

# **Joint Fire & EMS District Feasibility Study**

**for the**

**City of Waterville, Waterville Township,  
and the Village of Whitehouse**

**by**

**The Ohio Fire Chiefs' Association**

**March 2019**



**PREMIER • PROFESSIONAL • PROACTIVE**

## Executive Summary

The Ohio Fire Chiefs' Association performed a feasibility study to determine if the formation of a joint fire and emergency medical services (EMS) district involving the City of Waterville, Waterville Township, and the Village of Whitehouse would be beneficial to their respective communities. The study included an analysis of the current fire and EMS delivery systems in their respective response areas, risk analysis, evaluation of equipment and facilities, and creation of a budget based on the projected operational expense of a new fire and EMS district.

The Waterville Fire Department (WFD) is a municipal-operated agency that provides fire protection and EMS to the City of Waterville and to approximately one-half of Waterville Township. WFD is primarily a volunteer staffed agency with 30 personnel. The roster includes a full-time Fire Chief and Deputy Chief, two volunteer captains and one volunteer lieutenant, 17 part-time and six volunteer personnel. There are also six personnel with dual status as paid-per-call and part-time firefighters. The station is staffed around-the-clock with two part-time personnel to improve response capability. As this report was being completed, the department was planning to add a full-time firefighter during weekdays to further strengthen daytime staffing.

During the period from 2013 through 2017, the department has experienced a 47% increase in calls for service. Over the past two years, the department has struggled at times to fill in-station staffing positions while the paid-per-call and volunteer response during certain hours of the day has been inconsistent. There have also been an increasing number of incidences where insufficient personnel were available for a response and a mutual-aid company handled the call. There were 17 incidents in 2017 and 29 in 2018.

The department's operating budget for 2018 was \$873,551. Operating expenditures are supported by the City's 2.0% wage earner income tax, and the Waterville Township contract fee and EMS billing.

The Whitehouse Fire Department (WHFD) is a municipal-operated agency that provides fire protection and EMS to the Village of Whitehouse, approximately one-half of Waterville Township, and approximately 70% of Swanton Township. WHFD is a combination staffed organization with a current roster of 53 personnel. The department is led by a full-time Fire Chief and Deputy Chief, volunteer Assistant Chief, one full-time and two volunteer captains, and two full-time and two volunteer lieutenants. There are six full-time, 19 part-time and 18 volunteer firefighters. The volunteer personnel are paid-per-call.

WHFD houses and staffs Life Squad 9, which is part of the Lucas County EMS system. There

are nine full-time personnel who are employees of WHFD, but their funding comes from the Lucas County Life Squad program. Life Squad 9's primary responsibility is to provide advanced life support (paramedic) care and patient transport to the southwestern portion of Lucas County and other surrounding areas as determined by the county life squad dispatcher. Life Squad 9 may respond on fire incidents, but personnel are not permitted to engage in structural firefighting activities.

Over the past five years, the department has experienced a 61% increase in calls for service. The fire responses have remained somewhat steady with some fluctuation, while the EMS responses have seen a significant increase.

The department's operating budget for 2018 was \$1.6 million. Operating expenditures are supported by the Village's 1.5% wage earner income tax, the Waterville Township, Swanton Township and Lucas County contract fees, and EMS billing.

For the purposes of the feasibility study, the service area of the proposed fire and EMS district included the City of Waterville, Waterville Township, and the Village of Whitehouse. Additional areas can be added to the district at a later time if desired and the joint fire and EMS district can continue to provide services to the current Swanton Township area served via contractual agreement.

Several options were reviewed regarding the creation of the joint fire and EMS district. An organizational structure was created by combining both WFD and WHFD into one agency with a two-station configuration to service the area. Two budget scenarios were developed, both designed to improve in-station staffing and response reliability. Both scenarios featured a command staff that included a Fire Chief and Assistant Chief, plus support staff that included an administrative assistant and part-time fire inspector. Both scenarios assume all full-time, part-time, paid-per-call and volunteer personnel would become employees of the joint fire and EMS district.

Scenario A included five personnel on duty in-station around-the-clock at both fire stations. The Whitehouse station would have a full-time captain, two full-time firefighter/paramedics and two part-time firefighter/paramedics or emergency medical technicians (EMTs). This scenario would increase the current daily staffing by one and maintain the full-time personnel to staff Life Squad 9. The Waterville station would have a full-time captain and four part-time firefighters/paramedics or EMTs. This scenario would increase the current daily staffing by three. Paid-per-call and volunteer personnel would continue to be an integral part of the response force. The projected operating budget for this scenario, including debt service, was \$3,358,421.

Scenario B included the same staffing plan as Scenario A but added a full-time shift commander position, which would add three personnel to achieve around-the-clock coverage. The projected operating budget for this scenario, including debt service, was \$3,686,420.

An analysis was performed on potential revenue based on several tax levy scenarios along with projected income from ambulance billing and service contracts. These revenue scenarios were then analyzed versus the project operating cost of each staffing scenario. Included in the analysis was three-year projections with inflationary increases of operating expenses and accumulation of reserve funds.

After analysis, the assessment team determined that a joint fire and EMS district was feasible and could provide improved response reliability and improved response times. While creation of a joint fire and EMS district would not lower current expenditures, it would provide the citizens with improved response reliability and participating entities long-term financial stability and control over operations and expenditures.

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## **Introduction**

The Ohio Fire Chiefs' Association (OFCA), a professional association and consulting firm, was selected by the City of Waterville, Waterville Township, and the Village of Whitehouse to perform a feasibility study to determine if the formation of a joint fire and emergency medical services (EMS) district would be beneficial to their respective communities. To conduct the feasibility study, a review of the Waterville Fire Department's and Whitehouse Fire Department's operations and service areas was performed.

## **Waterville Fire Department**

The Waterville Fire Department (WFD) is located in the City of Waterville, which is located in southwestern Lucas County. The department provides fire protection and EMS to the City of Waterville and the eastern and northern portion of Waterville Township. The department has an automatic response plan with neighboring Monclova Township to the north. All combined, the department is providing service to a population of approximately 6,400 in 12 square miles.

## **Waterville Township**

Waterville Township is located in southwestern Lucas County. Monclova Township borders on the north while the Maumee River creates the entire eastern boundary of the Township. Providence Township borders Waterville Township on both the southwest and west, and Swanton Township abuts on the west and a small area on the northern boundary. Waterville Township has a population of 1,673 and is 14.40 square miles in area, excluding the municipalities of Whitehouse and Waterville.

WFD provides fire and EMS to approximately 50% of the Township through a written contractual agreement which was \$56,334 for 2018. Whitehouse Fire Department provides fire and EMS to the remaining area of the township through a written agreement at an annual cost of \$56,334. The contracts with Waterville and Whitehouse are similar and identify an annual amount or ½ of the revenue generated by the Township's existing 1.5 mill levy, whichever is greater.

Waterville Township currently has a 1.5 mill tax levy for fire and EMS. In 2018, this levy generated approximately \$112,668. The revenue generated is based on the 1986 collection rate.

## **City of Waterville**

The City of Waterville is located in southwestern Lucas County directly east of Whitehouse.

The City is situated along the western banks of Maumee River. Waterville has a population of 5,492 in an area of 4.88 square miles. The City is governed by a Council form of government that includes six council members and a professional city administrator, who is the Chief Executive Officer of the City.

The City is an older rural community mainly consisting of residential homes, churches and limited commercial occupancies. However, the City has experienced a steady population growth, with a robust median income per household of \$79,293. Primary roadways in the area include US Route 24 and State Route 64.

## **Funding**

As noted previously, WFD provides fire and EMS to approximately 50% of Waterville Township via a written contractual agreement. This is a five-year contract and has an annual escalating fee schedule. The contract fee with Waterville Township for 2018 was \$56,334 or ½ of the total year's collection from their fire & EMS tax levy, whichever is greater.

The City has a 2.0% wage earner income tax with up to a 1.5% credit for those residents working in and paying income tax to another municipality. The fire department's annual operating budget is developed from the City's general fund. The department's budget process includes estimating annual operational costs and updating the five-year capital fund. Capital items are included in the City's five-year capital fund. This five-year plan is a financial best practice that allows the city administration and city council to allocate funds to meet future identified capital items.

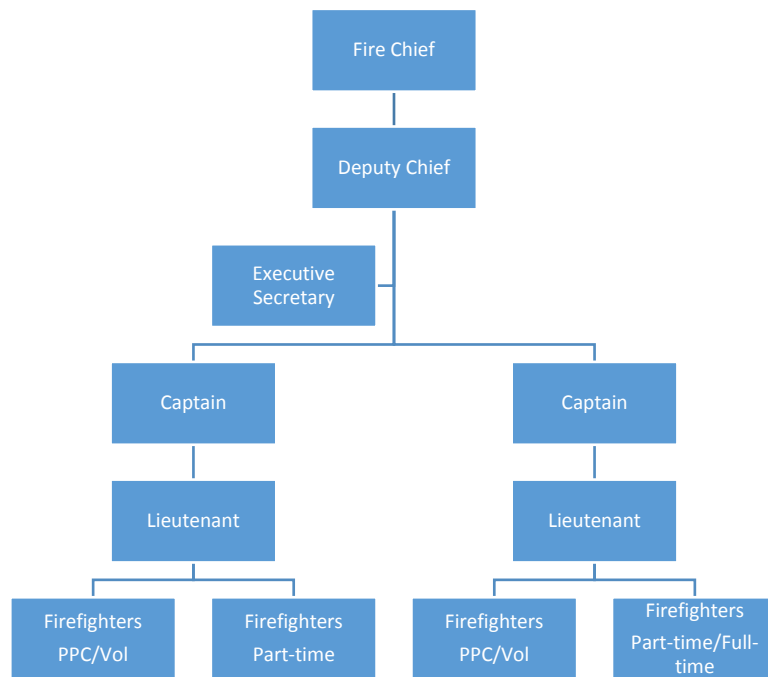
Designated fire department capital improvement amounts for 2019 through 2022 are listed as: 2019 - \$212,000; 2020 - \$427,900; 2021 - \$60,000; 2022 - \$17,000. Planned projects include: personal protective equipment (i.e., structural firefighting clothing) and two replacement cardiac monitors. Funds allocated in 2019 to be used for a future fire truck (pumper) purchase in 2020, and a washer and dryer for firefighting gear in 2022. The fire department's operating budget for 2018 was \$873,551. The cost of personnel was \$646,947 or 74% of the total budget. Debt service on a fire truck was retired in 2018.

The department also bills for EMS responses. The billing policy has a flat fee for non-residents if the department responds to an incident without transport. There are established billing fees for patient transport. The city office staff handles the billing for the department. All contractual dollars and EMS billing receipts are deposited in the City's general fund. Annual revenue has averaged \$70,000 over the past three years.

## **Staffing**

The department operates primarily as a volunteer organization with a current roster of 30

personnel. The roster includes a full-time Fire Chief and Deputy Chief, two volunteer captains and one volunteer lieutenant, 17 part-time and six volunteer personnel. There are also six personnel with dual status as paid-per-call (PPC) and part-time firefighters. The department shares an executive secretary with the public works department. The Fire Chief works a standard 40-hour work week. The Deputy Chief works a modified 40-hour work week consisting of 10-hour days, Tuesday through Friday. The Fire Chief designates individuals to oversee the department's maintenance, equipment, and training programs. Normally, these officers will report to the Deputy Chief on the status and needs of their respective programs. It was noted that a safety officer will be designated at operational scenes. Figure 1 depicts the current organizational structure of the department.



**Figure 1**

The majority of volunteer fire departments throughout the county have experienced difficulty in meeting response demands around-the-clock. WFD is no exception to this dilemma, especially as service demands have increased. As a means to strengthen response capability, Waterville has bolstered their staffing by creating two part-time firefighter positions on station around-the-clock as a supplement to the volunteer work force. Part-time schedules are organized into two 12-hour shifts per day. All part-time personnel are required to schedule one 12-hour shift per month. They may work more than one shift and may work two back-to-back 12-hour shifts. Part-time personnel are limited to 35 hours per week. At the time this report was being completed, the department was planning to add a full-time firefighter to bolster daytime staffing. This position is tentatively planned to work an eight-hour shift Monday through Friday.



Pay for part-time personnel ranges from \$13.25 to \$15.45 depending on the level of emergency medical technician (EMT) certification. PPC personnel receive \$15.45 per hour for an emergency response and \$10.30 per hour for training sessions.

