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Fire Department Administration

Fire Chief: John Lyman
Deputy Fire Chief: Matthew Covey
Administrative Assistant: Ann Ostrom
Office Clerk: Diane Beedle



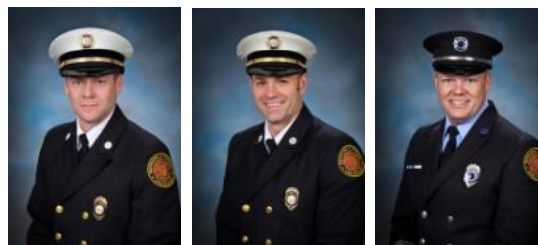
Fire Prevention Division

Fire Marshal: Assistant Chief Carl Wallace
Fire Inspector: Captain John Phebus
Fire Inspector: Lt. Mark Trager
Fire Inspector: Lt. Wayne Peruski



Fire Suppression and EMS Operations

Battalion Chief Steve Bridger
Battalion Chief Blake Nelson
Battalion Chief Josh Dorman



Training Division

EMS Coordinator/EMS Academy: Captain Jim Cooper
Training Officer: Battalion Chief Joshua Dorman



Fire Department Operational Support

Information Technology: Don Claey's
Station Maintenance: Battalion Chief Steve Bridger
Station Supplies: Todd Holmes,
Radio Maintenance: Chris Petres
Operational Assistant: Tom Rayner
Fire Gear: Lt. Eric Steinhebel

SCBA Maintenance: Kevin Fletcher
Public Education: Kurt Vine
Hazmat Team: Paul Dallas
Tech Rescue Team: Mike Moshier
Apparatus Division: Lee Warden

Chaplains

Linda Living Hawley
Ron Rayner





Waterford Regional Fire Department Mission Statement

The mission of the Waterford Regional Fire Department is to protect the lives and property of the residents and visitors of **Waterford Township**, the **City of Pontiac** and the **City of Lake Angelus** through:

Public education in fire safety and hazard recognition

Aggressive fire suppression and rescue

Professional emergency medical treatment of the sick and injured

Efficient pre-incident planning and emergency management

Hazardous materials control and mitigation





From the Fire Chief's Office...

It is my honor and privilege to serve as Fire Chief, working together with over 140 well-trained and highly skilled professional firefighters, paramedics, fire officers, inspectors, chiefs and office staff. Together, we provide incredible emergency services in a regional, multi-jurisdictional manner covering 60 square miles, which includes Waterford Township, the City of Pontiac and the City of Lake Angelus. This 2017 annual report is full of pages of important information, statistics and photos highlighting the diverse aspects that make up the Waterford Regional Fire Department. The service and dedication on display each and every day by all our fire department personnel is represented in this annual report.

Several retirements took place followed by promotions during 2017. Two new fire trucks were ordered; one being a Quint Aerial and the other a pumper/engine. We will take delivery of those trucks during the 2nd quarter of 2018.

The Fire Department maintained staffing during 2017 thanks to the 2015 SAFER grant through the United States Department of Homeland Security. This grant does expire in 2018, but we are hopeful to extend the grant at least one year, going into 2019.

I had the pleasure of participating in two charitable causes as Fire Chief. I was called on to dance for Faith in Action, which provides assistance to seniors in our area. It took several dance lessons over a three month period that culminated in a "Dancing with the Stars" event in Troy on January 21. My professional dance partner made that dance a positive experience. I was also asked to be one of the "Real Men Wear Pink" for the American Cancer Society. Shirts were sold and a Taco Night was held at Shark's Club. Melissa Kellenberger was my campaign manager helping us to raise over \$3,000 for ACS.

2017 calls for service totaled 13,094 an 8.2% increase over 2015. 8,928 or 68% of those calls were for EMS, traffic accidents and other rescue calls. Fires, hazardous situations, and other calls accounted for 32%. Fire calls as a whole were down 11%, with structure fires seeing a decrease of nearly 6% from 2016. 222 structure fire calls were residential and multi-residential structures. EMS calls were up 4.5% from 2016. EMS Transports for 2017 was at 5,070, up over 2% from 2016.

Our fire units responded nearly 24,000 times during the year. Response times for priority calls were at 5 minutes and 53 seconds for 2017. Our busiest fire station was station #3 with 3,037 calls. The busiest fire engine and rescue were both out of Fire Station #3 with Engine 3 responding to 2,950 calls and Rescue 3 responding to 2,368 calls.

This document as it does every year serves as a historical account of our department. We hope everyone who reads this will find it informative and enlightening to the diverse responsibilities that we handle every day.

John H. Lyman
Fire Chief





Operations – Deputy Chief Matt Covey

Promotional Testing for Line Captain and Battalion Chief

Testing and promotional lists were established for Line Captain and Battalion Chief. The testing procedure involves a written test and oral boards. We thank Arlene Ward at HR for her assistance and to retired Fire Chief Dennis Storrs for their assistance in completing this process.

Fire Cadet Program

During the mid 1970's, the Waterford Regional Fire Department initiated a cadet program intended to offer local area high school seniors the opportunity to experience first-hand what a career in the fire service was like. It was designed to prepare young, ambitious students for a career as a fire fighter. Since then many of the cadets that have participated in the program have gone on to become professional fire fighters with fire departments around the country. One former cadet became a smoke jumper battling the enormous wildfires in the western United States while others have chosen to enter the EMS field or the medical profession. Several fire fighters currently employed with the Waterford Regional Fire Department are former cadets.

During 2017 the Waterford Regional Fire Department had 7 High School students from within Oakland County attend our program. These students work with our firefighters and training division on a daily basis. The program goal is upon successful completion of the cadet program that they leave with the knowledge, skills and experience necessary to pursue a career as a professional fire fighter and give them an advantage in becoming a success in whatever their life's endeavor.

Fire Academy Sponsorship

The Waterford Regional Fire Department sponsored 6 students to the 2017 Oakland Community College Fire Academy. These individuals were supplied personnel protective clothing (turnout gear) and self contained breathing apparatus (air packs). This option had zero out of pocket expense to the fire department but offered a huge discounted rate for these 4 individuals.



Capital Improvements:

Fire Headquarters, 2495 Crescent Lake Rd

Fire Headquarters received an HVAC control system upgrade through a company called control-net. This upgrade replaced the antiquated control system that would not allow control of the boiler system and in and outside air temperatures. With this upgrade we will have better control of our HVAC system. This system should be a cost savings to the department and pay for itself over the next 3 to 5 years. We are continuing to become more energy efficient and cost saving fire department.

Fire Station 3, Elizabeth Lake Rd, Waterford

Fire station 3 was built in 1988 and its roof was in need of replacement. The roof age was approximately 29 yrs old. With the help of supervisor Gary Wall the Fire Department was able to find a good contractor to replace the roof.



Purchase of two Staff Vehicle

The fire department added two 2017 Ford Interceptors to vehicle Fleet. These two new Interceptors replaced two early 2000 vehicles.

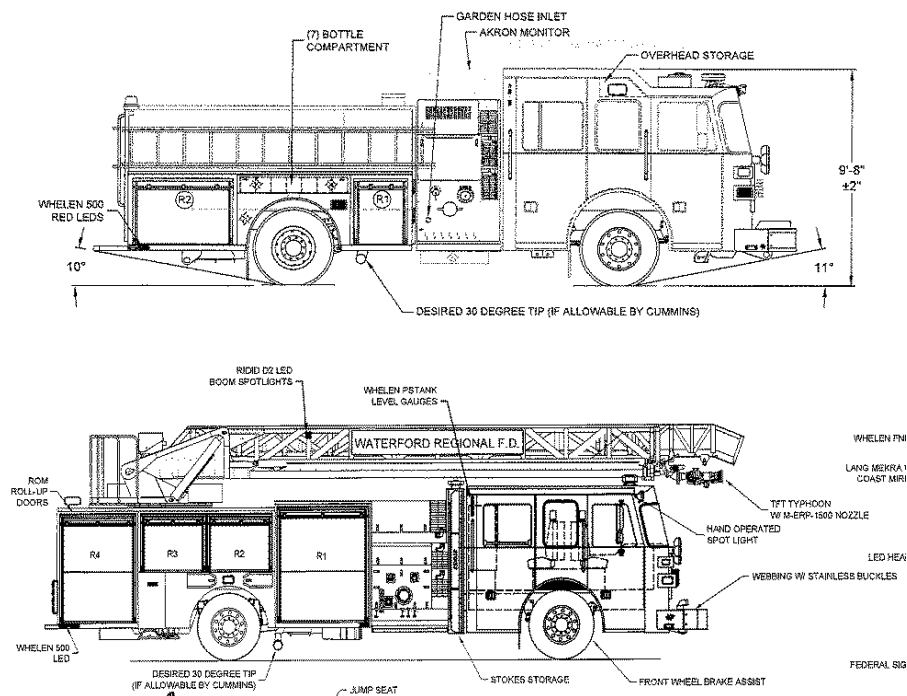


Finalization of our Fire Engine and Quint Purchase

With assistance of the Township board the Fire Department has ordered and finalized the purchase of a fire engine and a Quint from Stuphen Corp. We expect delivery of these 2 new vehicles in early to mid 2018. The pictures below are from the assembly plant in Ohio. Our new Trucks are built from the ground up.



