issues for the future of the Edwardsburg Joint Fire Board and the Edwardsburg Fire Department revolve around the financial needs and funding to provide the resources required to provide adequate staffing, apparatus, and equipment in order to provide the fire and other emergency protection for the citizens of Edwardsburg Fire Department service area.

Due to the limitations of increasing revenue from property taxes the Edwardsburg Joint Fire Board has very few options for raising additional revenue to meet future fiscal requirements. The problem of future financial needs will require support from the citizens and businesses within Edwardsburg Fire Department service area. Possible revenue sources would be the implementation of an increase of Township millage devoted to the fire services or a special assessment specifically designed for public safety such as Fire Department operations. The concept of implementing either of these funding options will require the support of the citizens and business community of the Townships served by the Edwardsburg Fire Department.

This will require the Townships, the Edwardsburg Joint Fire Board and the Edwardsburg Fire Department to work together in educating the public about the services the Edwardsburg Fire Department currently provides, what resources the fire department has to provide the services, how is the fire department staffed, what other resources does the fire department have including fire apparatus, what services is the fire department having problems providing and why, what additional resources are required to meet the current and future needs, what will those resources costs, what would be the priorities for resources, what are funding options and how can the funding needs be implemented.

Recommendations – Community Education and Support

- *The Edwardsburg Fire Department and the Edwardsburg Joint Fire Board should develop a program that can be used to educate the citizens in the community about the fire department including how the fire department operates, how it is staffed, current resources, recruitment issues, current challenges, additional resources required to address the challenges, and how can the community assist in helping the fire department. **Priority 1***
- *The Edwardsburg Fire Department and the Edwardsburg Joint Fire Board should share this report with the community and use the report to share the Edwardsburg Fire Department story. **Priority 1***

- *The Edwardsburg Joint Fire Board should consider appointing a committee consisting of Township Board members, fire department members and community leaders including private citizens and members from the business and agricultural community with the purpose of focusing and becoming knowledgeable about the Edwardsburg Fire Department story and helping with developing solutions both short-term and long-term for the fire department staffing and funding needs. **Priority 1***
- *The Townships should work with the Committee to plan the possible increase of funding of the special assessment district or an increased millage for the fire department if determined to be necessary to solve the fire department funding issues. **Priority 1***

Summary of Recommendations

Edwardsburg Fire Department - Recommendation Priority		
Priority	Topic	Recommendation
1	Staffing Options	<i>The Edwardsburg Fire Department should not move towards hiring full-time daytime hour employees at this time primarily due to the costs associated with salaries and benefits.</i>
1	Paid-on-Call Members & Recruitment	<i>The Edwardsburg Fire Department should establish minimum acceptable annual attendance for department training, response activities, and other department expectations for all Paid-on-Call members.</i>
1	Future Funding Sources	<i>The Edwardsburg Joint Fire Board and the Edwardsburg Fire Department managers should determine which proposed staffing options are of the higher priority for implementation and possible funding.</i>
1	Community Education & Support	<i>The Edwardsburg Fire Department and the Edwardsburg Joint Fire Board should develop a program that can be used to educate the citizens in the community about the fire department including how the fire department operates, how it is staffed, current resources, recruitment issues, current challenges, additional resources required to address the challenges, and how can the community assist in helping the fire department.</i>
1	Community Education & Support	<i>The Edwardsburg Fire Department and the Edwardsburg Joint Fire Board should share this report with the community and use the report to share the Edwardsburg Fire Department story.</i>
1	Community Education & Support	<i>The Edwardsburg Joint Fire Board should consider appointing a committee consisting of Township Board members, fire department members and community leaders including private citizens and members from the business and agricultural community with the purpose of focusing and becoming knowledgeable about the Edwardsburg Fire Department story and helping with developing solutions both short-term and long-term for the fire department staffing and funding needs</i>
1	Community Education & Support	<i>The Townships should work with the Committee to plan the possible increase of funding of the special assessment district or an increased millage for the fire department if determined to be necessary to solve the fire department funding issues.</i>
2	Paid-on-Call Salaries	<i>The Edwardsburg Fire Department should consider moving away from paying their members by the current point system.</i>
2	Paid-on-Call Salaries	<i>The paid-on-call rate for paid-on-call members should be established by the Edwardsburg Joint Fire Board based on the annual fire department budget funding capabilities</i>
2	Paid-on-Call Salaries	<i>The recommendation is that the Edwardsburg Joint Fire Board consider paying the paid-on-call members a rate of \$16.00 per call and for training in order to maintain adequate staffing for fire department services.</i>
2	Staffing Options	<i>The Edwardsburg Fire Department should implement a duty crew staffing program to provide on-duty crew of at least two members to be available to respond to calls during the evening hours during the week and a separate duty crew for weekend standby. The duty crew members would be paid a stipend for standby as well as the POC salary rate for any calls they responded to as soon as it is fiscally possible</i>
2	Staffing Options	<i>The Edwardsburg Fire Department should implement a part-time staffing program to provide on-duty part-time personnel in the station Monday through Friday for at least 40 hours per week as soon as it is fiscally possible.</i>
2	Paid-on-Call Members & Recruitment	<i>The Edwardsburg Fire Department should develop an ongoing recruitment program to provide enough Paid-on-Call members to meet the needs of the community.</i>