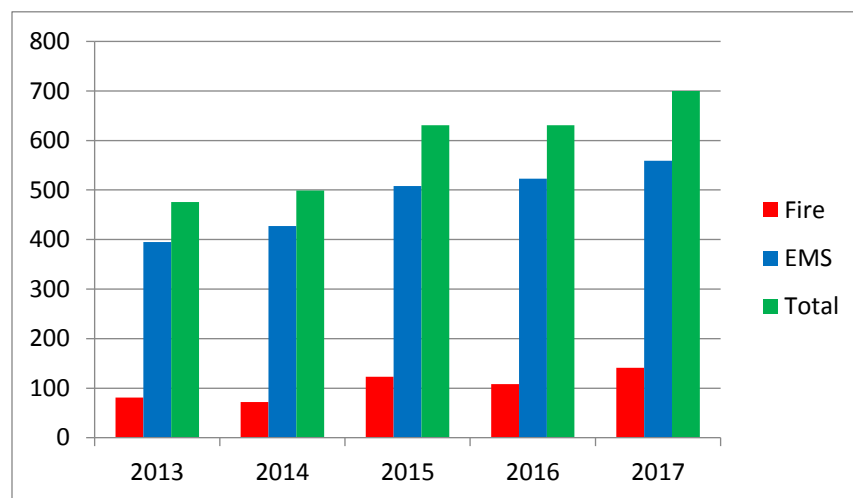
## Hiring

The hiring process consists of the applicant completing a written application and submitting it to the Fire Chief for consideration. The next step is an interview with the Fire Chief and then completion of a background check. The application is then forwarded to the Municipal Administrator who completes the final hiring process, which includes the successful completion of a medical and physical evaluation.

Individuals hired receive a temporary appointment and must successfully complete a one-year probationary period. During the probationary period, the new firefighter must successfully complete the department's orientation program that includes specific aspects of the department's operations. New personnel are assigned a mentor who will document the progress of the individual during their probationary period.

## Service Demands

Over the past several years, the department has experienced an increase in call volume. In 2013, the department responded to 476 calls for service. In 2017, that number had increased to 700, which is a 47% increase in service demand. During the five-year period examined, fire responses increased 74% while EMS responses have increased 42%. The department's calls for service over the past five years are displayed graphically in Figure 2.



*Figure 2*

The department's calls for service for 2013 through 2017 are displayed by response area in Figure 3.

	Waterville	Waterville Twp.	Mutual-aid
2017	654	19	24
2016	577	32	22
2015	556	47	27
2014	438	46	12
2013	449	24	3

*Figure 3*

The department responds on any call for EMS with two personnel. If the Lucas County Life Squad is dispatched to a medical call within Waterville’s response area, Waterville will respond an EMS unit and provide support as needed. The City charges a response fee of \$100 to non-residents for any EMS non-transport response. It was noted the department provides "standby" ambulance service on a rotating basis with Whitehouse for home football games and Waterville's community festival.

Any fire or EMS incident results in all department personnel being paged for the response. An EMS response must have two or more members assembled before the ambulance can respond to the scene. Fire responses must have three or more members assembled before a fire unit can respond to the scene. During week days, the Deputy Chief will fill a crew position for response if needed, if he is available.

Over the past two years, the department has struggled at times to fill in-station staffing positions. There have also been incidences where the turnout by the PPC force has been limited or they have been unable to assemble a crew. In 2017, there were 17 incidences where insufficient personnel were available for a response and a mutual-aid company handled the call. In 2018, the number of incidences where insufficient personnel were available for a response increased to 29. PPC response after midnight has been inconsistent and Saturday's day hours have been identified as a difficult time for PPC personnel availability, resulting in delayed responses.

The department's response data from 2017 was analyzed. Specifically, the length of time required to place a unit en route (wheels rolling) to a call or "turnout time" was reviewed. Turnout time in this evaluation measured from the time personnel were "toned out" or notified of an emergency response to the time the first unit is recorded en route to the call. The table in Figure 4 shows the department turnout times in 2017.

Turnout Time	Responses	Percentage
<b>0-5 minutes</b>	584	83%
<b>6-8 minutes</b>	72	10%
<b>9-10 minutes</b>	18	3%
<b>11+ minutes</b>	22	7%

*Figure 4*

The Insurance Services Office’s (ISO) 2017 analysis of department personnel available for response to structure fires was set at 1.52 on-duty personnel and an average of 6.00 on-call personnel responding on first alarms. This enabled the department to earn 5.23 points out of a possible 15, (Item 571 "Credit for Company Personnel"), which is 34.87% of the anticipated staffing for first alarm assignments. See more ISO information on page 8.

The department has developed standard operating procedures (SOPs) for the different types of incidents they could encounter, which identify actions and guidance for specific emergency scene functions and other important issues such as apparatus staffing, response and incident management. Safety related issues are also covered including accountability, Mayday procedures, and lost or downed firefighters. The department has implemented an extensive set of EMS protocols designed to guide and direct emergency medical personnel in their performance, duties and educational fundamentals. In addition, general guidelines addressing behavior, uniforms, public relations, apparatus safety, Health Information Portability and Accountability Act (HIPAA) information guidelines and Critical Incident Stress Debriefing (CISD) team purposes are addressed.

There are adopted job descriptions for the Fire Chief, Deputy Chief, PPC fire captain, PPC fire lieutenant, and PPC and full-time firefighter/paramedic. The job descriptions identify essential functions of the position, expectations of knowledge and abilities, qualifications, responsibilities, and immediate supervisor. The City has implemented a Personnel Policy Manual designed to promote morale and foster good working relationships in an ethical and legal manner.

Former Fire Chief Wambo indicated SOPs and general policies are routinely reviewed and updated using Lexipol™ software management for comprehensive development and related training concepts. Attempts are made to standardize procedures and training methods amongst area fire department agencies. The value of implementing as many common standards between departments reduces the potential for conflicting orders, assures smoother operational activity and strengthens firefighter safety.

## **Fire Prevention and Public Education**

The Deputy Chief routinely coordinates inspections in the City and the Township's response area which is covered by WFD. This has become a substantial activity on the department's behalf. This activity was also noted in their ISO review in 2017 resulting in earning an additional 4.71 credit points under the public protection classification survey. This reinforces the importance of the local fire agency taking a proactive approach on public inspections to reduce risk hazards. The department currently has two certified fire safety inspectors. In 2015, the department performed 203 inspections, 392 inspections in 2016, and 404 inspections in 2017. If issues arise from inspections the Chief will follow-up to address any items under dispute. Inspection records are maintained and filed by the department's executive secretary. Department inspectors follow the Ohio Fire Code or local code that the City has adopted.

The department also has an active fire prevention and education effort. For example, public fire safety educational programs are offered on CPR and fire extinguisher use. Fire station tours are conducted as requested and requests for smoke detectors are coordinated with the American Red Cross. The use of Springfield Township's fire safety and smoke trailer is coordinated once a year in school programs. Requests for public educational programs are coordinated through the Deputy Chief. In 2015, the department provided 16 fire safety programs reaching 152 persons, 14 programs reaching 235 persons in 2016 and 16 programs reaching 460 persons in 2017.

The civilian casualty statistics in their response area are excellent. Over the past three years, they have not recorded any civilian injuries or fatalities as a result of exposure to fire or injuries received while attempting to escape from a fire. During the same period of time, one firefighter injury was reported.

The department considers their working relationship with the community zoning department to be good as well as their interaction with the Lucas County Building Department. The Fire Chief conducts plan reviews and coordinates his actions with the County Building Department.

The Fire Chief is responsible for fire investigations. If assistance is needed or in his absence, the Deputy Chief will assist. The State Fire Marshal's office is requested for assistance with any major fire investigation. Working relations with both the Waterville Police Department and Lucas County Sheriff's Office is considered good. The same was noted for incidents on state routes with the Ohio State Highway Patrol.

## **Risk Assessment**

In Waterville, the department faces typical occupancies normally found in a town of this size. The City has a small downtown area which contains several multi-story buildings and various small commercial occupancies. These properties individually would pose a moderate risk. However, with the age of the buildings and the features of what is classified as "ordinary

construction” methods, any fire gaining headway in one of these buildings could endanger numerous adjacent structures.

Several significant risk properties and one maximum risk property were identified within the department’s response area, including four nursing care facilities. Heartland of Waterville and Heritage of Waterville are both skilled nursing facilities. Browning Masonic Community Assisted Living is an independent and assisted living facility. Story Point is an independent and assisted living and memory care facility. There is also a Johns-Manville Plant in Waterville Township. There is one school in the City; Waterville Primary School.

The Maumee River runs along the eastern and southern borders of the City. The river is a widely popular recreational destination and presents water rescue challenges.

The department has recognized the seriousness of these hazards and has developed preplans to address many of the concerns. Preplans provide responding personnel with critical information concerning a facility or site during an emergency response. Preplans are also used as a training tool to familiarize personnel with the facility and develop deployment strategies if an incident occurs.

### **ISO Classification**

ISO is the leading supplier of statistical, underwriting, and actuarial information for the property and casualty insurance industry. ISO conducts field evaluations in an effort to rate communities and their relative ability to provide fire protection and mitigate fire risk. This evaluation allows ISO to determine and publish the Public Protection Classification. The Public Protection Classification is based on a scale of 1 through 10, with 1 representing an exemplary fire suppression program and 10 indicating that the area’s fire suppression program does not meet ISO’s minimum criteria. The Public Protection Classification rating for the City of Waterville and their respective service area substantially improved to 03/3X.

How the Public Protection Classification for each community affects business and homeowners can be somewhat complicated because each insurance underwriter is free to utilize the information as they deem appropriate. Most underwriters in Ohio utilize what is called in the industry, the “suburban rule.” What this means is that businesses and residents in a community who are located more than 1,000 feet from a fire hydrant but not over five road miles from the fire station receive a rating between 8 and 9. Those fewer than 1,000 feet may receive a 3 classification. The residents and businesses in Waterville carry a Public Protection Classification of 3.

Two key aspects of the final classification are based on a dependable water supply and the efficient and travel distance of the servicing fire department. When the ISO field evaluation is conducted on communities, the overall water system including pumping capacity, storage

quantity, distribution system and system maintenance, carries a weight of 40% of the total evaluation. The fire department rating is 50%. The third component of the formal evaluation carries a weight of 10% on how well a community receives and dispatches fire alarms. An additional factor now evaluated is the Community Risk Reduction section in which fire prevention, fire safety education and fire investigation are evaluated. The inclusion of this portion provides recognition for those communities that employ effective fire prevention practices and allows for extra points in the grading process.

The City has a modern water supply system and purchases water from the City of Bowling Green. The City earned 38.05 points out of 40 in the water supply category of their ISO review. Points gained were 95.13% of those available with minimal deficiencies noted.

## **Training**

The department has two-hour training sessions scheduled every Tuesday evening. These training sessions are repeated on Wednesday mornings. Training on the third Tuesday is EMS continuing education classes required to maintain EMT certification and are conducted by an EMS instructor from St. Vincent-Mercy Medical Center. This class is not repeated Wednesday morning. All fire training classes are held under the auspices of Four County Career Center and EMS continuing education certification is coordinated through St. Vincent-Mercy Medical Center. Fire and EMS training schedules are posted well in advance of all sessions. The department's medical director will usually hold one or two in-service training sessions each year. Electronic records are maintained on individuals that documents dates attended, subject matter, and instructor. The training program is managed by the Fire Chief.

Full-time personnel and part-time personnel attending required courses for certification must pay their own expenses and seek reimbursement from the City upon successfully completing the training. PPC personnel have their training classes paid for and they also receive compensation for attendance. Personnel wishing to attend specialized courses must have the approval of the Fire Chief. All part-time personnel are required to have Firefighter I and EMT certification at the time of hire. PPC personnel have up to one year from the date of hire to obtain certification. Please see Appendix A for a complete description of training and certification requirements for the State of Ohio.

## **Fire Station Facility**

The Waterville Fire Department has one station located at 751 Waterville-Monclova Road. The handicap accessible facility was constructed in 2000 and features brick and masonry block exterior walls and a pitched metal roof. It contains approximately 15,000 square feet of space; a 9,300 square foot apparatus and vehicle bay area and 6,000 square feet of space for administrative offices, training area and living quarters. The station is situated on an L-shaped parcel of land, faces west towards Waterville-Monclova Road and has sufficient adjacent land

owned by the City that would enable the facility to be easily expanded to meet future needs. The front of the building sets approximately 90 feet from the roadway, with access from a full-width concrete pad. Both the interior and exterior sides of the bay doors are protected by bollards.