These drawing are our actual trucks being built



Future Projects 2018

Fire Station 1 Headquarters - Update IT equipment in our large and small training room including paint and carpet. Repair concrete issues parking lot.

Fire Station 4 - Upgrade all flooring and carpeting, repave front drive and update minor electrical items.

Purchase a new rescue truck (ambulance) through EVP+ a Michigan based company.



Purchase a new command truck

This truck is a specialized truck that our fire command officer drives to all major incidents. The purpose of the truck is a mobile command center, accountability center and communications center.

In 2017 our labor agreement was settled except for one portion health care. Arbitration is scheduled for early 2018.

ISO Fire Protection Class Review

In early 2017 the fire department was approached by ISO to conduct a review of our fire protection class. Chief Lyman and met with ISO (to provide them the information they requested. This also included meetings with Waterford DPW, Oakland County Water Resources and Waterford Police Dispatch. We patiently wait for our classification.



What is ISO?

ISO collects information on municipal fire-protection efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data using our Fire Suppression Rating Schedule (FSRS). We then assign a Public Protection Classification from 1 to 10. Class 1 generally represents superior property fire protection, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria.

How do Insurers use PPC information in many ways. PPC can help determine how much to charge for coverage: If a community has a lower PPC, its property owners, both commercial and residential, usually pay lower premiums, assuming everything else is equal. Insurers can manage the quality of fire protection across their book of business and even identify opportunities for writing new business.

Some factors considered when determining an ISO rating.

- Municipal water supply system water flow rates
- Communication system and alerting (911 Dispatch Center)
- Aerial trucks capability based on number of commercial buildings
- Gallon per minute capabilities of a fire engine
- Mutual aide agreements
- Fire training hours
- Response times to fire runs
- Number of personnel a fire department averages on a fire call
- Number and Location of fire stations to community need

Current ISO ratings

The Township of Waterford's current ISO Rating is currently a 4.

The City of Pontiac current ISO Rating is currently a 3.

The City of Lake Angelus current ISO Rating is currently a 4.



Promotions

Josh Dorman promoted to Battalion Chief



John Phebus promoted to Captain Inspector



Jim Cooper promoted to Captain



Dan Dumas promoted to Captain



Paul Dallas promoted to Lieutenant

(No picture available)

Paul Holmes promoted to Lieutenant



Retirements

Battalion Chief Jim Runyan (31 years), Captain Dave Hensel (28 years), Ryan Gross (28 years), Dennis Rederstorf (26 years) and Ron Fritz (26 years).



We thank them for their years of dedicated service to this department.



Grant Writing

The Fire Department has been awarded nearly \$21.5 million in grant awards since 2003, for needed equipment and personnel.

Assistance to Firefighters Grant

Waterford Regional Fire Department was awarded a grant in 2017 from the Assistance to Firefighters Grant Program. The grant project total was over **\$275,000** with a cost match of 10% for the Fire Department. This was an EMS project, to which we purchased 7 CPR Compression Devices and 7 Power Lift Stretcher Systems for our rescue trucks.



New CPR Devices



Power Lift Stretcher Systems.



SAFER Grant

Waterford Regional Fire Department was awarded this grant in 2016. It has allowed us to hire 39 personnel for our fire trucks. We completed the first year in September 2017, and the Period of Performance will end in September of 2018. We will be asking for an extension of hopefully 1 year in Q1 of 2018. This grant award is for more than \$8.5 million. The additional personnel hired through this grant do keep our communities and firefighters "SAFER" from fire and the hazards associated with fire.

Grant awards such as these allow the Fire Department to better serve the residents in the three communities we serve, and saves Waterford Township millions of taxpayer dollars. The Fire Department has seen nearly \$21.5 million in grant awards since 2003, for equipment and personnel. Unfortunately in 2017 we were turned down on the replacement of our 25 year old Tower 1. We will review the previous grant application and work to submit another application during 2018 to replace that truck.

The 2017 AFG application period did not open up until late December of 2017. Therefore in 2018 we will be looking to apply to the AFG program to replace nozzles and foam eductors, in addition to the Tower 1 replacement.

We also applied to the Firehouse Subs Public Safety Foundation to replace obsolete thermal imaging cameras.



Recognition and Honors

Our firefighters and paramedics were recognized by two organizations for their efforts in a Technical Rescue incident involving two seriously injured patients trapped in a large water tower in Pontiac. We thank them for recognizing the efforts of our personnel.



April 2017 the Waterford American Legion Post #24 honors our crews.



January 2017 Oakland County Medical Control Authority recognition included our OAKWAY partners and Dr. Tressa Gardner, our project medical director.



An early December house fire trapped a resident in his home. Our firefighters entered the home, located the victim, carried him out and handed him off to our paramedics for emergency care and transport to the Hospital. December 19th he paid a visit to the Fire Department and those firefighters and paramedics were awarded Life Saving awards. Fox2 News was on hand to report on this event.



Angela Corliss from Farmer's Insurance honored the fire department by her contribution of station supplies to four of our fire stations



In November, Waterford Firefighters honored Oakland County Deputy Eric Overall who was killed in the line of duty. We proudly flew the American flag over the middle Walton Blvd. Our personnel stood at attention for the funeral procession passed as it passed by Fire Station #6.



Public Events

The Waterford Regional Fire Department proudly participated in multiple public events in Waterford and Pontiac.

Hometown Hero Party with Waterford Parks and Recreation and Waterford Police Department.



Tree planting in a Pontiac neighborhood



Woodward Dream Cruise and the RoadKill Nights
Fire and EMS standby in Pontiac



Proudly participated in the **Holiday Extravaganza Parade** in Pontiac this parade is a multi-community event.

Smoke Detector Giveaway with the Red Cross



Public Events continued...

Memorial Day Parade in Waterford.



Bike Helmets giveaway in our schools partnered with McLaren Oakland



Longest Breakfast Table Charity event, this annual event was started after 9/11. The proceeds support the Waterford Police and the Waterford Fire Department Charity funds. LifePointe Church of Waterford proudly sponsors and partners with the Police and Fire Departments on this event. They have raised over \$100,000 for the Fire and Police Charity funds.



Public Events continued...

Transporting Santa to the Waterford Township Christmas Tree Lighting



Fire Department Open House at Fire Department Headquarters

Jim Christopher from Leo's Coney doing his annual serving up coney dogs to our visitors. Many thanks to him for his commitment to the Fire Department.



Waterford Regional Firefighters in Action in 2017

South Paddock Fire in Pontiac



Mutual Aid

Mutual Aid is an essential component of any fire department in keeping its residents and firefighter safe from all hazards. Waterford Regional has been a member of the OAKWAY Mutual Aid Organization since 1999. OAKWAY is comprised of 8 fire departments working together to provide the best in emergency services to over 450,000 residents. Together we have nearly 400 career firefighters that train together to be ready when an OAKWAY Fire Department is overwhelmed and resources exhausted. OAKWAY also serves to provide hazardous materials and technical rescue teams in a collaborative manner. The OAKWAY Chiefs meet monthly at Waterford Regional's Headquarters to discuss matters important to the entire group and to continue to improve relationships between all of our departments, which in turn enhances the emergency services provided to all our communities in Oakway.



In 2017, our OAKWAY partners assisted Waterford Regional Fire Department on structure fires, and EMS mutual aid. OAKWAY provided station coverage during large incidents in our first response area as well.

OAKWAY was a tremendous help to WRFD during the July 1 building fire in Pontiac in which 40 residents were rescued. Independence Fire Department also helped with station coverage during that fire.