Edwardsburg Fire Department - Recommendation Priority		
Priority	Topic	Recommendation
2	Paid-on-Call Members & Recruitment	<i>Current members should be encouraged to participate in developing new ideas and plans for actively recruiting new Paid on Call members</i>
2	Paid-on-Call Members & Recruitment	<i>The Edwardsburg Fire Department should continue with their social media presence by enlisting the help of current members with experience to share the story and events of the fire department, but more importantly to use as a method of recruitment for new members.</i>
2	Future Funding Sources	<i>The consultants believe the adoption of an increase in mileage and the Special Assessment Districts for additional funding would be the best long-term funding solution for the Edwardsburg Fire Department. The Edwardsburg Joint Fire Board will need to determine if the Board supports this concept in order to properly staff the Edwardsburg Fire Department.</i>
2	Future Funding Sources	<i>The consultants believe that with the current annual Edwardsburg Fire Department budget the recommendation to implement a paid-on-call pay rate system is achievable with some budget priorities being rearranged.</i>
2	Data Quality Control	<i>Edwardsburg Fire Department should continue utilize and manage a data quality control program to ensure the data retrieved serves a purpose in the management of the department.</i>
3	Future Funding Sources	<i>The Edwardsburg Joint Fire Board should consider using short term loans of 5 to 7 years to fund future capital outlays purchases, especially those that include fire department vehicles or other high cost items.</i>
3	Possible Partnership	<i>If the Edwardsburg Joint Fire Board had an interest in further discussing the possibility of any type of partnership with the Edwardsburg Ambulance Service, then it is recommended they make contact with the Edwardsburg Ambulance Authority Board to discuss the idea.</i>
3	False Alarms	<i>Reduction of false fire alarms can be reduced by regular maintenance, public education, fire inspections, immediate follow-up on all false alarms by the FD. The department should implement these steps as necessary.</i>
3	Overlapping Incidents	<i>Although infrequent the department should record when more than two (e.g., three, ≥ four) incidents are occurring simultaneously.</i>
3	NFPA Standards	<i>The Edwardsburg Fire Department Fire Department should not adopt NFPA 1720. Adoption would include the adoption of all OSHA and NFPA standards by reference. However, a plan should be developed to meet as many standards as possible in the future</i>
4	Possible Partnership	<i>The consultants believe that a potential partnership with the Edwardsburg Ambulance Service may have some merit and there will be major issues that will need to be addressed by both Boards. The question that needs to be answered is will a partnership between the two organizations solve the current staffing problems and will the solution be cost-effective?</i>
5	OSHA	<i>Edwardsburg Fire Department should continue its efforts in ensuring they meet the OSHA “two-in/two-out” rule, including all references to respiratory protection.</i>
5	Accreditation	<i>The Edwardsburg Fire Department should not seek international accreditation (CFAI) at this juncture; rather, the CFAI performance indicators and core competencies should be utilized as a model for quality and a benchmark for examining and evaluating current practices</i>

Appendix A – Data Request

Directions:

- *The data you submit at this time will be utilized in determining recommendations; therefore, **please ensure the data is correct**. New data after the draft report is presented will not be utilized.*
 - *Please put the data in an electronic Excel format*
 - *Depending on your data management system it could take up to two weeks to gather the information requested – if you need additional time, please contact me. If the document exceeds your email size, I will send you a DropBox link to submit your data. Please also put the data on a flash drive and present it to the consultant upon the first site visit.*
 - *Show each year data separately i.e., 2019, 2020 and 2021 – do not group the years together.*
 - *Before you feel you need to conduct a hand count, please call me (815) 728-9111*
-

- **General Information**

- Overview of the department
 - History
- Overview of the service area protected
 - District
 - City/Village/Township
- Population –
 - Residents of Township
 - Residents of other Protection Area
- In-flux or Out-flux of Daytime Population
- Department’s Strategic Plan

- **Governance**

- Municipality, Town, City, Village, District, Township, etc.
 - Structure (Board, Council, Trustees, Commissioners etc.)
 - # of elected officials
 - Hierarchy (organization chart)
 - Member’s term (years, staggered, term limits)
 - How is the president/chairperson determined
 - Authority flow
- Fire/EMS Leadership
 - Organization chart
 - Selection process of officers
 - Job requirements:

- Administrative
 - Supervisory
 - Operational
 - Length of terms of officers
 - Requirement/certifications needed for each officer position
 - Fiscal responsibilities

- **Response District –**
 - Map of Coverage Area
 - Map of the District
 - Map of Area of Concern for Relocation of Station
 - Map of Contiguous Surrounding Area Showing Department Stations Locations
 - Total Square Miles Protected
 - Square Miles of Hydrant Area
 - Square Miles of Non-Hydrant Area

- **Personnel Management/Human Resources**
 - Current Roster of Members
 - Personnel (information needed for all employees)
 - List of members (sworn and non-sworn)
 - Hire date
 - Age or date of birth
 - Organizational Chart
 - # of Career
 - # of Paid On Call
 - # of Part-time (Paid On Premise)
 - # of Volunteers
 - # of Contractual
 - # of Other Employees (civilian)
 - Rank Structure (Number of Employees in Each Category)
 - Minimum/Maximum Staffing
 - Minimum staffing =
 - Maximum staffing =
 - # of days at maximum daily staffing (show for each study period year)
 - # of days at minimum daily staffing (show for each study period year)
 - Current salary of each employee (name, rank, salary)
 - Spreadsheet – name, rank, current salary,
 - Spreadsheet with the benefit breakout -health, pension, taxes, etc. for fiscal year of the study
 - Labor agreement
 - Department’s By-Laws (if corporation)
 - Police & Fire Commission or Civil Service Regulations
 - Employee Policy & Procedure Manual (electronic version)
 - Promotional Process – including forms utilized

- History of Turnover (All Employees Last 3 Years – Include Reason and/or Exit Interview Data)
- Recruiting/Retention Programs
- Hiring Process (all forms)
 - Application
 - Hiring packet
 - Reference questions
 - Interview questions
 - Etc.
- Grievances/Discipline Issues
- Performance Evaluation process and forms
- Last year's overtime by employee – include rank
- FLSA pay cycle (if not in contract)
- SOG/SOP Manual – prefer electronic copy – (sure to include HR policy section)
- Department Employee's Handbook
- New employee Orientation Process – (packet and/or forms)

- **The Department**
 - Department SOG's
 - Department Rules & Regulations
 - Annual Reports – Last 3 Years
 - Current ISO Rating
 - Provide complete ISO document
 - Last ISO On-Site Evaluation (copy of point distribution sheet)
 - Last On-Site Evaluation
 - Accreditations
 - Others

- **Emergency Activities –**
 - Total calls last ten years (no breakdown just total calls per year)

In Addition

- **Last 3 Years (All Sub-Sections)**

NFIRS Series	Nature of Call	Calls 2019	Calls 2020	Calls 2021
100	Fires			
200	Overpressure/Explosion			
300	Rescue/EMS			
400	Hazardous Conditions			
500	Service Calls			
600	Good Intent Calls			
700	False Alarm/False Calls			
800	Severe Weather			
900	Special Incidents			
	<i>Total Calls</i>			