There are five bays facing the front of the station and two bays at the rear of the station. The rear bays serve as interior storage areas and other functional needs. Two of the bays may be utilized as drive-through bays if no units are occupying the rear bays. All bays are approximately 45 ft. x 14 ft. wide with the exception of the southwest and southeast bays, which are approximately 11 ft. wide. The overhead doors are 14 ft. x 14 ft., with emergency releases enabling manual operation in the event of a mechanical failure. There are no emergency indicators installed on bay doors that would warn a door is not fully raised. There is an automatic exhaust system in the apparatus bays that activates when sensors identify the presence of carbon monoxide.



The remaining portion of the facility consists of administrative offices, dormitory, restrooms with lockers and showers, storage room, dispatch/office area, kitchen, physical fitness space and training room. The entire structure is fully protected by a fire sprinkler system with an exterior fire department connection (FDC) and activation alarm located on the east wall. The facility has a 128 kW Kohler diesel-fueled generator that is capable of supplying the entire building in the event of power failure.

There is a decontamination area immediately off the north bay wall that includes a quick pull shower head, a dual eye wash basin and floor drain for containment runoff. There is no designated area to dispose of contaminated items. If circumstances involve biohazards, it is department policy to discard such items at St. Luke's Hospital in Maumee. The adjacent room off the north bay wall contains a standard washer and dryer and utility sink. The south bay wall has cleaning equipment hanging on the wall, related supplies, and the spare fire hose.

There is a mezzanine installed over half of the rear bay area for the storage of supplies, equipment and department records. The mezzanine area also contains the exhaust system for the bay area. The area immediately under the mezzanine contains a storage cabinet for flammable

products, work bench, the department's breathing air compressor, two-cylinder containment fill station, and cascade cylinder fill assembly. All cylinders are properly secured with safety collar connectors. It was noted there was no make-up air piping to draw exterior air for the compressor, thus air is drawn in from the bay floor. A hot-water floor heat system is used effectively in the bay.

The bays were clean, floors safety marked, and equipment well-organized with safety in mind as well as ease of use. The bay floor has drains for all apparatus locations that drain to the exterior of the building through an oil interceptor located on the front west side of the building.



*Bay Area*



*Mezzanine Storage Area*

The administrative and living space in the station is well-designed, providing ample individual offices for the Fire Chief, Deputy Chief, and executive secretary, and an officers' work area. There is ample, well-designed male and female restrooms with showers and sufficient lockers for personnel. There is a secured storage space for EMS supplies including lock cabinets for medical supplies and reserve oxygen cylinders. A training room is located in the northwest corner that also doubles as a public meeting room with an exterior entry provided.



*Training Room*



*Dayroom with Dividers*

The second floor of the administrative section consist of an L-shaped room with physical fitness equipment, upholstered furniture and TV for on-duty personnel and a portable walled-off section for two beds and a common restroom. The area is protected by a single station smoke alarm and



sprinklers. The administrative area is heated and cooled by forced-air furnaces which are considered in good condition. In addition to the standby generator, the station's radio equipment, phone system and computers are backed up with battery uninterruptible power source (UPS) equipment.

The building is normally locked and a phone is located in the entrance foyer that would enable a person to either summon personnel from within the station or talk with the dispatch center. All personnel have individual access codes they use to make entry into the building using an electronic key pad.

## Apparatus & Equipment

An overall general impression of the fleet is that it is well-maintained and is more than appropriate in size to meet the department's service needs. The assessment team reviewed the maintenance records and inventories for each piece of apparatus and found them to be in order. All fire apparatus is equipped to National Fire Protection Association (NFPA) and ISO standards. The department's apparatus fleet consists of two engines (sometimes referred to as pumpers), two medic units (EMS transport vehicles), one aerial tower, two boats, and two staff vehicles. The following is a brief description of each piece of apparatus and equipment.



*Engine 77* is a 1998 Pierce Saber pumper with a 1,500 GPM pump and carries 1,000 gallons of water. This vehicle is equipped with the necessary hose and loose equipment as required by NFPA 1901: *Standard on Automotive Fire Apparatus*. This vehicle is equipped with an on-board foam system capable of applying Class A or Class B foam. This is the department's newest engine and carries battery-powered rescue tools

and other equipment for auto extrication and other rescue situations. The vehicle has 21,488 miles and is in fair condition.



*Engine 78* is a 1987 Pierce Arrow pumper with a 1,500 GPM pump and carries 750 gallons of water. It carries the equipment required by NFPA 1901. This unit carries the department's hazmat and Rapid Intervention Team (RIT) equipment. The vehicle has 20,251 miles and is in fair condition.



*Tower 77* is a 2003 Pierce Dash 100 ft. aerial tower with a 2,000 GPM pump and carries 300 gallons of water. It carries the equipment required by NFPA 1901. The unit has 23,215 miles and is in good condition.



*Utility 78* is a 2009 PL Custom Type III modular ambulance on a Ford 450 chassis. This unit is used as a utility vehicle and no longer used for EMS response. The unit has 52,162 miles and is in fair condition.



*Medic 78* is a 2000 Wheeled Coach Type III modular ambulance on a Ford chassis. The unit is configured and equipped to deliver ALS care. The unit has 45,151 miles and is in fair condition.



*Medic 77* is a 2018 Braun Type I modular ambulance on a Ford 450 super duty 4-wheel drive chassis. The unit is configured and equipped to deliver ALS care. The unit is in new condition and has 1,446 miles.



*Boat 77* is a 2015 Rescue One Connect Boats with jet drive that permits shallow water operations. It features a depth finder and is equipped for night time operations. The boat is well-maintained and supplied with the appropriate safety devices.



*Boat 78* is a 14 ft. Starcraft with 25-hp Mercury outboard motor. The boat is well-maintained and supplied with appropriate safety devices.



*Utility 77* is a 2011 Dodge 2500 Ram pick-up truck. The unit has 66,838 miles and is in fair condition.



*Chief 78* is a 2015 Ford Explorer and used as a Chief's vehicle. The unit has 101,080 miles and is in good condition.



*Utility Truck* is a 2004 Dodge 2500 Ram pick-up truck. The unit has 62,230 miles and is in poor condition.

### **Equipment Maintenance & Testing and Self-contained Breathing Apparatus**

The department has 18 Scott 45-minute, 4,500 psi self-contained breathing apparatus (SCBA) units. The entire inventory of SCBA have been in service for five years and are in generally good condition. Annual bench testing is conducted by Finley Fire Equipment of McConnellsville, OH. There are spare cylinders for each of the units, which are carried on the apparatus. ABC Fire Protection of North Royalton, OH conducts the hydrostatic testing of these cylinders. The units are in good condition.

Each member is fit-tested for facepieces annually by department personnel utilizing county-owned equipment. Personnel are issued individual facepieces and extra facepieces are stored on each apparatus. All SCBA flow test and facepiece testing records are maintained appropriately.

The department has a 4,500 psi CompAir breathing air compressor system and cascade air-filling system. Breathing Air Systems of Reynoldsburg, OH, conducts regular compressor maintenance. The maintenance includes air quality testing which is conducted three times a year. The air quality testing is in accordance to NFPA 1989: *Standard of Breathing Air Quality for Emergency Services Respiratory Protection*. These records are appropriately recorded and maintained.

Hose testing is conducted by the Waterway Company in accordance with NFPA Standard 1962: *Standard on the Inspection, Care, and Use of Fire Hose, Couplings, and Nozzles and Service Testing of Fire Hose*. It was learned the department has removed numerous sections of fire hose from service due to age and test failure. The City has increased the capital improvement budget amount for 2019 to reflect the purchase of additional replacement hose. Hose is dried through the use of a hose dryer. Required records were reviewed and found to be in good order.

All ground ladders are inspected annually in accordance with NFPA 1932: *Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders* by Ohio Cat of Broadview Heights, OH. Records were reviewed and properly documented. The department's aerial tower was tested in accordance with NFPA 1911: *Standard for the*

*Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles.* The 2017 test noted required maintenance, rust and scaling between the vehicle's frame rails and other functional issues that required rework and immediate repairs. The required repairs were made and the unit was certified.

Annual pump testing is conducted by the department in accordance with NFPA standards. Testing documentation is maintained and appeared to be in proper order. ISO, NFPA and pump manufacturers recommend or require annual pump testing of all in-service fire department pumpers. Routine maintenance is also performed on the department's portable pump, power saws and fans as well as portable generators.

The department's facility emergency generator is maintained by Buckeye Power Sales of Toledo, OH. This includes routine inspections, preventive maintenance and load testing. Records are appropriately maintained.

### **Personal Protective Equipment (PPE)**

The majority of the department's structural firefighting PPE is manufactured by Innotex (PPE is sometimes referred to as turnout gear). In general, the gear is in fair to good condition, but is approaching its useful service life. It is scheduled to be replaced next year with grant funds from a pipeline company installing transmission lines through the area. The PPE is stored in open metal racks located on the bay floor between the two pumpers, which exposes the PPE to the accumulation of exhaust fumes and particulates generated when vehicles are started in the station. The PPE is inspected by a third party who also makes any necessary repairs. PPE found in need of laundering is taken to the Whitehouse fire station and laundered in their washer/extractor unit. Certified American National Standards Institute (ANSI) reflective vests for highway wear are provided for each seat position on apparatus.

### **Communications**

WFD is a member of and is dispatched by the Consolidated Fire Dispatch System, which is operated by neighboring Springfield Township. The system is independent of the Lucas County system, but has interoperability with Lucas County Dispatch and operates from the same building in downtown Toledo. The Consolidated Dispatch System serves Springfield Township, Monclova Township, Richfield Township, Waterville and Whitehouse Fire Departments. WFD pays an annual fee for this service, which currently is \$16,786.

The Consolidated Dispatch System operates a fully integrated computer-aided dispatch (CAD) system. WFD operates on the county's 800 MHz trunked system, which features 16 channels for tactical operations and talk groups. However, the department is initially dispatched or notified using a UHF paging tone out that activates alert receivers in the fire station or pagers carried by personnel. The department exclusively uses Motorola radios which include Motorola 5000

portables that are approximately 4-years old. Department radios are maintained under contract by Bender Communications of Toledo, OH for service work.

All vehicles are equipped with mobile radios and portable radios. The Chief, Deputy Chief and the two PPC captains carry portable radios.

The agencies of the Consolidated Fire Dispatch System are in negotiations with the City of Toledo for dispatch services. This move is anticipated to provide a system with multiple dispatchers on duty at any given time, redundancy in equipment used and the reduction of the number of public safety answering points (PSAP) in the county.

## **Whitehouse Fire Department**

The Whitehouse Fire Department (WHFD) is located in the Village of Whitehouse, which is located in the southwestern portion of Lucas County. The department provides fire protection and EMS to the Village of Whitehouse, a portion of Waterville Township, and a portion of Swanton Township, all within Lucas County. All combined, the department is providing service to a population of approximately 8,000 in 25 square miles.

## **Waterville Township**

Waterville Township is located in southwestern Lucas County. Monclova Township borders on the north while the Maumee River creates the entire eastern boundary of the Township. Providence Township borders Waterville Township on both the southwest and west, and Swanton Township abuts on the west and a small area on the northern boundary. Waterville Township has a population of 1,673 and is 14.40 square miles in area, which excludes the municipalities of Whitehouse and Waterville. WHFD provides fire and EMS to approximately 50% of the Township through a written contractual agreement which is \$56,334 for 2018.

Waterville Township currently has a 1.5 mill tax levy for fire and EMS. In 2018, this levy generated approximately \$112,668.

## **Swanton Township**

Swanton Township is located in western Lucas County. Swanton Township borders Monclova Township on the east, Waterville Township on the southeast, Providence Township on the south, Spencer Township on the north and Swancreek Township (Fulton County) on the west. The Village of Swanton is located in the northeastern corner of Swancreek Township and has some incorporated area in Swanton Township. The Ohio Turnpike is an east-west interstate highway in the very northern part of the Township and a large portion of the Toledo Express Airport is located in northern part of the Township. The 180<sup>th</sup> Fighter Wing of the Air National Guard is

also located at the airport. The Oak Openings Metropark, which is part of the Metroparks Toledo system, is located between Whitehouse and Swanton and has over 5,000 acres of land and over 50 miles of bike trails. WHFD provides fire and EMS to approximately 70% of the Township through a written contractual agreement, which is \$70,640 for 2018.

Swanton Township has a 1.4 mill levy for fire and EMS. In 2018, this levy generated approximately \$92,566.

### **Village of Whitehouse**

The Village of Whitehouse is located in southwestern Lucas County directly west of Waterville. The Village is situated inside of Waterville Township and is bordered by Swanton and Providence Townships on the west. Whitehouse has a population of 4,730 and is 4.29 square miles in area. The Village is governed by a Mayor-Council form of government that includes six council members, the Mayor and a professional village administrator.