We do respond outside of OAKWAY to neighboring fire departments for Mutual Aid as requested. In total for 2017, Waterford Regional received mutual aid 17 times and responded to mutual aid calls 42 times.

Mutual Aid has developed nationally in the last 10 years to what is referred to now as the Mutual Aid Box Alarm System (MABAS). OAKWAY and its 8 fire departments, including Waterford Regional are designated by the State as MABAS 3202.





Apparatus Division – Lee Warden

2017 proved to be another challenging year for the Apparatus Division. With an aging fleet and obsolete parts becoming unavailable, we had to find creative ways to keep trucks on the road. We are responsible for the repair and maintenance of an incredibly large and aging fleet including 12 fire engines, three 100'-aerial trucks, seven rescues/ambulances, three specialized equipment trucks, seven trailers, 14 staff cars, 3 command trucks, a 6x6 Ranger and the rescue boat.

At the end of 2016 we decided to send the entire fire apparatus fleet out for a third-party serviceability inspection to LTM. This inspection identified some serious repair issues. Most were suspension, drive line and oil leak issues. Over 2017 we had most of these issues addressed at a substantial cost to the fire department.

We continue to take advantage of the many resources available to us to create cost-savings for our division. For example, researching the most cost-effective way to purchase parts that are no longer available through the dealer. These parts were purchased through Amazon, eBay and other private retailers. We continue to use Eastern Oil Corporation as our primary oil provider, which continues to result in substantial cost savings to the department. We also continue to use O'Reilly's auto parts government pricing which also brings continued cost savings. Bostick, LTM and Clyde's Frame and Wheel are still our primary repair sources for repairs that the mechanics division is unable to make in-house.

In late 2017 we were happy to see an order placed with Sutphen Corp. for a new Quint and Pumper and we are anxiously awaiting the arrival of the new apparatus in mid-2018. Going forward 2018 will again be a challenging year with the aging condition of our fleet. Parts continue to become obsolete and become more and more difficult to find in the market place. Although we have found creative ways to cut costs, the fact that the average age of our fleet is 17.7 years old has a significant impact on the price that we pay for repairs and maintenance, not to mention significant downtime. In 2018 we are still working to find a better way to track parts and maintenance. We also plan to continue our education efforts which will lead to additional EVT certified mechanics on the team. Despite these challenges, we will continue our pursuit of excellence in the maintenance of our fleet and all apparatus needed to protect the citizens and property of Waterford Township and the City of Pontiac.





EMS Coordinators Report – Captain Jim Cooper

Waterford Regional Fire responded to over 13,000 calls in 2017. Of that nearly 9,000 were EMS related calls. That equates to 68.2% of all runs for the Waterford Regional Fire Department in 2017 were EMS related. As EMS is such a large share of the functions in Emergency Services, Captain Jim Cooper our EMS Coordinator and Instructor Coordinator works to manage licensures, trainings, academies, certifications, etc. to ensure our EMS capabilities are first rate. Life and Death decisions are made all the time by the men and women of this department; they must be well-trained and ready when that station tone sounds and our units are dispatched to a resident in need. Captain Cooper has several EMT's that assist him in providing continuing education for our personnel, public education and our EMS Academy programs.



All WRFD personnel are licensed with the Michigan Department of Community Health – Emergency Medical Services and Trauma System Section, as a Medical First Responder, Basic EMT or Paramedic. There are 99 paramedics, 33 Basic EMTs and 3 Medical First Responders.

There are many requirements to become licensed and remain licensed in the EMS field. Many trainings, certifications and continuing education credits are conducted throughout the year to maintain the excellence in pre-hospital medical care that our residents have become accustomed to and truly do deserve. All career personnel are licensed with the American Heart Association in CPR/AED as a Basic Life Support Healthcare Provider (BLS). All paramedics are licensed with the American Heart Association in Advanced Cardiac Life Support (ACLS) and have completed mandatory Oakland County Medical Control Authority protocol training and testing. The EMS Training Division conducted a total of 46 Continuing Education (CE) classes for our personnel.

McLaren Regional Medical Center continues to serve as our base hospital, with Dr. Tressa Gardner serving as the Physician Medical Director for the Waterford Regional Fire Department and Waterford EMS Academy. We are again grateful for their dedication and commitment to EMS.

The Assistance to Firefighters Grant program allowed us to purchase new CPR devices and Stretcher Power Load systems. This equipment is a welcome addition and will serve our residents in tremendous ways for many years to come.



In 2018 we are looking forward to adding a new rescue to our fleet. We are operating with 7 rescues, 5 are in-service every day.

The table below shows the Hospitals we transport to and the number of times to each.

EMS Transport Hospitals	Number of transports
Beaumont - Royal Oak	71
Beaumont - Troy	13
Crittenton - Rochester	16
Henry Ford - Detroit	1
Henry Ford West Bloomfield	57
Hurley - Flint	2
Huron Valley - Commerce	341
Mclaren - Clarkston	57
Mclaren - Pontiac	1304
St. John - Macomb	5
St. Joseph - Pontiac	3195
University of MI - Ann Arbor	1



The Waterford EMS Academy conducted 14 Basic Life Support classes, 23 CPR classes, 17 First-aid classes and 12 Bloodborne Pathogen classes provided to the public, Waterford Township employees and the Waterford School district teachers. Many of these classes are held at Fire Department Headquarters, while many times we take our show on the road to meet the needs of the public and local agencies.

A total of 151 people attended BLS classes, 307 people attended the CPR classes, 186 people attended the First-aid classes and 13 people attended the Bloodborne Pathogens classes for a total of 657 people.

We conducted one paramedic course in 2017, which would be the last Paramedic class held by the Waterford EMS Academy, as the State of MI has changed its policies that affected our EMS Academy and many others across the State. Seven students graduated from this Paramedic course. We are hoping that the State will review their policy and make changes to allow us to once again hold these needed classes in our area.

Three Basic EMT classes were conducted in 2017. 26 students graduated from our Basic Academy.





Fire Radios – Chris Petres

The Waterford Regional Fire Department has a total of 153 in-service Harris OpenSky portable and mobile radios, 7 VHF hospital / state MEDCOM radios in our ALS rescues, 9 station alert systems that include Federal Signal Informers (Plectrons), OpenSky radios, power supply and audio amplifiers and speakers. Dispatch equipment includes 2 VHF base stations, and 1 back up radio with mini-console at sta.1 with tone capabilities. Additional VHF and OpenSky radios are held in reserve for backup and repair 'loaners'. Police dispatch operates our radios via a private phone line link between their consoles and the radio tower site.

Our radios allow us to communicate on different talk-groups or channels in situations of fires or other larger scale incidents. For multiple alarm incidents, we also have the ability to communicate with OAKWAY and other Mutual Aid partners through this advanced system.

We logged 68 repairs in 2017, plus other smaller undocumented repairs. These include replace or repair of damaged radios, lapel microphones, antennas, station alert systems, and other miscellaneous parts. We are also responsible for training new hires how to use our radios, refresher training for existing personnel, tower site radio updates, conferences and meetings.

All batteries have been tested / conditioned to ensure acceptable runtime and performance. As a result of testing, 108 batteries were deemed substandard and replaced. We exchange faulty batteries with the county at no cost to the department.

Dennis Rederstorf handled the repair and maintenance of fire department radios for many years and retired. Chris Petres had been shadowing Dennis for over a year and is now responsible for our radios.

New antenna (white stick) on top of 150' tower.
Also shown is AT&T cellular and lighting rods.



New VHF antenna being hoisted by tower climbers.



Notable Accomplishments in Radio System

This year we accomplished several projects. A new base station radio and antenna was installed at the main dispatch radio tower. This project provides a complete redundant backup system for dispatch. The old system design shared several components creating multiple single points of potential failure; an undesirable condition. The existing radios were at the end of supported life. This new design is built around NFPA 1221 and is eligible for full ISO points. Competitive bids were solicited from several vendors and the winning bid came below standard state contract pricing. The new radio and antenna became primary and the originals were moved to 'hot' standby. The old backup base station will be moved in the future to Headquarters to further strengthen the system. An old police antenna was removed from the tower and replaced with our new one. This allowed us to place it higher on the tower; increasing signal strength and reliability. The existing antenna lines were tested and re-used. Creative engineering and system testing allowed a cost savings of around \$1500 plus climber fees. Costly additional tower lease fees were avoided by re-using this abandoned vertical real estate space. A Knox padlock was obtained from inspection division and placed on the access gate; crews found the tower owner has changed the security gate access codes in the past without notice. This lock will allow the FD continued rapid access to its equipment in the event of emergency.