- # Of Emergency Responses
- **NFIRS**) Type of Responses: *For each of the 3 years*
- EMS Responses # of:
 - 1st Responder
 - ALS
 - BLS
 - Non-emergency Transports/Transfers, etc.
- Incidents by Time of Day
- Incidents by Day of the Week
- Incidents by Month
- Calls Breakdown by Area (City, District, Town, Etc.)
- Distribution by Shift
- Distribution by Station
- Response Times: (include documentation from dispatch)
 - Notification time
 - Turnout time
 - Drive time
 - Mitigation time
- Mutual Aid – Auto Responses (Given & Received) – With Whom? – Copy(ies) of Written Agreement
- Simultaneous (Overlapping) Call Data

- **Dispatch (PSAP)**
 - Who provides dispatch
 - Location (address) of dispatch center
 - Cost
 - Dispatch data – time from receiving call to FD notification
 - *A data printout showing CAD verification times - from call received until agency is dispatched. CAD shows minutes and seconds.*
 - Who answers 9-1-1
 - Who answers cellular 9-1-1
 - # of Employees
 - # of Shifts
 - Staffing per Shift (minimum & maximum)
 - EMD Program
 - Dispatchers/Call Taker Certifications

- **Fire Station(s) – include mailing address for each station – include City & Zip**
 - Current Facilities
 - # Of Stations – Street Address
 - Square Footage – (Floor Plans for each if available)
 - Age
 - Future Facility Plans/Needs Documents

- **Apparatus & Equipment –**

- Type of Apparatus (I.E. Engine, Ambulance, Utility, Truck – Include Manufacturer)
- Apparatus department ID number
- Pump & Tank sizes
- Mileage
- Engine Hour Reading (if appropriate)
- Vehicle VIN Number
- Age of Apparatus
- Manufacturer
- Replacement Schedule
- Apparatus maintenance records
 - Internal
 - External
- Special Teams Apparatus
- Specialized Equipment: Haz Mat, Water Rescue, Etc.
- Radio, Type and Frequencies
- Computers (Number of, Type, Age, Replacement Plan)
 - In Apparatus?
 - Software Programs
- **Training**
 - Training Records (Last 3 years) for each member
 - Training schedule
 - Training hours per month and subject / per employee
 - Training Curriculum & Lesson Plan
 - Instructors qualifications
 - Training Manual
 - Certifications Categories (state)
 - Special Teams – certifications
 - All current employees' certification level
- **Fire Prevention**
 - Review the current general fire prevention and fire inspection programs
 - Number of inspectable building
 - Types of inspections/number each category last 3 years
 - History of inspections
 - Violations corrected last 3 years
 - Number and types of re-inspections
 - Code adoption and enforcement activities
 - Fire codes
 - Building codes
 - Trends in permits
 - New construction and involvement in last 3 years
 - Department's sharing of information and resources

- Review pre-incident planning program
 - Number of pre-plans completed
- List fire investigation programs and activities last 3 years

- **Safety Education**
 - Public Safety Education Programs
 - Public Safety Education Data (Last 3 Years)

- **Fiscal**
 - Past three years of audited year financial statement
 - Current year audited financials
 - Past three years' budget
 - Operating – include all revenue and expenses
 - Capital - include all revenue and expenses
 - Financial policies and procedures
 - Purchasing policies
 - Equipment or Capital reserve fund ledger
 - Overtime records
 - Ambulance information –
 - Ambulance revenue current year and two previous years
 - Ambulance billing contract
 - Copy of ambulance rates charged and authority for those rates i.e. ordinance
 - Identification of all accounts for the department
 - Account details for each of the above accounts – last three years

- **Revenue**
 - List of grants applied for and/or received for current year and two previous years
 - List 2% fire dues received current year and two previous years
 - List and explanation of any other department revenue received i.e. inspections fees, permit fee, etc.
 - Other information needed:
 - Equalized Assessed Valuation (EAV) if multiple communities for all

- **Resource Hospital**
 - Project Medical Director contact information
 - Involvement level with resource hospital
 - Breakdown of where patients are transported (3-year period)

Any Additional Information Deemed Important

Revised: April 2021