The Village is home to Anthony Wayne Local Schools. The high school, junior high, middle school and primary school are all located within the Village. Lial Catholic School is also located in the Village.

### **Funding**

As previously identified, the Village of Whitehouse provides services to the two townships via written contractual agreements. In addition, the Village receives significant funds from Lucas County to staff and operate one of the County life squads (this will be explained in detail under operations). Currently, the annual fees collected from those contracts total \$908,167, which provides a significant percentage of the funding necessary to operate the department on an annual basis. The annual contractual fees from each entity are as follows:

Waterville Township	\$56,334
Swanton Township	\$70,640
Lucas County	\$781,193

The Village has a 1.5% wage earner income tax. Revenues generated from the income tax are split 70% for operating expenses and 30% earmarked for capital improvements. The fire department's operating budget for 2018 was \$1.6 million.

The department also bills for EMS calls that result in the transportation of a patient to the hospital. Billing is handled by a third-party billing service, Medicount Management. Annual revenue from EMS billing has averaged \$60,130 over the past three years.

Debt service for capital purchases accounted for 6% of the total budgeted amount. Those include loan obligations for a fire truck purchase (Truck 85) and PPE. The department also has annual lease payments for office work stations (computers) and an office copy machine. In 2019, the department initiated a three-year lease to replace five and add two mobile data terminals (MDTs) for the department's apparatus. The table in Figure 5 shows the department's obligation for long-term debt service and short-term general office leases.

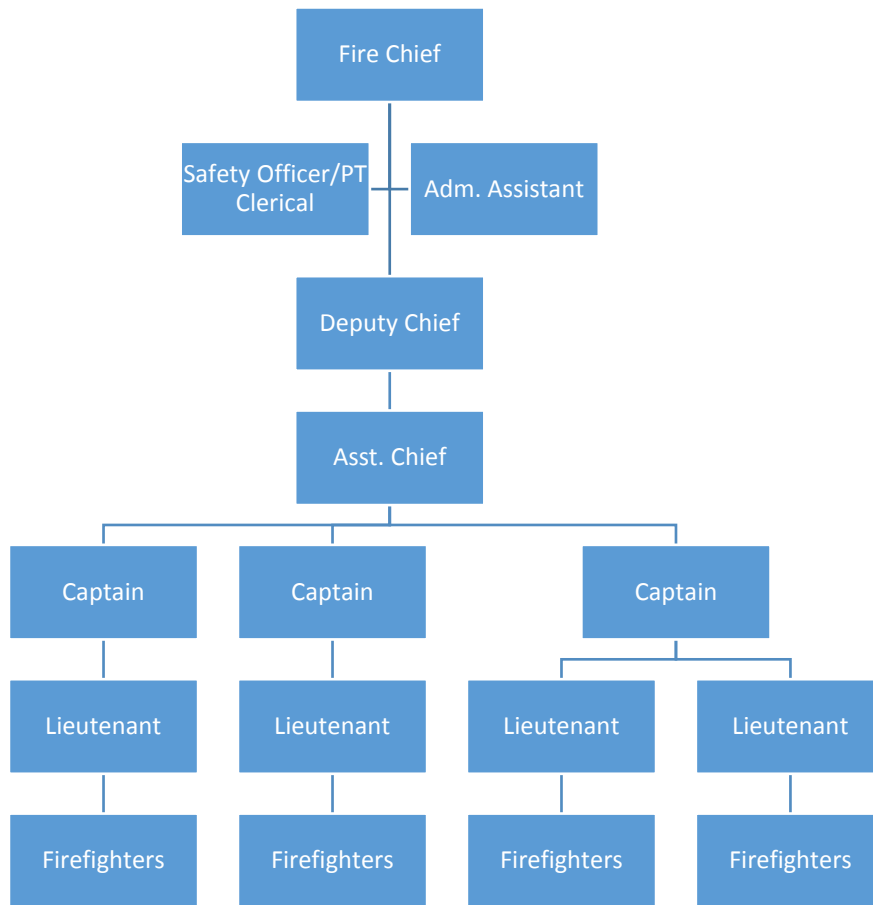
Item	Annual Payment	End Date
Fire Truck (Truck 85)	\$64,331	2025
FF Protective Clothing	\$20,850	2022
Office Workstations	\$1,400	2019
Office Copier	\$1,900	2019
Mobile Data Terminals	\$10,625; est	2022

*Figure 5*

## **Staffing**

The department is a combination staffed organization with a current roster of 53 personnel. There are 11 full-time, 19 part-time and 23 volunteer personnel. The volunteer personnel are actually PPC, in which they receive an hourly rate for each emergency response and training session attended. The department is led by a full-time Fire Chief, who is responsible for overseeing the entire operation. There is a full-time Deputy Chief, volunteer Assistant Chief, one full-time and two volunteer captains, and two full-time and two volunteer lieutenants. There are six full-time, 19 part-time and 18 volunteer firefighters. A chart depicting the current organization structure is depicted in Figure 6.





**Figure 6**

All full-time personnel are cross-trained as a Firefighter II (FF II) and Paramedic. Of the 20 part-time personnel, 19 are cross-trained; 11 as FF II/Paramedic; five as FF II/EMT; one as FF I/Paramedic; two as FF I/EMT; and one trained to the Volunteer Firefighter level. Many of the volunteer personnel also are cross-trained; five trained as FF II/Paramedic; four as FF II/EMT; one as FF II/Emergency Medical Responder (EMR); one as FF I/EMR; four as Volunteer FF/EMT; one as Volunteer FF/Paramedic; four as Volunteer FF and one holds EMT certification. Please see Appendix A for a complete description of training and certification requirements for the State of Ohio.

The department is somewhat unique in that they staff a life squad as part of a county-wide EMS system. There are nine full-time personnel who are employees of Whitehouse, but their funding comes from the Lucas County Life Squad program. One of the County's 11 life squads, Life Squad 9, is assigned to Whitehouse. Life Squad 9's primary responsibility is to provide ALS (paramedic) EMS care and patient transport to the southwestern portion of Lucas County and other surrounding areas as determined by the county life squad dispatcher. Life Squad 9 may respond on fire incidents, but personnel are not permitted to engage in structural firefighting

activities. The life squad unit will treat any injured victims and firefighters, and provide initial rehabilitation for personnel until other resources arrive.

The department's current staffing plan, which went into effect in February of 2018, has four personnel on-station around-the-clock. The full-time personnel work a three platoon, 24 hours on and 48 hours off shift schedule, with three personnel assigned to each shift. This work schedule is considered a 56-hour work week. The nine full-time personnel are assigned to one of the three 24-hour shifts; three on each shift. The fourth position is filled with part-time personnel. The part-time personnel are regularly scheduled to a 24-hour shift followed by 192 hours off (8 days). Part-time personnel are limited to 30 hours per week. Two of the three full-time personnel on-duty are dedicated to Life Squad 9. The other two personnel on-duty respond with Whitehouse equipment.

If a vacancy occurs due to sick leave, vacation or training, the department can fill the vacant position on the life squad with either full-time or part-time personnel, as long as they have been credentialed and approved by the County. Vacancies in the other two positions are filled with full-time personnel on overtime, part-time personnel, or by the Deputy Chief or Fire Chief.

When an alert is received for an emergency response, the personnel on station respond with the appropriate equipment. The volunteers receive the alert simultaneously and those available respond to the station, assemble a crew and respond with the appropriate equipment.

WHFD operates an EMS unit to handle basic life support (BLS) level calls and patient transports that do not require an ALS level unit. When sufficient EMS personnel are not available for in-station staffing, a volunteer EMT-B is identified. This person is paid \$5.00 per hour to be on call and must be in the Village and available to respond. There is no limit for on-call hours.

Pay for part-time personnel and PPC personnel has been standardized, with a range between \$13.55 and \$15.00 per hour, depending on their level of EMT certification. PPC personnel also receive pay for training sessions. Chief Hartbarger feels the volunteer response is still good, but the number of volunteers no longer approved to use SCBA has increased. This has been challenging at some incidents to manage resources properly. The concern is for future sustainability of sufficient resources for fire and EMS response as well as increasing operating costs.

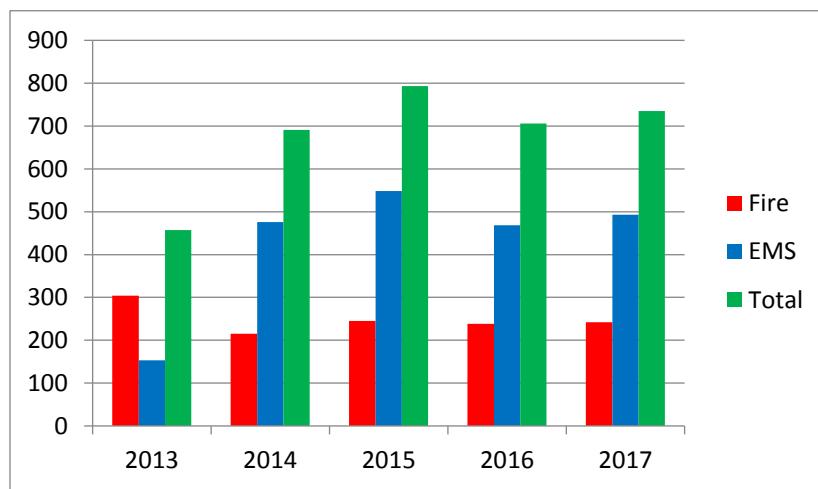
## **Hiring**

The hiring process consists of the applicant completing a written application and submitting it to the Fire Chief for consideration. The next step is a series of two interviews and then completion of a background check. The final hiring process includes the successful completion of a medical and physical evaluation.

Individuals hired receive a temporary appointment and must successfully complete a six-month probationary period. During the probationary period, the new firefighter must successfully complete the department's orientation program.

### Service Demands

Over the past 10 years, WHFD has experienced a very significant increase in demand for services. In 2008, the department responded to 255 calls for service. In 2017, that number had increased to 735, which is a 188% increase in demand. These figures are not entirely inclusive of calls made by Life Squad 9, although many of the EMS responses also had a response by the life squad. During the five-year period of 2013 through 2017, fire responses have remained somewhat steady with some fluctuation, while the EMS responses have seen a significant increase. The department's calls for service over the past five years are displayed graphically in Figure 7. Note that in 2017, Life Squad 9 responded to 645 calls for service. Those numbers are not reflected in the chart.



*Figure 7*

The department's calls for service for 2016 and 2017 are displayed by response area in Figure 8. Due to the limitations of the database previously used, specific response information for earlier years was not available.

	Whitehouse	Waterville Twp.	Swanton Twp.	Mutual-aid
2017	462	79	140	54
2016	405	83	161	57

*Figure 8*

As noted previously, when an alert is received for an emergency response, the personnel on station respond with the appropriate equipment. The volunteers receive the alert simultaneously and those available respond to the station, assemble a crew and respond with the appropriate equipment. The department has turnout response goals. The length of time to get a unit en route to the call is commonly referred to as “turnout time.” Turnout time is measured from the time personnel are “toned out” or notified for an emergency response to the time the first unit is en route to the call. Turnout time is a measurement normally used for personnel who are “in-station”. The department’s response goals are as follows: life squad turnout time in two minutes and volunteer response turnout time in five minutes. However, the response data available for review did not include the time units were en route to the call.

There are national publications that address response performance. One publication is NFPA 1720: *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments*. The standard outlines criteria that address functions and objectives of fire department emergency service delivery, response capabilities, and resources. Based on NFPA 1720 criteria, WHFD should meet the following response time objective: for 80% of all fire incidents, the agency should respond to the scene within 14 minutes with at least six personnel. Firefighters responding with mutual-aid companies are counted in this six-person objective.

This response objective begins when the firefighters are notified by the communication center of the emergency. Urban settings have a 9-minute response time standard, suburban communities are set at 10 minutes and the rural area benchmark is 14 minutes. Whitehouse is considered a rural community based on the Village’s and Township’s combined population density. Population density and other information are described in the response standard.

Figure 9 displays graphically the department’s response performance for all fire and EMS responses in the Village and within their defined response area in Waterville Township. Responses to Swanton Township or mutual-aid responses were not included. Meeting the benchmark for at least 70% of the responses is often considered the baseline or threshold measurement.

Element	Target	Percentage
Village Response Time	14:00	96%
Township Response Time	14:00	92%

**Figure 9**

ISO's 2017 analysis of department personnel available for response to structure fires was set at 1.87 on-duty personnel and an average of 10.66 on-call personnel responding on first alarms. This enabled the department to earn 6.82 points out of a possible 15, (Item 571 "Credit for

Company Personnel"), which is 46% of the anticipated staffing for first alarm assignments. See additional ISO information on page 25.