Staff attended several Oakland County CLEMIS radio / 911 advisory board meetings. Additionally we attended the Association of Public Safety Communications Officials (APCO) tradeshow in Windsor, ON. Information was gathered on new communication products including station alert systems, and mobile data.

The department had some old non-compliant radios lingering. They were removed from service or modified for FCC compliance. Obsolete and non-serviceable equipment was given to Oakland County Amateur Radio Public Service Corps, a division of Oakland County Homeland Security. While it no longer has any value or use to police/fire, gear has been recycled and is still serving the community. Uses include SkyWarn weather spotters, disaster hospital communications, outdoor siren testing and Woodward Dream Cruise communications.

FCC radio station licensing was corrected and updated. Cost savings were realized doing this in-house.

State EMS inspection revealed a VHF communication failure. Staff determined department equipment was fully functional and in compliance. Staff investigated further and found a problem with hospital equipment. We were able to quickly rectify the issues for them. We have also aided in testing and making repairs to hospital's radios at other times as well.

Opensky Radio in a Fire Vehicle



OpenSky Portable Radio



Future Plans and Goals

The County is currently in the beginning phases of replacing the OpenSky radio system. Staff will continue to watch this progress closely and advocate for the department's needs and expectations. Current estimate of project completion is 2020. We can expect significant man-hours to be devoted to planning, installation, training, and testing of the new system. There may also be incidental costs such as accessories and options not covered by the scope of the project.

Radios are not just a radio anymore. Many new communication systems are really an IT / IP device with an RF (radio) component. We expect to need to work closely with IT staff on future projects.

Michigan has 'opted in' to FirstNet, the future public safety wireless broadband system. We will watch for developments on this.

As our OpenSky system ages, we can expect an increase in repair and labor costs. Harris has stopped supporting our portable radios on 12-31-2017. We will continue to work with the county to repair, however a shortage may be possible as radios become non-repairable.

Staff will continue to look at station alerting systems, with an emphasis on 'heart-saver' features such as ramped tones and lighting. These systems, especially when CAD-integrated, may have the added benefit of reduced 'received to dispatch' times, free up radio airtime, allow dispatch to focus on other tasks, provide crews with additional information, mobile apps, and aid in NFPA 1221 and ISO compliance. Staff is beginning to have conversations with vendors and develop plans. It may be prudent to watch the development of the county's new radio system before committing to a vendor or design.

Staff is creating a preventive maintenance program. The goal is to have scheduled quarterly inspections and tests of critical dispatch system components, including tower sites, station alerting equipment, and backup power systems. While this may initially cause slightly higher costs, it should improve system reliability, reduce unexpected downtime, and lower costs and hassle associated with unexpected failures. Quarterly inspection and testing is required for full ISO credits.

Back up radio/dispatch console at Fire Station #1





Fire Gear – Lt. Eric Steinhebel

The WRFD has 183 sets of turnout fire fighting coats and pants in service. There are also 34 new & used different size coats and 37 new & used different size pants in inventory.

In 2017, 117 of our 217 total sets of gear were NFPA inspected, repaired and approved for use.

We were able to get most of our gear that needed inspection and re-certification in 2017 done. All the gear can never get done in a year's time. This is because the majority of our personnel only have 1 set of gear and our work schedules don't allow it to happen. Most of our gear gets done every 1.5 years, which is really good.

14 new sets of gear were ordered in 2017. 8 sets were to replace in-service gear that was over 10 years old or older. 4 sets were for new hires that we didn't have the correct size for them when they were hired. 2 sets were put into stock.

Future Requirements:

- Both 2017 R&M account numbers should be able to work in 2018. This will help us continue on our NFPA approved safety inspection, cleaning and repair services needed.
- Due to a 10 year age requirement. 10 front line sets of gear will be getting replaced in 2018. There will also need to be 6 new sets ordered for our stock to replace aging gear we have. The estimated cost will be around \$1,700 per set for new bunker gear orders in 2018.
- Also, we have 44 sets of in-service gear that was purchased in 2012. Forward thinking suggest that instead of replacing all 44 sets at the same time in 2022. 10 new sets should be ordered per year up until 2022. This would keep the future safety of our personnel in check and up to date without adding a big drain on the department's future budgets. The added cost for this will be \$16,500 in 2018 with the cost going up every year after that.

Dennis Rederstorff did a tremendous job managing the purchasing, cleaning, repairs, NFPA standards for fire gear for this department for so many years. He retired at the end of 2017 and Lt. Eric Steinhebel has picked up this responsibility.





Fire Prevention Division – Asst. Chief Carl Wallace

The Fire Prevention Division currently consists of two Fire Inspector Lieutenants, one Fire Inspector Captain and the Fire Marshal. All four employees are certified Fire Investigators and State of Michigan Certified Fire Inspectors. The Fire Marshal and Captain are also a State of Michigan Public Act 54 Registered Code Official for inspecting Fire Protection Systems and reviewing Fire Protection System Plans.

The Fire Prevention Division continues to conduct fire inspections, site plan reviews, fire alarm system plan reviews, fire suppression system plan reviews, fire safety inspections, fire investigations, assigns addresses and performs other activities as required. We continue to make our priority assembly occupancies, commercial buildings that have special fire systems, high hazards occupancies, new construction and buildings with occupancies changes.

2017 was a busy year for Fire Prevention with an increase in new building projects in both the Township and the City of Pontiac which in turn increased the number of man hours dedicated to plan reviews and new construction inspections conducted by our Inspectors. This is a good sign for the economy of both communities. However, at current staffing levels day to day operations limit our ability to be proactive with our Annual Life Safety Inspections. Easing the stress of the increased work load is a good working relationship with both the Waterford Township Department of Development Services and The City of Pontiac Building and Safety Department.

2017 also came with several unique challenges, like the 245 South Paddock Fire which devastatingly compromised the building structure and displaced all residents. The Pontiac Silverdome partial implosion and subsequent demolition was also unique working with the City of Pontiac and the demolition company. The first implosion date did not go as planned. The next day they tried again and it was successful.



Inspections and Plan Review:

The Fire Prevention Division performed 709 fire inspections, processed and reviewed 304 plans in 2017. The number of fire inspections conducted saw a slight decrease. The number of plan reviews completed in 2017 has seen an increase of 78 reviews compared to 2016. This year 168 plan submittals were completed in the Township and 136 in the City. These plans include site plans, hood system plans, fire alarm plans, fire suppression (sprinkler) plans and special suppression agent plans. We reviewed and



verified inspection reports on various fire safety systems throughout Waterford Township and The City of Pontiac. All acceptance tests are done cooperatively with the building department inspectors. The Waterford Regional Fire Department continues to handle all reviews for fire suppression and fire alarm systems in the Township and reviews/assists in the review process with the City of Pontiac Building Department. The building departments and fire department continue to work well together in the best interest of the citizens of Waterford Township and the City of Pontiac.

Fire Investigation:

Fire Prevention Division personnel was called upon for 93 Origin and Cause Investigations throughout Waterford and Pontiac. Each member is on call one week out of the month for “after hour’s investigations” and is backed up by a second investigator on each fire scene. The Waterford Township Police Department has assigned Detective Greg Allen to assist with fires within Waterford Township when the work of a detective is needed. The Oakland County Sheriff’s Office Fire Investigation Unit is used to assist in both the City of Pontiac and Waterford Township as needed.



Addresses:

The Fire Prevention Division assigned 92 addresses in Waterford Township in 2017, a slight increase from 2016.

Freedom of Information Act: (FOIA)

The Fire Prevention Division processed 216 FOIA requests in 2017, an increase of 52 requests from 2016. Most of these were for information regarding underground storage tanks or hazardous materials at commercial businesses. This also included requests for information regarding fire reports and fire investigation reports/ files.

Training:

Training has always been a large part of the Fire Prevention Division as it is in all aspects of the fire services. The Division must remain current in all disciplines of the fire service in case we are needed for firefighting and EMS activities in addition to our fire inspections and fire investigations work load. All division members are required to attend continuing education classes throughout the year to maintain certifications in the disciplines of Fire Inspection, Fire Investigation, Firefighting and EMS.

Pre Fire Surveys:

Pre Fire Surveys are being conducted by our on duty fire suppression crews when time allows. This is a very important part of protecting not only our citizens and businesses but also allows our personnel to familiarize themselves with building to ensure their personal safety.



302 Sites:

Waterford Township and the City of Pontiac currently have a number of sites designated as 302 sites. These are occupancies that store or use hazardous materials over a specified amount. These facilities must file an annual report to the Local Emergency Planning Committee (LEPC) which is Oakland County in our jurisdiction. These reports are compiled and are carried on each fire apparatus. This “book” (tablet information) is updated when we receive the reports from the LEPC. All fire department personnel have been given “site specific” training. Training is coordinated with our Hazardous Material Team Leader and the Training Division. The Fire Department Operations Assistant also assists with the 302 site program within our communities.

Smoke Detector Program:

When it is discovered that a residence has no working smoke detector, the fire department will provide and install a free smoke detector. These detectors are installed by on-duty personnel or a Fire Inspector. Statistics have shown that having one working smoke alarm in a home will reduce the risk of death in a fire by 50%. We feel this program is a cheap investment for the protection of our residents in both the Waterford and Pontiac Districts. All eight fire station have smoke detectors on their front line fire engine and tools to install them. Some of the Smoke detectors have been donated to our department by local businesses after hearing of our detector program.

Fireworks:

The Fire Prevention Division reviewed, inspected and supervised all fireworks displays conducted in Waterford Township and a display in Pontiac. All of the shows were conducted following NFPA 1123 standards. The majority of the shows were conducted from the water on barges. This significantly reduced the fallout and danger for the spectators. We also had two displays that was ground fired at Waterford Kettering High School and M1 in Pontiac. In 2017 we issued 5 permits with standby in Waterford and 2 in the City of Pontiac.





Fire Prevention Education – Kurt Vine

We continue to work hard for the Waterford Regional Fire Department as we represent the department to the schools and community groups in our area. Five firefighters work hard to schedule and create and conduct the fire prevention education program. They are: Kurt Vine, Greg Mathiak, Matt Blom, Aron Lewis, and Jamie Todd.

Fire Chief Lyman has allowed us to be very aggressive and creative in our efforts to educate the citizens about the fire hazards that they can encounter in their daily lives. We are very pleased with the relationships we have cultivated with parents, students and school staff in our communities. Our program is in cooperation with the citizens and school districts of Waterford and Pontiac and numerous private and charter schools within our jurisdiction. It is estimated that over ten thousand children and adults were exposed to our Fire Prevention Education Programs during 2017.

THE FIRE SAFETY HOUSE

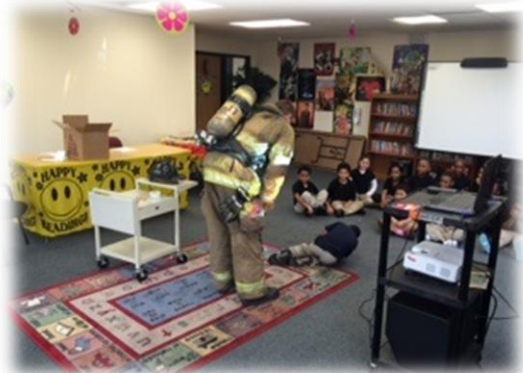


The Fire Safety House was involved in numerous events this past year and was seen continually and consistently all over the community. This portable training tool made an appearance at every elementary school in both Waterford and Pontiac School Districts this past year. This program is focused toward third and fourth grade students. Written reports are documented for each Fire Safety House use. Weather permitting, we use the months of April, May, June, September, October, November to get this unit to each school. Within the Fire Department, a team of firefighters are trained and responsible for the instruction of our students in both Waterford and Pontiac communities. The Fire Safety House was used in two parades in 2017. Pontiac – Winter Extravaganza and in Waterford – Memorial Day Parade.



FIRE SAFETY CLASSROOM PRESENTATIONS

Fire safety presentations are done during the winter months while the fire safety house is in storage. Throughout the winter months Kurt Vine and Greg Mathiak visited every elementary school in Pontiac and Waterford. These presentations deal specifically with kindergarten through second grade. Children are taught about smoke detectors, the dangers of matches and lighters, escape plans and who to call when they have an emergency. These presentations instill knowledge at an early age how to handle an emergency and teach life safety skills they can share with their parents when they return home from school.



FIRE DEPARTMENT OPEN HOUSE

The Fire Prevention Week Open House was held this year at Station #1. This is an annual event for the communities. Literature, station tours, fire safety presentations, live burn demonstration and the Smoke House were used to educate our citizens. Waterford firefighters come together to talk with citizens and discuss the message of fire safety to young and old. Our community event was augmented by local businesses: Leo's Coney Island provided food. Stars and Stripes provided mats for Stop, Drop and Roll activities. Genisys Credit Union sponsored face painting and McLaren Oakland provided a bicycle safety station to fit and donate hundreds of bike helmets as well as a distracted driving simulator.

LONGEST BREAKFAST TABLE

This annual event occurs at Fire Station #1. Station tours were given, breakfast is provided and the Smoke House was available for presentations. This event is very popular with the citizens and is a good representation for the Township, Police and Fire Departments. Funds raised are donated to both Departments' respective Benevolent Funds.



HOME DEPOT OPEN HOUSE

In creating stronger partnerships with local businesses, the Fire Safety Team committed several fire trucks and personnel to interact with the public at this event. Fire Safety literature was distributed and tours of the apparatuses were given.

OAKLAND COUNTY SHERIFF'S OFFICE'S 4TH ANNUAL HARVEST FESTIVAL ANGELS NIGHT

This is the fifth year for this event and the Pontiac School District added the "Lights On: Trunk or Treat" portion. The Waterford Regional Fire Safety team provided a number of fire trucks, including Engine 7 and Tower 8. On duty personnel provided tours of the trucks and a demonstration of the aerial truck in addition to providing Fire Safety materials to children. This event is attended by hundreds of families in the area and is one of the larger events that fire safety staffs.

AIRPORT OPEN HOUSE

This annual event is the largest attended by the fire safety team. We provide the event with a "display" engine as well as an on duty rescue. Fire Safety literature was distributed and tours of the fire engine were given to the public. The fire engine provided for display remains one of the most popular attractions at the show. It is estimated that near 1,000 people tour the fire engine. Families are allowed to climb into the cab of the truck and take family photos. Attendees are able to ask questions and receive fire safety tips from personnel.



FIRE STATION TOURS

We have hosted numerous tours of Station #1 throughout the year with many area scouting, school and other citizen groups. Kurt Vine, Greg Mathiak and on duty personnel were utilized to handle tours from the schools, scouts and other contacts. Other tours of the fire station are coordinated between Fire Department Administration and the Battalion Chief on duty.

SCOUT GROUPS

Numerous scouting groups came to the Fire Department for station tours and fire safety presentations to earn first aid and fire safety merit badges.

PONTIAC NIGHT OUT EVENT

This was our fifth year in attendance at this event which was held at the Oakland County Sheriff's Department substation in Pontiac. On duty personnel attended this event with a variety of fire trucks. Fire Safety informational literature was passed out at this event.



HARVEST HAPPENINGS AT HESS HATHAWAY

This was a large community event to which the Fire Department supplied a Fire Engine for community education on fire safety and to answer any questions the public may have about the fire service or equipment.

VARIOUS COMMUNITY EVENTS

The fire safety team attended numerous church events as well as local neighborhood outreach programs. The team spent time at the Salvation Army summer camp answering questions about fire safety as well as teaching them how you can become a firefighter.

SENIOR CITIZEN FIRE SAFETY

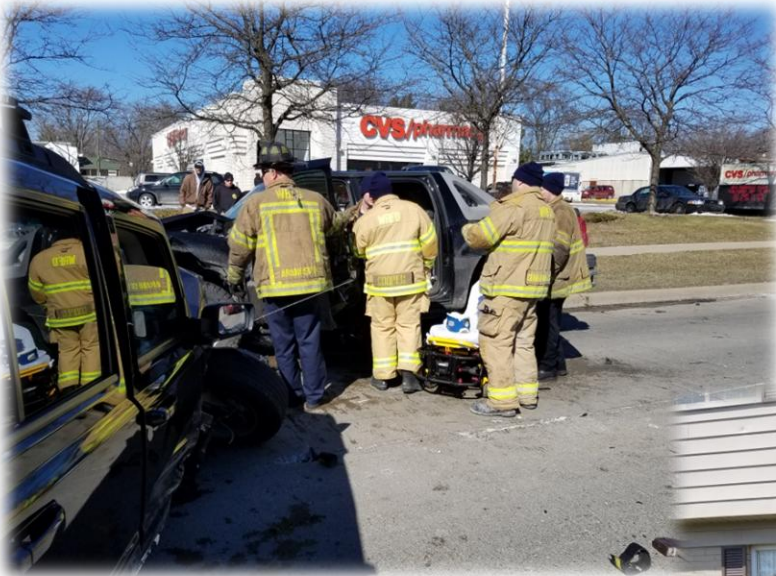
Numerous events were held at local assisted care and independent living facilities for senior citizens. The seniors who attended these events were given literature on fire safety. A question and answer session was held to discuss how to handle different emergencies weather related as well as medical.