There are adopted job descriptions for the Fire Chief, Deputy Chief and PPC firefighter. Descriptions describe essential functions of the position, expectations of knowledge and abilities, qualifications, responsibilities, and immediate supervisor. The Village has a comprehensive Personnel Policy Manual that covers key areas such as conduct, discipline, leave management, sexual harassment and benefits.

WHFD has SOPs for fire and EMS operations, as well as specific SOPs for Life Squad 9. The department also has an administrative policy manual, but it is not as fully developed as desired by the fire department administration. In 2019, the department plans to implement Lexipol™ policy and procedure management. Lexipol™ is a fee-based subscription service that allows departments to update and keep policies and procedures current with software management. The provided policies and procedures are comprehensive although generic, but allows customization of the procedures to local conditions. The policies and procedures are normally accessed electronically but can be printed as needed.

### **Fire Prevention & Public Education**

WHFD has a solid fire prevention and inspection program, which is managed by Deputy Chief Francis. The department conducted 106 inspections in 2015, 131 in 2016 and 165 in 2017. Commercial properties are inspected annually and schools are inspected twice each school year. Foster home and residential inspections are conducted on a request basis. The Village has adopted the Ohio Fire Code and the department utilizes Emergency Reporting Software for their record keeping. The department enjoys a very good working relationship with the Lucas County Building Department.

Deputy Chief Francis and Lt. Dodson conduct preliminary investigations of all fires. If additional assistance is needed, the department requests support from the State Fire Marshal's Office. The department maintains excellent working relationships with the Lucas County Sheriff's Department and the Whitehouse Police Department. All record keeping is recorded in the department's database.

WHFD provides a focused fire safety public education effort, including CPR classes. There are formal activities provided to the schools during fire prevention month each October. Age-specific programs are provided to Grades 1 and 4, while Grades Kindergarten and 3 visit the fire station for a tour and safety message. The department also provides fire prevention programs to other community groups on a request basis. The department has a smoke detector give-away program that includes installation, if needed. The department has an annual open house and is active in local festivals. The CPR program is well-received in the community. The department

has trained an average of 172 people each year over the past three years. There are three certified infant car seat technicians on the department that perform 50 inspections for the public annually.

## **Risk Assessment**

The department has identified 129 “target hazards” within their response district that would create special challenges to control in a timely and efficient manner. The target hazards reviewed within the response area are normally beyond the customary risk encountered by fire departments and typically require a larger number of resources to be deployed than provided for residential and other common types of occupancies or situations. Target hazards could also include natural and man-made hazards such as railroads, interstates, underground pipelines, rivers, ponds, or any other element that may affect response of fire resources. Seventy of these identified targets were determined to be significant risk properties.

One maximum risk property was identified. Bittersweet Farms, located on Archbold-Whitehouse Road, creates retail products for sale in the community which are created by individuals with autism. There are four school buildings located in the response area, all part of the Anthony Wayne School District. They include the high school, junior high school, middle school and elementary school. Lial Catholic School is also located in the Village. Schools always pose a risk due their size and high number of students.

## **ISO Classification**

As described previously, ISO is the leading supplier of statistical, underwriting, and actuarial information for the property/casualty insurance industry. ISO conducts field evaluations in an effort to rate communities and their relative ability to provide fire protection and mitigate fire risk. The Public Protection Classification rating for the Village of Whitehouse and their respective service area is 03/3X. The most recent evaluation was May 2017.

Most underwriters in Ohio utilize what’s called in the industry, the “suburban rule.” Whitehouse’s split rating of 03/3X means is that businesses and residents in the township area who are located more than 1,000 feet from a fire hydrant, but not over five road miles from the fire station receive a rating of 3X, which formerly was a 9. The reason that the rating is generally not more favorable is due to the lack of a dependable water supply, which carries a weight of 50% of the total evaluation. Thus, most township areas do not have the benefit of a water system and as a result, a higher classification rating. The residents and businesses in Whitehouse have a Public Protection Classification of 3. This is in part due to the Village’s existing water distribution system.

## **Training**

Most of the fire and EMS training is delivered in-house under the direction of the training captain. The members of the department have training sessions in the evening of the second and fourth Wednesday of each month. Special training sessions, usually involving hands-on evolutions, are six to eight hours in length and are held quarterly.

The department conducts emergency vehicle operating training annually. All officers have completed National Incident Management System (NIMS) training and the department is starting Blue Card All Hazard Incident Management training. The department has 11 certified instructors on their roster. Please see Appendix A for further certification requirements of the State of Ohio.

## **Fire Station Facility**

WHFD has one station located at 10550 Waterville Street. The station was given a physical on-site review for the general condition, maintenance, size, efficiency, and staffing capability. Particular emphasis was placed on the ability of the station to support the mission of the department now, as well as that of a combined joint fire and EMS district.

It is an 11,375 square foot facility with six apparatus bays with 14 ft. x 14 ft. doors. Three of the bays are single back-in bays and three are two-deep. There is a rear overhead door that provides secondary access and versatility for daily operations. The building is not protected by a fire sprinkler system and some areas of the building have smoke detectors. There are no heat detectors in the apparatus room or carbon monoxide detectors in the living quarters. The station is equipped with a 50 kW diesel fuel-powered emergency generator.



PPE for the individual firefighter is stored in metal lockers located along the bay walls. The lockers provide a separated space for each firefighter, but the PPE is exposed to diesel emissions from apparatus. The facility does not have a diesel exhaust capture and removal system. When apparatus is started, the vehicle exhaust can have a harmful effect on PPE, small equipment, computer and electronic equipment throughout the station. Any personnel in the station would be exposed to airborne contaminants. Note: The department is scheduled to install a diesel exhaust capture and removal system in 2019.

Additional equipment and supplies are also stored in metal shelving along bay walls. EMS supplies are stored at this facility; however, the facility does not have a formal decontamination area. Contaminated items are disposed according to the EMS protocol. The department has a commercial grade turnout gear extractor and dryer to decontaminate and cleanse PPE.

There is a kitchen located adjacent to a large training room. The training room can double as a community meeting room with its own separate outside entrance. The kitchen has residential grade equipment and does not have a hood suppression system. On the east side of the building, an area was renovated into a living area to accommodate the Lucas County Life Squad personnel. There are four single dormitory rooms and one double-bunk room. There is a small dayroom and kitchen. The kitchen has a residential range with no suppression system. There are smoke detectors in the living area.

The building lacks adequate storage space which can expose equipment and PPE to the byproducts of diesel exhaust. Some living areas that are open to the apparatus room also are exposed to diesel exhaust. The facility lacks sufficient dormitory and office space for any long-term addition of on-duty personnel. There is minimal American with Disabilities Act (ADA) compliance and the air exchange and air movement within the building appears to be insufficient. Future expansion of this facility is questionable unless apparatus space is converted to living area.

## **Apparatus & Equipment**

WHFD operates two engines, one engine-water tender, one aerial ladder, one brush truck, two paramedic transport ambulances, and two administrative support vehicles.

An overall general impression of the fleet is that it is well-maintained and is more than appropriate in size to meet the department's service needs. The assessment team reviewed the maintenance records and inventories for each piece of apparatus and found them to be in order. All fire apparatus is equipped to NFPA and ISO standards. Below is a brief description of each piece of motorized apparatus:





*Truck 85* is a 2016 Pierce 107 ft. aerial ladder with a 1,500 GPM pump and carries 500 gallons of water. The unit has a 30-gallon Class “A” foam tank and pre-piped waterway for elevated master stream operations. The vehicle is equipped with the necessary equipment required by NFPA 1901. This vehicle is in excellent condition and has 15,624 miles.



*Engine 85* is a 2013 Sutphen rescue pumper with a 1,500 GPM pump and carries 1,000 gallons of water. The unit has a 30-gallon Class “A” and “B” foam tank. The vehicle is equipped with the necessary equipment required by NFPA 1901. It also carries hydraulic rescue tools for auto extrication and other rescue situations. This vehicle is in excellent

condition and has 5,682 miles.



*Engine 86* is a 1994 Sutphen pumper with a 1,500 GPM “top-mount” pump and carries 1,000 gallons of water. The vehicle is equipped with the necessary equipment required by NFPA 1901. This vehicle is in fair condition and has 11,976 miles.



*Engine Tanker 85* is a 2006 KME pumper-water tender on an International chassis. It has a 1,500 GPM pump and carries 1,250 gallons of water. The unit is equipped with a Class “A” foam system, 2,500-gallon portable water tank and is capable of off-loading water through three electrically-controlled chutes located on either side or the rear of

the unit. The unit is equipped with the necessary equipment required by NFPA 1901. This

vehicle is in good condition and has 8,362 miles.



*Brush 85* is a 1997 Ford F-250 4-wheel drive brush truck with a 250 GPM pump and carries 250 gallons of water. The unit is equipped with two 100 ft. reels of 1-inch hose and customized front-spray nozzles. This vehicle is in fair condition and has 34,854 miles.



*Medic 85* is a 2015 American Emergency Vehicle (AEV) medium-duty Type III modular ambulance on an International chassis. This unit is configured and equipped to deliver ALS level care and transport service, including a LIFEPAK 15 cardiac monitor/defibrillator and a patient power-load system. This vehicle is in excellent condition and has 44,467 miles.



*Medic 86* is a 2003 AEV medium-duty Type II modular ambulance on an International chassis. This unit is configured and equipped to deliver ALS care and transport service, including a LIFEPAK 15 cardiac monitor/defibrillator and a patient power-load system. This vehicle is in good condition and has 45,635 miles.



*Car 85* is a 2010 Chevrolet Silverado 1500 pick-up truck. This unit is assigned to the Fire Chief. The unit is in good condition and has 70,000 miles.



*Car 86* is a 2014 Ford F-150 pick-up truck. This unit is assigned to the Deputy Chief. The unit is in good condition and has 21,254 miles.

### **Equipment Maintenance & Self-Contained Breathing Apparatus**

Annual pump testing and subsequent repairs are performed annually on all in-service fire department pumpers by United Fire Apparatus of Cridersville, OH, following ISO, NFPA and pump manufacturers' standards. Pump test records were reviewed and found to be in order.

The department has 26 Scott XNG 7 SCBA. The air packs are 4,500 psi units with Pak-Tracker locator and blue tooth capability. The SCBAs have been in service for seven years and are generally in good condition. General maintenance is performed in-house. Finley Fire Equipment Company conducts the annual flow testing on each unit. There are spare cylinders available for each of the units, which are carried on the apparatus. ABCO Fire Protection of Toledo conducts the hydrostatic testing of the SCBA cylinders.

The department has a Mako breathing air compressor to refill air cylinders. The compressor is located at the rear of the fire station. It does not have an outside air intake due to the manufacturing facility located adjacent to the station and the potential for a contaminating the air. The compressor is maintained by Pneu-Matic Engineering of Whitehouse. The maintenance

also includes quarterly air quality testing. Air quality testing is in accordance with NFPA 1989: *Standard of Breathing Air Quality for Emergency Services Respiratory Protection*. These records are appropriately recorded and maintained.

Each member is fit-tested for facepieces annually by certified department personnel utilizing county-owned equipment. Personnel are issued individual facepieces except for contingent part-time personnel. Extra facepieces are stored on each apparatus. All SCBA flow test and facepiece testing records are maintained appropriately.

Hose testing is conducted annually by department personnel using fire hose testing equipment in accordance with NFPA 1962: *Standard on the Inspection, Care and Use of Fire Hose, Couplings, and Nozzles and Service Testing of Fire Hose*. ISO also requires the proper testing and maintenance of fire hose and documentation retained for their analyses when conducting a PPC survey. The fire hose inventory varies in age but all appeared to be in good condition.

The department has two Physio-Control LIFEPAK 15 heart monitors/defibrillators in service. These units were provided by and maintained by the County. The department also has two Physio-Control LIFEPAK 1000 automated external defibrillators (AEDs). The maintenance contract on these units is provided by the County.

### **Personal Protective Equipment**

The department issues structural PPE to all of their members. New Lion Apparel PPE was purchased for personnel in 2018. The PPE is cleaned in-house utilizing the department's extractor. The department is on a 10-year replacement cycle, although some PPE may be replaced every five years depending on usage and condition. Certified ANSI reflective vests for highway wear are provided for each seat position on apparatus.