SPECIAL THANKS

It is truly a pleasure for all of us to be a part of the education program. We are on the “front line” of fire prevention and public relations in these communities. We are so very appreciative of the commitment that Genisys Credit union has made to this program. Genisys graciously donated \$2,000.00 for supplies. With their help we were able to hand out supplies with the Genisys sponsored logo to approx 5,000 children. Events for the smoke house totaled at 17 schools as well as 4 community events. We also provided the K-2 portion for 17 schools between the city of Pontiac and Waterford Township. We would like to give very special thanks to Genisys Credit Union and Chief John Lyman. Without their support we would not be able to have this positive impact on over 10,000 citizens and we are sure that our 2017 programs achieved what the Chief and Genisys had envisioned.



Waterford Regional Fire Department in Action in 2017



Meeting Jay Leno and Tim Allen as they raced
Model T's on Woodward in October





Training Division – Battalion Chief Josh Dorman

The main purpose of the Waterford Regional Fire Department, Training Division is to provide a system of regular structured training programs of sufficient content and duration, designed to keep personnel informed of and proficient in performing the duties associated with job and to provide training that is required by the state of Michigan. The efficient operation of this department depends on a high degree of skill that can only be maintained by constant practice and professional effort.

Additionally, we are graded by the Insurance Service Office for our ability to put out a fire. The grading has an impact on the insurance rates in the communities that we serve. There are three main categories on which we are graded, of which, training is a large component.

Further, we are required to fulfill state and federal training requirements to ensure our readiness to serve the public. It is imperative that our personnel are trained to a degree of proficiency that keeps them and the public safe. Many lives are riding on our ability to respond to emergencies and there are many requirements that we must meet.

RESPONSIBILITIES

The Training Officer and/or Chief are responsible for monthly on-going educational training programs involving subjects required by law and recognized as national standards, including but, not limited to: fire suppression, rescue, hazardous material, driver training, fire fighter safety & survival, professional development, post-incident debriefings, department SOP's/SOG's, and new equipment in-services.



2017 GOALS

In 2017 the Waterford Regional Fire Department began with keeping our goals from the 2016 annual training report in mind. We continued to work to identify training needs and goals for the future. A recap of the goals for 2017 includes: legally mandated topics, local need topics such as ice rescue, active assailant, Lake Angelus water supply, hazardous material incidents, emphasis on SAFER grant personnel, and emphasis on our training plan.

SUCSESSES

The goals that we had great success in meeting were all of the following: high risk/low frequency events, disaster preparedness, active assailant, driver training, educating driver/engineers, continuing education for leadership, and adjusting to accommodate unforeseen training needs. It is challenging to provide training for a full time professional fire department. We continue to adjust, at times, by the minute and



certainly hourly and daily to accomplish our training needs. Our personnel do an amazing job of working to be involved and complete all necessary training; specifically, the training we attempt to plan that is required by the state.

The details of our 2017 goals are as follows; we have been following our 36 month training plan based upon MIOSHA part 74 as required by law. The plan will be utilized to guide us in making our annual training plan that is based off of the needs of our personnel and the communities we serve. We will also focus on other incidents that we refer to as high risk/low frequency events.

Recognizing our stated goals, continuing education for our leadership continues to be of major importance for us. In 2017 we did an audit of our officer's training records and found a need to complete state and federally mandated training. The classes include ICS 300 and ICS 400 where officers learn how to handle escalating and large scale incidents. To help with their development we also hosted training in association with CN Rail and Oakland County International Airport.

High risk/low frequency events that needed special attention in 2017 were joint response active assailant, hazardous materials response, and terrorist events. Our greatest success in these areas has been in disaster preparedness. We hosted Oakland County fire departments and law enforcement at our CN Rail Yard training, one in which multiple resources and our MABAS response systems were utilized to mitigate a hazardous event. We were also able to practice skills that were learned in the ICS 300 and ICS 400 escalating and large scale event classes.

The success we enjoyed in 2017 has come via highly dedicated personnel that have volunteered their time for love of the service we provide. Without the knowledge, skills, and time of dedicated personnel we would consistently fail. The best way to thank these personnel will be to continue to support them by finding and providing training specific to our dynamic environment.

CHALLENGES

In 2017 we recognized that we must keep our commitment to City of Lake Angelus in the forefront of our minds so, we practiced drafting at their dry hydrant. While we practiced water supply drills, we also recognized that our water supply plan needs to be updated to include Pontiac resources. The way we decided to address this challenge has been to review and change the L.A. response plan; a fourth engine has been added to the response guideline. We will also be adding a practical training event for 2018.

EFFECTIVENESS

The true effectiveness of our training is measured by our performance during emergency response. However, another method to measure our effectiveness is to track our training hours. The total hours of training captured in 2017 are 5,810 hours. This is an increase that doubles the hours we were able to capture in 2016. The dramatic increase is due to our emphasis on apparatus truck checks and tracking their documentation. This has been a tremendous effort by WRFD personnel to ensure public safety. Additionally, we have hired 39 more personnel with the SAFER grant; we emphasize the need to train new personnel and to document the effort. As stated, the true effectiveness of our training is that of our performance.

Ultimately our goal is not to increase training hours but, to increase our performance during an emergency response. We will do that by encouraging company level officer involvement, building annual training plans, encouraging post-incident analysis, providing high quality training for high risk/low



frequency events, training thoroughly on safety, and by educating more instructors to assist the training needs of the department. Our proficiency in our response relies on knowledge, practice, and safety. Our effectiveness is improved immeasurably when we are able to do live evolutions which make training more realistic. Many of the live training events that we put on this year were documented with pictures and are included in this report.

FIRE CADETS

Fire cadets were again part of our public education program. We helped students at several local schools learn about our profession. The program is focused on providing exposure to our profession not necessarily teaching them how to perform it. As personnel are available to assist the program we try to meet the higher standard of providing fundamental firefighter and EMS training. Some of the fundamental training cadets have been part of in 2017 includes: donning and doffing, search and rescue, air emergencies, fire extinguisher use, and emergency response.

Cadets are required to be self starters and follow an agenda created by the training officer when our personnel are not available to interact with them. Each semester their performance is reviewed according to documentation provided by the school they attend. We also require them to become CPR, First Aid, and Blood borne pathogen certified, all the certifications are provided free by WRFD. The 2017/2018 school year has included up to 7 cadets that are participating in the program. It is our goal to continue to provide young adults an opportunity to be exposed to the emergency services profession. Some of their efforts will be seen in pictures included in this report.

2017 TRAINING TOPICS

- Driver training
- Driver Training TtT (Train The Trainer)
- Large scale disaster table tops
- Large scale disaster H.O.T. (hands on training)
 - Pontiac: Train derailment with a hazardous materials component
 - Waterford: Plane crash
 - Lourdes Nursing home mock disaster
- Forcible entry
- High energy
- Active assailant preparation
 - Tactical emergency critical care (TECC)
 - Rescue Task Force
 - Active assailant conferences
- Pump operations
- Lake Angelus water supply
- Officer development
- High rise firefighting
- Fire Scenarios (H.O.T.)
 - First due company operations
 - Saving our own
- Rapid Intervention Training
- Fire ground communications



- Fire command
- FEMA/MIOSHA required officer courses
- After action reviews
 - 120 N. Edith
 - 245 S. Paddock
- Hose Testing



2018 Goal

The WRFD Training Division will continue to work to plan and provide high quality training that includes hands on training topics, classroom preparation, and required training. We will continue to make it a collaborative effort that benefits our personnel as well as the communities we serve.