### **Communications**

WHFD is a member of and is dispatched by the Consolidated Fire Dispatch system, which is operated by neighboring Springfield Township. The system is independent of the Lucas County system, but has interoperability with Lucas County Dispatch and operates from the same building in downtown Toledo. The Consolidated Dispatch System serves Springfield Township, Monclova Township, Richfield Township, Waterville and Whitehouse Fire Departments. WHFD pays an annual fee for this service, which currently is \$16,786. Life Squad 9 is dispatched by Lucas County, which has their own EMS dispatchers whom screen incoming 9-1-1 calls before dispatching the closest unit to the incident.

The fire department operates on the county's 800 MHz trunked system, which features 16

channels for tactical operations and talk groups. The department's existing radio equipment is at the end of its useful service life. The department is scheduled to receive nine new mobile and 43 portable radios in 2019 as part of a regional grant. All volunteers carry 800 MHz pagers.

As noted previously, agencies of Consolidated Fire Dispatch System are in negotiations with the City of Toledo for dispatch services. This move is anticipated to provide a system with multiple dispatchers on duty at any given time, redundancy in equipment used and the reduction of the number of public safety answering points (PSAP) in the county.

## **Creation of Fire and EMS District**

The creation of joint fire districts has gained in popularity across Ohio in the last two decades. Under Ohio law, specifically sections 505.371, 505.71 and 505.375 of the Ohio Revised Code, townships and municipal corporations may elect to create joint districts to deliver fire and ambulance services. There are several options available, including the creation of a joint fire district, joint ambulance district, or joint fire and ambulance (EMS) district.

The benefits of forming a joint district include: 1) creating an equal tax base among all residents within the district area, 2) participating response areas having equal representation in management oversight, and 3) in some cases, cost savings with economy of scale and reduction in duplication of resources.

WFD is experiencing staffing issues similar to situations faced by other agencies around the State. WHFD has expanded their on-station staffing, but have fewer volunteer firefighters certified for SCBA use and interior firefighting operations. Family obligations and some of the increased training requirements all affect each organization's ability to recruit and retain volunteer personnel. Overall, the time demands on the volunteer service are greater than ever, especially for providing EMS.

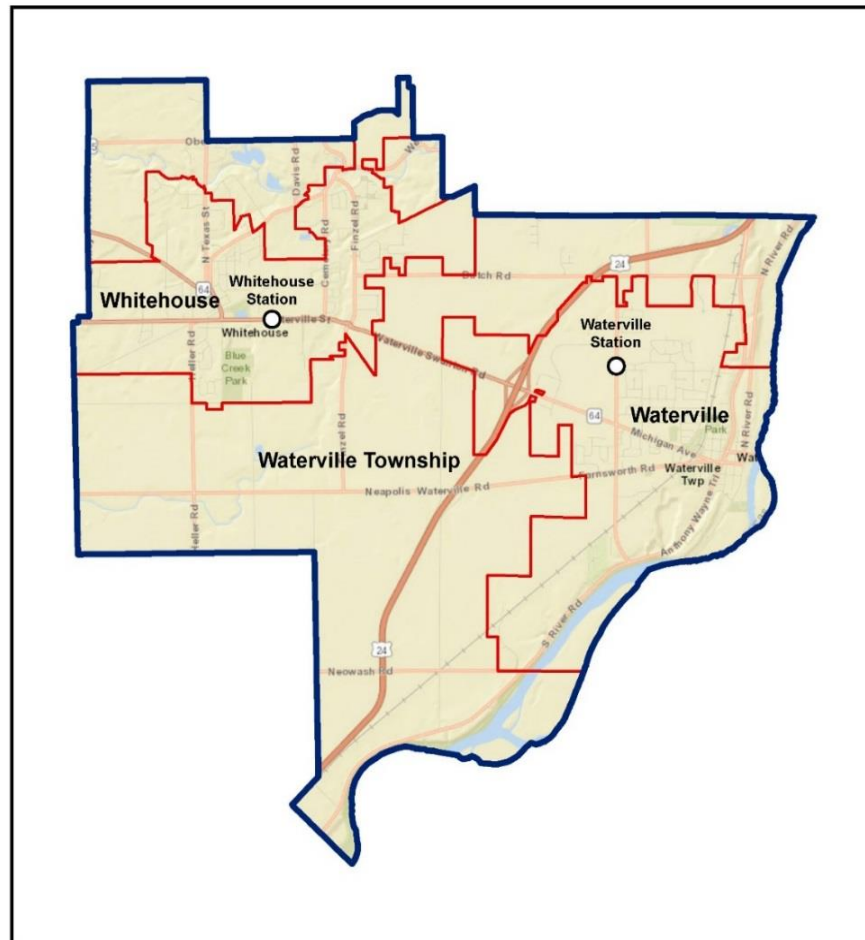
As stated earlier, WHFD employs full-time and part-time personnel to staff the station around-the-clock, in part due to the contractual agreement with Lucas County to staff Life Squad 9. This helps ensure that at least one crew is available to respond to calls. This has proven to be beneficial in improving the reliability of response and decreasing response times. WFD previously implemented a part-time staffing model but continues to experience difficulty assembling a crew together depending on time of day and day of the week. As a result, planning is underway to add a full-time firefighter position Monday through Friday in 2019.

Both communities are also concerned with long-term sustainability of fire and emergency services delivery, as well as the associated cost of operations. In an effort to determine if the concept of a joint district is feasible, a joint fire and EMS district will be created on paper to

allow department members and elected officials examine organizational structure, general operations, and the estimated cost of providing service delivery with this type of organization. This information can then be used to assist in making the final determination if a joint fire and EMS district is a viable option.

### Organizational Structure

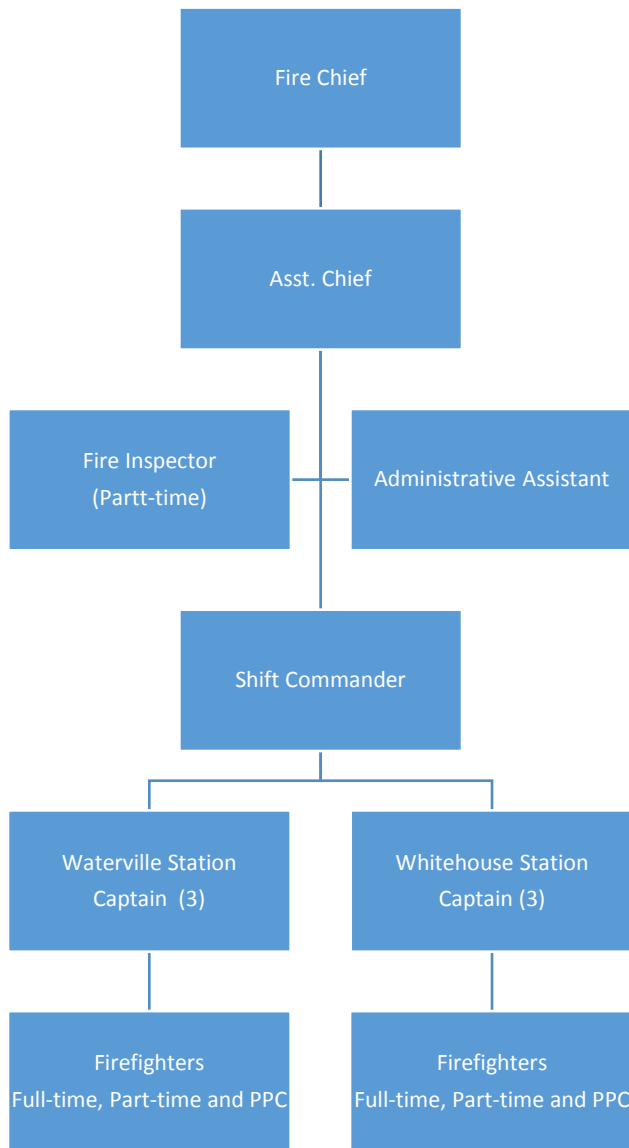
To create a joint fire and EMS district, the service area must first be defined. For this study, the proposed joint fire and EMS district service area includes the City of Waterville, the Village of Whitehouse and Waterville Township. Additional areas can be added to the district at a later time, if desired. The joint fire and EMS district can provide services to areas such as Swanton Township via contractual agreement. The name of this proposed joint fire and EMS district will be Southwest Lucas Joint Fire and EMS District (SLJFD). This was used for illustrative purposes only. Any name selected by the entities involved can be used. A map of the joint fire and EMS district is provided in Figure 10. The district boundary is outlined by a dark blue line.



*Figure 10*

The staffing needs of the joint fire and EMS district are important, as this will establish the staffing model desired and funds necessary to support the staffing model. The staffing model needs to meet the needs of the communities for the joint district concept to be successful. Scenarios were developed to address current staffing concerns. Ultimately, the final determination of the level of service desired rests with the citizens of the participating communities.

The members of the SLJFD district board will be required and have the authority to appoint the Fire Chief. The district board with input from the Fire Chief will determine the command staff necessary and establish staffing levels. A suggested organizational structure of the proposed joint fire and EMS district is depicted in Figure 11. The suggested organizational structure does not address current PPC or volunteer officer positions currently used by both Waterville and Whitehouse. It is not the OFCA's position that they are unnecessary. On the contrary; these positions could be very valuable to the joint fire and EMS district. However, that analysis will need to be completed by the new district's board and Fire Chief and how those positions will fit into the new agency's structure.



**Figure 11**

**Cost of Operation and Funding**

Development of a projected budget can be a useful tool to make an informed decision regarding the creation of a joint fire and EMS district. While the projected expenses are determined as accurately as possible, variable annual expenses are projected on the high side while projected revenues will be estimated conservatively. The current operating budgets of both departments provided a solid foundation from which to determine projected operating expenses for the joint fire and EMS district. In addition, the acquisition of grant funds is not included in preparation of the budgets. Grants are competitive and reliance on grant funds could create financial difficulty for a new organization.



## Assets

One of the first steps in making a fire and EMS district functional is to configure apparatus and equipment. Both WFD and WHFD are municipal-owned departments. The municipalities hold title to all of the apparatus and equipment as well as the fire station facilities and land. Normally, all apparatus, equipment and supplies currently owned and used by the two departments would be titled over to the joint fire and EMS district, including any apparatus loan or lease obligations.

WHFD has several loan obligations; the most significant are for a fire truck and PPE. The annual debt service for the fire truck is \$64,331 with an anticipated retirement in 2025. The annual debt service for the PPE is \$20,850 with an anticipated retirement in 2022. Both of these obligations, along with others for office related equipment will be included in the projected budget of the joint fire and EMS district. Whitehouse would need to verify with the institution that has loaned the funds that the title and loan transfer can be completed. Another option is for the municipalities to lease these items to the joint fire and EMS district. This could be a nominal lease annually for each piece of equipment.

In general, the fire station facilities could be handled in one of two ways. The buildings and land can be transferred to the joint fire and EMS district, or the fire district could lease the facilities from the municipalities. A lease arrangement may be the better option, at least initially. A nominal lease payment for use of the facility could be developed between the parties. A nominal lease payment was added to the projected operating budget. The advantage of transferring the buildings and land is common insurance coverage by the district. The lease and loan obligations would need to be addressed during the formation of the district.

Both departments have firemen's associations that are organized to support the efforts of the fire department. For example, these associations hold fund-raising events in the community. The funds are then used in a variety of ways to assist the volunteer departments, including purchasing equipment, scholarships and other support functions. All funds of the firemen's association remain the property of the firemen's association, and can be retained or disposed as they deem appropriate.

## Projected Budget and Revenue

After receiving input from both fire chiefs, the assessment team developed two budget scenarios for illustrative purposes, identified as Scenario A and B. There are numerous staffing scenarios that can be debated and discussed for the joint fire and EMS district. The two scenarios shown are designed to provide in-station staffing 24 hours each day at both fire stations. The staffing levels are configured to provide sufficient personnel to get an initial crew out the door for an emergency response. The staffing scenarios are based on five personnel in Whitehouse, which is the addition of one person to the existing staffing levels. The Waterville station will be increased from two to five personnel in-station around-the clock. Each station will have a captain as a

station officer. The scenarios are based on the assumption the contract with Lucas County will continue with SLJFD. Discussions with Lucas County EMS officials indicate that Life Squad 9 is stationed in Whitehouse due to its geographic location in the county. Operating Life Squad 9 from the Whitehouse station should result in a continuation of the contractual agreement.

Both scenarios feature the same management structure; a full-time Fire Chief and Assistant Chief. The Assistant Chief (or Deputy Chief if that title is preferred) would serve as second-in-command and would also be responsible for the district's fire prevention and inspection programs. In addition to fire prevention responsibilities, the Assistant Chief normally handles scheduling of part-time personnel, which often can be a time-consuming activity. A part-time fire inspector (15-hours per week) to assist with inspections is included in the staffing plan. A full-time administrative assistant will also be needed. One scenario (Scenario B) will include a shift commander position (which can be called a shift commander or Battalion Chief). This person will serve as the incident commander at emergency incidents and provide management consistency between both stations. This position can also fill staffing positions when needed, assist with administrative duties as needed, and could serve as the district's training officer. Note: the title of officer positions such as lieutenant or captain are illustrative; the joint fire and EMS district will need to determine what works best for the organization.

*The important point when reviewing these scenarios is that creation of the joint fire and EMS district is initially going to cost the communities more money to operate, because the staffing plan is trying to address the current staffing and response issues.*

The following assumptions were used in developing the projected budgets. Expenses were included for the district fiscal officer's salary and office operation. Estimated expenses were calculated to maintain current daily operations such as equipment maintenance and to defray equipment acquisition costs as well as dedicated funds for capital outlay. Salaries were estimated for management level full-time positions and take into consideration the responsibilities for a larger and more complex organization along with current pay scales:

Fire Chief \$82,000

Assistant Chief \$78,000

Shift Commander \$74,000

Captain \$70,000

Firefighter/Paramedic \$68,000

Firefighter/EMT \$60,000

Administrative Assistant \$46,000

Part-time & Paid-per-call \$16.00/hour

Health insurance cost computed @ \$16,500 per full-time employee

Paid-per-call wages \$150,000 (total)

**Scenario A** includes the following staffing plans.

Fire Chief, Assistant Chief, Administrative Assistant, Part-time Fire Inspector

Whitehouse Station

1 Captain (full-time)\*  
2 Firefighter/paramedic (full-time)  
2 Firefighter/EMT (part-time)\*\*  
Paid-per-call as needed

Waterville Station

1 Captain (full-time)\*  
4 Firefighter/EMT (part-time)\*\*  
Paid-per-call as needed  
\*Captain can also be paramedic certified  
\*\*Part-time firefighters can also be paramedic certified

This scenario is considered the minimal staffing levels to address on-going and future staffing issues and provide a level of safety for fire and EMS personnel. PPC personnel would continue to be an integral part of the response force for structure fires and other types of emergencies. This staffing plan would provide personnel in-station and the ability to provide a timely response to emergency incidents, especially EMS incidents and auto accidents, which are the most common types of incidents. This should also reduce the reliance on PPC response to minor incidents. This may help with future PPC personnel recruitment and retainment.

A quick response with two engines to a structure fire is very important and would allow the department to accomplish a quick knockdown on many fires, preventing them from escalating or keeping the fire in check until the paid-per-call force can respond. For both Whitehouse and Waterville stations, if the ambulance is committed to a call, there would still be three personnel on station to respond with an engine. This should provide more reliability and greatly reduce or eliminate the incidences where no crew is available to respond. Ambulance calls that often occur within minutes of each other could be handled with five personnel in-station. This scenario is based on continued efforts to recruit and retain part-time personnel.

The projected operating expense budget in **Scenario A** for the fire and EMS district is provided in Figure 12. The current budgets of both departments were used as a basis for its development.

## Scenario A Estimated Budget

<b>Personnel</b>	
Wages/ Salaries	\$2,024,960
Workers' Comp	\$30,000
Taxes: FICA and Medicare	\$90,801
Pension	\$243,560
Insurance	\$247,500
Subtotal Personnel	<b>\$2,636,821</b>
<b>Contractual &amp; Materials</b>	
Insurance: fleet, building, liability	\$30,000
Utilities	\$28,000
Debt Service	\$99,200
Lease of Facilities	\$2,400
Building Maintenance	\$22,000
Fuel	\$20,000
Vehicle Maintenance	\$58,000
Contractual Services; dispatching, testing, EAP, etc.	\$111,000
Equipment Maintenance	\$15,000
Firefighter Gear	\$20,000
EMS/Fire Equipment	\$20,000
Training, professional development	\$25,000
Uniforms	\$15,000
Miscellaneous expense	\$15,000
Subtotal Contractual & Materials	<b>\$480,600</b>
<b>Supplies</b>	
Operating Supplies	\$10,000
Office/Adm. Expense	\$8,000
EMS supplies	\$15,000
Miscellaneous	\$5,000
Subtotal Supplies	<b>\$38,000</b>
<b>Capital</b>	
Small Capital Equipment	\$50,000
Large Capital Equipment	\$100,000
Subtotal Capital	<b>\$150,000</b>
<b>District Fiscal Office</b>	
Salary	\$45,000
Bonding/Auditing	\$8,000
Subtotal District Fiscal Office	<b>\$53,000</b>
<b>Total Budget</b>	<b>\$3,358,421</b>

*Figure 12*

	Taxation Rates							
	1.0 mill	4.0 mill	5.0 mill	5.5 mill	6.0 mill	6.5 mill	7.0 mill	7.5 mill
Waterville	146,467	585,868	732,335	805,568	878,802	952,035	1,025,269	1,098,502
Waterville Twp.	190,441	761,764	952,205	1,047,425	1,142,646	1,237,866	1,333,087	1,428,307
Whitehouse	128,556	514,223	642,779	707,057	771,335	835,613	899,891	964,069
Total Collection	465,464	1,861,855	2,327,319	2,560,050	2,792,782	3,025,514	3,258,246	3,490,978
Revenue	1.0 mill	4.0 mill	5.0 mill	5.5 mill	6.0 mill	6.5 mill	7.0 mill	7.5 mill
Property Tax	465,464	1,861,855	2,327,319	2,560,050	2,792,782	3,025,514	3,258,246	3,490,978
less adm cost*	18,619	74,474	93,093	102,402	111,711	121,021	130,330	139,639
Net collection	446,845	1,787,381	2,234,226	2,457,648	2,681,071	2,904,494	3,127,916	3,351,339
Fire Contracts	70,640	70,640	70,640	70,640	70,640	70,640	70,640	70,640
Lucas Co Contract	797,000	797,000	797,000	797,000	797,000	797,000	797,000	797,000
EMS billing	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000
<b>Total</b>	<b>1,444,485</b>	<b>2,785,021</b>	<b>3,231,866</b>	<b>3,455,288</b>	<b>3,687,711</b>	<b>3,902,134</b>	<b>4,125,556</b>	<b>4,348,979</b>
Est Exp	3,358,420	3,358,420	3,358,420	3,358,420	3,358,420	3,358,420	3,358,420	3,358,420
<b>Over/under</b>	<b>(1,923,936)</b>	<b>(573,400)</b>	<b>(126,555)</b>	<b>96,867</b>	<b>320,290</b>	<b>543,713</b>	<b>767,135</b>	<b>990,558</b>

\* tax collection assessment and delinquencies **Figure 13**

A revenue calculator and estimate of expense worksheet is shown in Figure 13. This worksheet assists in determining the revenue necessary to support the operational budget developed in Figure 12. The taxation rates provided by the Lucas County Auditor include the most recent property re-evaluations. Four percent of the total tax revenue collected was deducted to account for tax collection assessment and delinquent tax payments. Contract fees and EMS billing were included in the total revenue collected.

The revenue calculator indicates that a 5.5 mill levy along with EMS billing will provide sufficient funds to operate the fire and EMS district. Reserve funds accumulated will assist the fire and EMS district with long-term apparatus replacement and facility renovation.

Based on the projected expenses, a three-year operating budget was developed to show how the budget may be expected to increase and the overall effect on finances. Personnel costs are computed with a 2.5% annual increase and supplies and materials are computed assuming 3% increases. This budget is displayed in Figure 14. The annual increase in the Life Squad contract was not included in the calculation.

<b>Operating Budget</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Personnel</b>	\$2,636,821	\$2,702,742	\$2,770,310
<b>Contractual &amp; Materials</b>	\$480,600	\$495,018	\$509,869
<b>Supplies</b>	\$38,000	\$39,140	\$40,314
<b>Capital</b>	\$150,000	\$150,000	\$150,000
<b>District Fiscal Office</b>	\$53,000	\$53,000	\$53,000
<b>Total</b>	\$3,358,421	\$3,439,900	\$3,523,493

*Figure 14*

Using the information from the estimated three-year operating budget, a worksheet was developed that shows the effect of inflation on the budget and the importance of the accumulation of reserves. Accumulation of reserves is vital for future equipment replacement for fire apparatus, ambulances, and other capital equipment, such as SCBA.

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>5.5 mill</b>			
<b>Revenue</b>	\$3,455,288	\$3,455,288	\$3,455,288
<b>Expense</b>	\$3,358,421	\$3,439,900	\$3,523,493
<b>Net</b>	\$96,867	\$15,388	(\$68,205)
<b>Reserve*</b>	\$96,867	\$112,255	\$44,051
<b>6.0 mill</b>			
<b>Revenue</b>	\$3,678,711	\$3,678,711	\$3,678,711
<b>Expense</b>	\$3,358,421	\$3,439,900	\$3,523,493
<b>Net</b>	\$320,290	\$238,811	\$155,218
<b>Reserve*</b>	\$320,290	\$559,101	\$714,320

\*Accumulated reserves does not include investment income

*Figure 15*

Figure 15 shows reserves of \$44,051 after three years with a 5.5 mill levy. This is a fairly tight margin. Any significant emergency expenditure could create a financial hardship for the district. Future capital replacements will also require a disciplined planning effort to have sufficient funds available. Replacement costs for apparatus alone can quickly eat up reserves. It is estimated in the first five years of operation, the joint fire and EMS district will need to replace one of Waterville's engines. A 15-20 year replacement plan will need to be developed by the new management team to assist long-term financial planning for the district.

The newly formed SLJFD board will have to determine, based on input from the voters, what level of margin will provide the best environment for long-term success and financial stability.

A 6.0 mill operating levy will have a projected carryover after three years of \$714,320. This is a larger margin and would allow the joint fire and EMS district board to plan into the future without going back to the voters to purchase major capital items. However, the actual operating expenses may be slightly less than the budget developed in Figure 12 and revenue from a 5.5 mill levy may be sufficient.

The projected operating expense budget in **Scenario B** for the SLJFD is provided in Figure 16. This budget provides the same staffing plan as Scenario A, but includes a full-time shift commander position, which requires three additional personnel for 24-hour coverage. This is designed to provide proper supervision and reduce the stress on the Fire Chief and Assistant Chief. These positions in both departments currently have a tremendous workload, performing normal administrative duties, filling staffing positions, and responding to calls after hours. This supervisory position can help relieve some of that stress. All other budgetary considerations remain the same as in Scenario A.

**Scenario B** includes the following staffing plans.

1 Battalion Chief (Shift Commander)

Whitehouse Station

1 Captain (full-time)\*

2 Firefighter/Paramedic (full-time)

2 Firefighter/EMT (part-time)\*\*

Paid-per-call as needed

\*Captain can also be paramedic certified

\*\*Part-time firefighters can also be paramedic certified

Waterville Station

1 Captain (full-time)\*

4 Firefighter/EMT (part-time)\*\*

Paid-per-call as needed

\*Captain can also be paramedic certified

\*\*Part-time firefighters can also be paramedic certified

## Scenario B Estimated Budget

<b>Personnel</b>	
Wages/ Salaries	\$2,246,960
Workers' Comp	\$30,000
Taxes FICA & Medicare	\$94,020
Pension	\$296,840
Insurance	\$297,000
Subtotal Personnel	<b>\$2,964,820</b>
<b>Contractual &amp; Materials</b>	
Insurance: fleet, building, liability	\$30,000
Utilities	\$28,000
Debt Service	\$111,000
Rent/Lease	\$2,400
Building Maintenance	\$22,000
Fuel	\$20,000
Vehicle Maintenance	\$58,000
Contractual Services; dispatching, testing, EAP, etc.	\$111,000
Equipment Maintenance	\$15,000
Firefighter Gear	\$20,000
EMS/Fire Equipment	\$20,000
Training, professional development	\$25,000
Uniforms	\$15,000
Miscellaneous expense	\$15,000
Subtotal Contractual & Materials	<b>\$480,600</b>
<b>Supplies</b>	
Operating Supplies	\$10,000
Office/Adm. Expenses	\$8,000
EMS supplies	1\$5,000
Miscellaneous	\$5,000
Subtotal Supplies	<b>\$38,000</b>
<b>Capital</b>	
Small Capital Equipment	\$50,000
Large Capital Equipment	\$100,000
Subtotal Capital	<b>\$150,000</b>
<b>District Fiscal Office</b>	
Salary	\$45,000
Bonding/Auditing	\$8,000
Subtotal District Fiscal Office	<b>\$53,000</b>
<b>Total Budget</b>	<b>\$3,686,420</b>