2018 PROJECTED TRAINING TOPICS

- Ice Rescue
- Active assailant
- Officer development
- Station 4 area water supply
- Lake Angelus water supply practical evolution
- Fire Officer Education (FEMA/MIOSHA required)
- Extrication
- Driver Training Refresher
- Traditional Forcible Entry
- SARA TITLE III Occupancy walk-through
- Lock Out/Tag Out
- Hose Testing
- Pump Engineer Class
- Emphasis on SAFER Grant Personnel
- Emphasis on our 36 month training plan
- Truck work
- Water treatment plant walk through
- Air management
- Elevators
- Fire pre planning



Waterford Regional Fire Department in Action in 2017

TRAININGS – Saving Our Own



TRAININGS – Hands on training in a vacant commercial building



Hazardous Materials Team Report – Paul Dallas

The Waterford Regional Hazmat team is responsible for providing life safety and emergency mitigation of hazardous material situations. The team is responsible for Waterford Township, City of Lake Angelus, and the City of Pontiac. The hazmat team is part of the Oakland County Hazardous Materials Team South. The South team is comprised of the 8 Oakway departments and relies on mutual aid with each other for large scale responses. The first response area for the Waterford Regional Hazmat team handles smaller scale incidents on their own, in which the coverage area consists of highways, railways, an international airport, residential, commercial, and industrial areas. There are also several SARA Title III sites that have hazardous materials on site at all times. With the volume of truck traffic, rail traffic, and air traffic there is always a high potential for an emergency.



For the year 2017, the Hazmat team has experienced some changes for the positive thus improving both our local hazmat team and adding more experience and resources for the Oakway team as well. In the year 2016 we addressed issues for lack of participation from our members attending the Oakway training events thus putting a stop to the concerns of Oakway about our department's participation and commitment. In 2017 the team has continued to stay fresh with new training systems, such as continued attendance to newer programs like "Hazmat IQ", which is designed to help first arriving companies with size up of a hazardous materials incident. We also sent existing technicians to rail car classes involving hazardous material mitigation as well as many other classes involving homeland security type issues offered by FEMA and Oakland County. The team has continued to attend in better numbers the 4 quarterly Oakway training sessions as well as special trainings like the one WRFD assisted McLaren with outside the their ER in October involving decontamination for large scale events. The Oakway team has also changed for 2018 the training times. Instead of the 4 quarterly 6hour trainings, they will be doing 3hr monthly trainings. This will increase the hours individuals will have the ability to attend from 24 to 36 per year. In addition to all this, in 2016 WRFD sent 6 of our hazmat team members that were operations level members to hazmat technician school in Anniston Alabama. This has greatly increased our team's capabilities and making us by far the largest team in Oakway. In 2017 we again had 5 more of our Operations level team members scheduled to attend Technician school in Alabama, however due to the 2 large hurricanes in Texas and Florida in the fall of 2107 FEMA cancelled the school due to needing all their resources. We are currently working with FEMA to get those 5 members



registered into a tech school in 2018. After those five, we will be working on getting the last six of our Operations Level personnel on the team into Tech school while our SAFER manpower grant is in place making it possible to send our personnel out of state for Technician school. With some small changes to the WRFD hazmat team our roster currently has 14-Hazmat Technicians, and 11-Operations Level members bringing our team to a total of 25-members. We are continuing to evaluate the needs of the team and the levels of training that the personnel are involved.

Team leader is tasked with scheduling trainings, motivation, recruitment of members, finding grants, coordinating with the Oakway hazmat team leaders, and other related duties.

The goals of the 2018 WRFD Hazmat team are to:

- Protect the citizens and responders in Waterford, Lake Angelus, and the City of Pontiac.
- Provide team members with adequate training, and maintain minimum training required for members under OSHA 29 CFR 1910.120.
- Maintain participation with mutual aid agreement, OAKWAY.
- Assist the WRFD Training Division with yearly training for the fire department.
- Properly use allocated funds to maximize objectives of the Hazmat Team.



The objectives of the WRFD Hazmat team are to:

- Increase participation among team members.
- Continued search for grants that allow for training, or needed materials.
- Increase participation with Oakway by attending monthly trainings.
- Provide hazmat training once every few months to the WRFD personnel to improve first response awareness and efficiency.
- Educate members to a higher level of training as needed.
- Get all existing team members into Technician school.



Waterford Regional Fire Department in Action in 2017





Information & Technology – Don Claey's

With the rapid growth of technology, coordinating Information Services for the Waterford Regional Fire Department continues to present challenges in keeping the department's 140 employees connected and functioning in their positions to efficiently serve the residents of the township. With the demands and expectations that face the fire service and its community, information is in a greater demand than ever. As with any government entity or public business, functionality in our network is paramount. That stability is the result of a team of professionals in the Township's Information Services department. With our network being the primary means of information transfer or communication, its maintenance is our number one concern. Whether it's one of nearly 50 PCs or 30 mobile devices, security, availability and effectiveness are priority one.

The department has established a 1st Class Advance Life Support/EMS Program, and improved upon a reporting system that safeguards the information that is gathered in the streets. This past year the department upgraded its mobile device fleet with iPad devices that provide better connectivity and functionality for the personnel in the field. We began using a mobile data management program (Meraki) that aids in the tracking or inventory control, maintenance and deployment of these devices and expect additional benefits in 2018.



The desktop fleet of PCs had its annual 25% upgrade performed and had a behind the scenes maintenance program started that aids in the elimination of a great many slowdowns that we experienced in past years. A gigabit switch was added to the network that not only improves its speed but provides a backup system in the event of equipment failures. True commercial WiFi devices were placed within Station 1 with improved connectivity and range.

A large project was undertaken at the beginning of 2017 in the Apparatus Division for improved accountability and expenditure tracking of the repair and maintenance costs of our apparatus. This program allows us to better provide numbers to the supervisors of the department in making decisions about repairs versus replacement of equipment and apparatus. While it is in its first year of use the



rewards should be apparent in the upcoming years when we have the ability to compare and anticipate different expenses.

As our network equipment ages new pieces will be introduced and improvements will be made. Software updates will continue and upgrades to a new operating system should come this year. ESO Solutions has been providing us with a great product for a few years and provides a great means of revenue recovery for our EMS division while providing a web based system with improved functionality and stability, as CLEMIS remains our cornerstone for our reporting to the different government agencies.

The efficiency of the department hinges upon the timely completion of many different types of behind the scene tasks such as installing new equipment and/or systems, reconnection of printers, updating informational files on our command vehicles, replacing equipment that is not functioning properly, and performing updates on the different software systems that are used.

Every day presents a different challenge that we look forward to addressing in order to keep the department technology functioning at the level needed to provide thorough and efficient emergency services to the citizens of our community. The leadership of the department has facilitated the various improvements and upgrades needed this year and we appreciate and look forward to that continued support.





SCBA Equipment – Kevin Fletcher

81 SCBA's were flow tested and repaired (as needed) in order to meet NIOSH and NFPA standards.

All Firefighters and Waterford Water Department employees were FIT tested to determine proper SCBA mask sizing as required per NIOSH and NFPA standards.

The Posi-Check test equipment received a required upgrade and new software to keep the NIOSH certification. This equipment is used for flow and function testing.

Air quality tests were done quarterly on the air compressor systems at Station 1 and 7 as required by NFPA standards. Compressor maintenance was performed as needed on both compressors.



Cylinder Hydro Testing was performed on SCBA and Oxygen cylinders as required by NIOSH.

PortaCount FIT Testing machine was tested by TSI, allowing our department to FIT test our employees in a much more efficient way.

Provided training on SCBA for all new hires. New hire Fit Testing also

All 8 of our Four Gas Monitors were serviced, including the replacement of oxygen sensors. Two new Four Gas Monitor were purchased.

All fire extinguishers were serviced and inspected. Three CO2 extinguishers were replaced do to the age.

Eng. Ron Fritz served many years as a SCBA technician for us and retired in December. Lt. Jon Johnson is filling his position.

Future Requirements:

- Replacing the supplied air system on the Technical Rescue truck for confined space.
- Bauer compressor class that will allow us to provide service on station 7's compressor
- Start replacing Four Gas Monitors due to their age.
- Lt. Jon Johnson training and certified for SCBA repair, fit testing, etc.





Station Maintenance – Battalion Chief Steve Bridger

Fire Station 1- Major overhaul was performed on the HVAC system to help it operate more efficiently in the summer and winter months. The new upgrade allows the system to be remotely monitored and controlled. New carpet was installed in the main training, large conference room and one of the fire inspector offices. Commercial grade 2x2 carpet tiles were installed. New lazy boy chairs were purchased to replace the old worn out ones after many years of use on the 24 hour suppression side.