*Figure 16*



	Taxation Rates							
	1.0 mill	4.0 mill	5.0 mill	6.0 mill	6.5 mill	7.0 mill	7.5 mill	8.0 mill
Waterville	146,467	585,868	732,335	878,802	952,035	1,025,269	1,098,502	1,171,736
Waterville Twp.	190,441	761,764	952,205	1,142,646	1,237,866	1,333,087	1,428,307	1,523,528
Whitehouse	128,556	514,223	642,779	771.335	835,613	899,891	964,069	1,028,447
Total Collection	465,464	1,861,855	2,327,319	2,792,782	3,025,514	3,258,246	3,490,978	3,723,710
Revenue	1.0 mill	4.0 mill	5.0 mill	6.0 mill	6.5 mill	7.0 mill	7.5 mill	8.0 mill
Property Tax	465,464	1,861,855	2,327,319	2,792,782	3,025,514	3,258,246	3,490,978	3,723,710
less adm cost*	18,619	74,474	93,093	111,711	121,021	130,330	139,639	148,948
Net collection	446,845	1,787,381	2,234,226	2,681,071	2,904,494	3,127,916	3,351,339	3,574,761
Fire Contracts	70,640	70,640	70,640	70,640	70,640	70,640	70,640	70,640
Lucas Co Contract	797,000	797,000	797,000	797,000	797,000	797,000	797,000	797,000
EMS billing	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000
<b>Total</b>	<b>1,444,485</b>	<b>2,785,021</b>	<b>3,231,866</b>	<b>3,687,711</b>	<b>3,902,134</b>	<b>4,125,556</b>	<b>4,348,979</b>	<b>4,572,401</b>
Est Exp	3,686,420	3,686,420	3,686,420	3,686,420	3,686,420	3,686,420	3,686,420	3,686,420
<b>Over/under</b>	<b>(2,241,935)</b>	<b>(901,399)</b>	<b>(454,554)</b>	<b>(7,709)</b>	<b>215,714</b>	<b>439,136</b>	<b>662,559</b>	<b>885,981</b>

\*tax collection assessment and delinquencies

*Figure 17*

The revenue calculator and estimate of expense analysis (Figure 17) indicates that a 6.5 mill levy along with EMS billing will provide sufficient funds to operate the district. Along with the capital funds identified in the projected budget, reserve funds accumulated will assist the district with long-term apparatus replacement and facility renovation. Based on the projected expenses, a three-year operating budget was developed to show how the budget may be expected to increase and the overall effect on finances. Personnel costs are computed with a 2.5% annual increase and supplies and materials are computed assuming 3% increases. This budget is displayed in Figure 18.

Operating Budget	Year 1	Year 2	Year 3
Personnel	\$2,964,820	\$3,038,941	\$3,114,914
Contractual & Materials	\$480,600	\$495,018	\$509,869
Supplies	\$38,000	\$39,140	\$40,314
Capital	\$150,000	\$150,000	\$150,000
District Fiscal Office	\$53,000	\$53,000	\$53,000
<b>Total</b>	<b>\$3,686,420</b>	<b>\$3,776,099</b>	<b>\$3,868,097</b>

*Figure 18*

Using the information from the estimated three-year operating budget, a worksheet was developed that shows examples regarding net operating expenses and the accumulation of reserves (Figure 19). Accumulation of reserves is vital for future equipment replacement for fire apparatus, ambulances, and other capital equipment, such as SCBA.

	Year 1	Year 2	Year 3
<b>6.5 mill</b>			
<b>Revenue</b>	3,902,134	3,902,134	3,902,134
<b>Expense</b>	3,686,420	3,776,099	3,868,097
<b>Net</b>	215,714	126,035	34,037
<b>Reserve</b>	215,714	341,749	375,786
<b>7.0 mill</b>			
<b>Revenue</b>	4,125,556	4,125,556	4,125,556
<b>Expense</b>	3,686,420	3,776,099	3,868,097
<b>Net</b>	439,136	349,458	257,459
<b>Reserve*</b>	439,136	788,594	1,046,053

\*Accumulated reserves does not include investment income

**Figure 19**

The accumulation of reserves shown in Figure 19 provides important data. A 6.5 mill operating levy will result in accumulated reserves of \$375,786 at the end of three years. These millage rates are significant, but replacement costs for apparatus alone can quickly eat up reserves.

Other Funding Options

The most popular method of funding a joint fire and EMS district is a property tax levy against real estate. It provides the most equitable method in terms of all citizens within the fire and EMS district paying the same rate, similar to a school district tax levy. However, there are other options that elected officials can explore. With three entities involved, a formula could be developed that includes population and emergency incident volume. Once that formula is agreed upon, the operating expense of the district could be split among the three entities. With this option, if Waterville and Whitehouse choose to continue to fund fire and EMS operations with a wage earner income tax, they could pay the joint fire and EMS district their share annually. Waterville Township will have to determine the amount of tax levy needed to fund their share, and seek voter approval accordingly.

Impact on ISO

With the creation of the new fire and EMS district response area, there may be no negative impact on the current Public Protection Classification of any of the entities. With the response

reliability of the joint fire and EMS strengthened, the ISO field evaluation and subsequent classification rating may be strengthened.

### Process to Proceed

To move forward with the formation of a joint fire and EMS district, the steps necessary are guided by the Ohio Revised Code. The key player in the creation of the joint fire and EMS district is the Lucas County Prosecutor's Office. The Prosecutor or Assistant Prosecutor must be involved with the formation and preliminary functions of the joint fire and EMS district board.

The action steps necessary are as follows:

- The Waterville Township Board of Trustees and the City Council of Waterville and Village Council of Whitehouse will need to adopt resolutions to form the SLJFD. It is recommended the County Prosecutor be consulted about this process.
- Each of the three entities will be required to select one representative (a township trustee or council person) to the SLJFD board. This will provide a working board of three members. If more board members are desired, a process would need to be developed to add at-large members. The County Prosecutor should be consulted regarding board formation.
- The SLJFD board will need to schedule meetings, select a chair, fiscal officer and other positions as needed. Once functioning, the board can operate similarly as a township. The three entities may consider providing initial funds to operate the SLJFD. For example, each entity may give \$5,000 each to the fire and EMS district to establish a bank account, post office box, fiscal office supplies, etc.
- The SLJFD board will need to select a Fire Chief.
- The SLJFD board will need to determine the start-up date for the new fire and EMS district and plan accordingly.
- The SLJFD board determines the millage needed to operate the district and takes the necessary steps to have the issue placed on the ballot. Other funding options can also be considered as previously described.
- Voters support new operating levy.
- The SLJFD management team and board prepares for operations to begin. Key areas of operation to address include administrative policies, operating

procedures, pay scales, benefits, leave management, etc. The transfer and liability of existing vacation and sick leave accruals of current full-time employees also will need to be addressed.

- With legal assistance, assets and loan obligations from Waterville and Whitehouse Fire Departments will need to be transferred to the new fire and EMS district, unless leasing options are chosen.
- All existing personnel will need to be appointed members of the SLJFD.
- Existing contracts will terminate on the designated date and new contracts executed with SLJFD.
- The new SLJFD begins operational response on designated date.

## Final Analysis

The purpose of this study was to determine if the creation of a joint fire and EMS district for the City of Waterville, Waterville Township, and the Village of Whitehouse was a viable option for consideration. In this study, the existing service delivery was reviewed as well as existing service demands. Next, a new fire and EMS district was developed on paper, including a projected operational budget and revenue collection. These items together provide the basis for officials to make their informed decisions.

After careful analysis and review, the assessment team has determined that it is feasible for the departments and the entities to form a joint fire and EMS district. While each department has their own identity and traditions, WFD and WHFD operate similarly, with both having part-time and PPC personnel. They face similar risks in the community and they have a good working relationship with each other and other departments in the area. With the proper leadership, the new organization should be successful.

As noted previously, there are several advantages to consider in forming a joint fire and EMS fire district. The joint fire and EMS district will result in an equitable tax base for all residents within the district response area. There will be an economy of scale that will reduce some of the operating expenditures, such as equipment and supplies. There will be improved operational efficiencies in staffing, training and future apparatus purchases.

In reviewing the projected expenses versus revenue, a 5.5 to 6.5 mill operating levy approved by the voters will provide sufficient funds for day-to-day operations along with build-up of reserves, depending on the staffing model chosen. These millage rates will support improved staffing

levels at both stations, which will significantly improve response times and reliability. The annual operating expense of the joint fire and EMS district is significant, but necessary if the staffing concerns are going to be addressed. The new joint fire and EMS district board, working together with the Fire Chief and management team, may determine a different staffing model that may meet the needs of the public. The taxation rates and work tables used in this study should provide the tools for the fire and EMS district board to analyze operational costs versus revenue.

The opportunity to start a new fire and EMS organization affords a chance to build a long-term funding structure that can provide the citizens and elected officials stability. It is the collective opinion of the assessment team that sufficient tax dollars must be sought to establish the district and set it on the right footing – do it right and do it up front so that long-range financial and operational planning can be performed. However, in the end, the decision on the amount of taxation that may be supported by the voters will be a discussion and deliberation for the elected officials of the participating entities.

Some of the important issues that will need to be addressed by the new fire and EMS district board include planning for apparatus acquisition. In addition, funds will most likely be needed to renovate existing station space for sleeping quarters. Having sufficient accumulation of reserve funds will allow capital equipment replacement and also allow planning for facility upgrades as needed. Without sufficient reserve funds, capital equipment replacement and new equipment acquisition can become problematic. Many entities and organizations across the state have become reliant on grant funding, but these processes are normally highly competitive, and the awarding of grant funds or the continuing funding of the grant program at the federal level can never be assured.

The SLJFD board will need to place an operating levy on the ballot. For illustrative purposes, SLJFD board places a levy on the ballot for 5.5 mills in the November 2019 election. If approved, the collection of taxes will begin in January of 2020. However, residents in Waterville Township are already paying on a tax levy and both municipalities receive funding from wage earner income tax. Waterville Township officials must clearly communicate to the residents that the existing levy will not be collected once the new district levy is approved. All of the entities will need to communicate the advantages of creating the new fire and EMS district and how the funding increases will be essential for success.

Finally, it must be emphasized that the creation of a joint fire and EMS district will require considerable time and effort. As the projected budget and revenue analysis shows, the formation of a new district will not result in any initial cost savings, based on the amount of funds currently being expended. However, the new fire and EMS district will provide the residents and members of the fire department expanded in-station staffing and long-term stability. There may

also be future opportunities for contracted services or expansion of the district, which may further stabilize the finances of the district.

The key issue for all those involved is determining the level of service desired by the public. An attempt to determine this service expectation must be initiated before placing tax levies on the ballot.

## Appendix A

In the State of Ohio, the Ohio Division of EMS is responsible for provider licensure and certifications, and oversight and enforcement of all of the laws governing EMS. These laws are listed in section 4765 of the Ohio Revised Code [<http://codes.ohio.gov/orc/4765>]. Each level of certification is based on the National EMS Scope of Practice, which has been incorporated into the ORC. This outlines exactly what procedures can be performed by each certification level. A basic EMT requires a minimum of 150 hours of initial training and at least 40 hours of continuing education every three years. An advanced EMT requires an additional 200 hours of training above that of an EMT-Basic and at least 60 hours of continuing education every three years. Advanced EMTs are able to perform many ALS procedures and administer certain medications to patients. To advance to the paramedic level, a person must possess EMT certification and is required to attend nearly 900 additional hours of clinical and didactic training, which allows them to perform even more life-saving procedures and administer additional medications. Examples of these procedures may be performing cardio-version, heart pacing, heart defibrillation (shocks to the heart) and advanced invasive procedures such as chest decompression and needle cricothyroidotomy. The paramedic must obtain 86 hours of continuing education every three years, which includes maintaining advanced cardiac life support certification offered through the American Heart Association.

In firefighting, training and certification has three distinct levels. Volunteer firefighting is the basic level and is limited by law to 36 hours of initial training. It is the minimum level required to perform the duties of a volunteer firefighter. This level of training is also the minimum required by law to serve as a part-time firefighter unless additional training is required by the local fire agency.

The next level of firefighter training is Firefighter I (FF I). This level requires an additional 104 hours of training beyond the volunteer course level. This level of training also requires the demonstration of competency in several required areas such as proper use of an SCBA. The highest level of training is Firefighter II (FF II). This includes 240-260 hours of training in a variety of subject matter and the ability to demonstrate competency in several required areas. Full-time firefighters in Ohio are required by law to achieve certification at this level to work in their position.

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