Fire Station 2- No major repairs or renovations at station 2 this year, just general maintenance. Some of the exterior trim had fallen off the building and had to be replaced with new wood and aluminum wrap.

Fire station 3- After nearly 30 years since being built, station 3 was in need a new roof. We had the shingles replaced with a 30 year shingle, we should be all set for many years to come with the roof. We had a urinal overflow this year that caused significant damage to the dorm room. All of the existing carpet had to be pulled out along with some of the drywall. We replaced the flooring with a commercial grade laminate flooring, had all the drywall repaired and the entire room was repainted.

Station 4- No major repairs or maintenance, just routine station care.

Station 5- No major maintenance or repairs. We added a water softening system to station 5 due to the nature of the hard water. We had numerous issues with the hard water damaging the appliances and the fixtures, so far it seems to have made a nice improvement.

Station 6- General Maintenance to the building, there were a couple of roof leaks that had to be addressed.

Station 7- General maintenance to the building for the most part, the boiler system in the lower level had major damage to the vent pipes caused by corrosion. The corrosion caused large holes to form in the vent pipes. All was repaired and is in good working order now. We continue to have problems with the roof leaking, we have them repaired as they appear.

Station 8- General station maintenance for station 8. There were a couple plumbing issues over the year that were addressed.

Every year we have numerous bay door issues, most commonly broken door springs and other miscellaneous hardware repairs throughout both districts.





Technical Rescue Team Report – Mike Moshier

The Waterford Regional Fire Department's Technical Rescue Team (TRT), is responsible for responding to and mitigating dangerous incidents of the following nature: confined space rescue, trench rescue, rope or high angle rescue, structural collapse, and machine rescue. Any incident involving one of these extremely dangerous elements will require a highly trained team of personnel with a large cache of specialized equipment that is not typically found on your standard front line fire apparatus. WRFD's TRT responds in Waterford, Pontiac, and Lake Angelus. The TRT is also part of OAKWAY and can and will respond anywhere in Oakland County as well as throughout the state of Michigan if needed. OAKWAY consists of eight fire departments in Oakland County, two of which are responsible for maintaining the Heavy Rescues. Those two departments are Southfield and Waterford Regional. With that comes a greater responsibility to maintain a larger cache of equipment as well as maintain a larger number of highly trained personnel. In the event of an incident needing a response from the TRT a small group of qualified personnel from each department in OAKWAY responds and works together to mitigate the hazard and attempt to save anyone in danger. The work of the TRT may be low frequency but, is of high risk to the rescuers and high reward to those involved or injured.

The goals for 2017 remained the same as previous years, train as many team members as possible and have a good turnout for the four training deployments. 2017 was an overall success from a standpoint of the goal that was set. We had 16 personnel attend 17 classes totaling 536 hours of new training. For the training deployments in 2017 we had a total of 7 attend building collapse, 8 attend rope rescue, 7 attend confined space rescue, and 6 attend trench rescue, totaling about 224 hours of refresher training. We had a representative attend all 12 of the monthly Tech Rescue Board meetings in 2017 as well. In 2017 Mike Moshier submitted two grant requests to Oakland County's GAC funding and both were approved. The first was for a Stanley power unit with 4 tools that operate off the hydraulics from the Stanley power unit (see pictures below) totaling approximately \$25,000. This will be housed on the Waterford Heavy Rescue and we should see this equipment mid 2018.



The second was for a new set of medium pressure airbags. This included two sets of air bags, one that will be housed on Waterford's heavy and the other will be placed after a needs assessment of the other OAKWAY departments. Each set includes all regulators and hoses needed and 3 airbags 1 BK, 1 CK, and 1 DK, totaling approximately \$24,000. We should see this equipment late 2018 or early 2019 (see picture below)



In 2017 we did not respond to any technical rescue incidents. However we were put on standby for two different incidents. Both were trench rescues, one in Chesterfield Township and the other in Farmington Hills.

As we look forward to 2018, we, as a team are still trying to play catch up from the last 4-5 years where we have seen a number of new members but yet little training prior to 2017. Most of the new team members and many of the previous team members have little to no gear which is a problem I would like to start correcting in 2018. Our goal for 2018 will be to see better attendance in the 4 or 5 training deployments in 2018. We would also like to see us increase the number of Rescue Specialists (a rescuer trained to Technician level in all disciplines) this year. This would mean sending team members to various different classes. I have begun compiling a list of what classes are needed for what personnel so we can start enrolling in the 2018 classes. We also have a lot of equipment that either needs to be replaced or updated. One of the primary needs for equipment is to replace our trench panels. The current panels are not up to the new standards recommended. We hope to start reconfiguring the tech rescue truck in preparation for the new equipment and make better use of space for the current equipment. 2018 looks very promising as we are seeing more and more interest in the TRT.



2017 Calls by Incident Type

FIRES

	Incident Count	
100 - Fire, other	32	
111 - Building fire	107	
112 - Fires in structures other than in a building	5	
113 - Cooking fire, confined to container	94	
114 - Chimney or flue fire, confined to chimney or flue	2	
115 - Incinerator overload or malfunction, fire confined	1	
118 - Trash or rubbish fire, contained	32	
130 - Mobile property (vehicle) fire, other	1	
131 - Passenger vehicle fire	61	
132 - Road freight or transport vehicle fire	2	
134 - Water vehicle fire	2	
140 - Natural vegetation fire, other	2	
142 - Brush, or brush and grass mixture fire	57	
143 - Grass fire	2	
150 - Outside rubbish fire, other	17	
151 - Outside rubbish, trash or waste fire	24	
152 - Garbage dump or sanitary landfill fire	1	
154 - Dumpster or other outside trash receptacle fire	14	
160 - Special outside fire, other	1	
161 - Outside storage fire	1	
162 - Outside equipment fire	2	
	460	3.5%

EMS / Rescue Calls

3 - Rescue & Emergency Medical Service Incidents	6	
300 - Rescue, emergency medical call (EMS) call, other	7	
311 - Medical assist, assist EMS crew	458	
32 - Emergency medical service (EMS)	13	
320 - Emergency medical service, other	38	
321 - EMS call, excluding vehicle accident with injury	7,605	
322 - Vehicle accident with injuries	629	
3221 - Vehicle accident with injuries and extrication	12	
323 - Motor vehicle/pedestrian accident (MV Ped)	27	
324 - Motor vehicle accident with no injuries	109	
3241 - Vehicle accident with no injuries, with extrication	1	
340 - Search, other	1	
350 - Extrication, rescue, other	1	
351 - Extrication of victim(s) from building/structure	1	
352 - Extrication of victim(s) from vehicle	1	
353 - Removal of victim(s) from stalled elevator	11	
361 - Swimming/recreational water areas rescue	1	
362 - Ice rescue	1	
381 - Rescue or EMS standby	6	
	8,928	68.2%



HAZARDOUS CONDITIONS

400 - Hazardous condition, other	3	
410 - Flammable gas or liquid condition, other	1	
411 - Gasoline or other flammable liquid spill	6	
412 - Gas leak (natural gas or LPG)	88	
413 - Oil or other combustible liquid spill	4	
421 - Chemical hazard (no spill or leak)	2	
422 - Chemical spill or leak	1	
423 - Refrigeration leak	1	
424 - Carbon monoxide incident	57	
440 - Electrical wiring/equipment problem, other	20	
441 - Heat from short circuit (wiring), defective/worn	6	
442 - Overheated motor	4	
443 - Light ballast breakdown	1	
444 - Power line down	361	
445 - Arcing, shorted electrical equipment	25	
451 - Biological hazard, confirmed or suspected	1	
461 - Building or structure weakened or collapsed	1	
462 - Aircraft standby	1	
463 - Vehicle accident, general cleanup	4	
471 - Explosive, bomb removal (for bomb scare, use 721)	1	
480 - Attempted burning, illegal action, other	1	
481 - Attempt to burn	1	
	590	4.5%

SERVICE CALLS

500 - Service Call, other	21	
510 - Person in distress, other	16	
511 - Lock-out	4	
512 - Ring or jewelry removal	1	
520 - Water problem, other	3	
522 - Water or steam leak	1	
531 - Smoke or odor removal	23	
540 - Animal problem, other	1	
541 - Animal problem	1	
542 - Animal rescue	1	
55 - Public service assistance	1	
550 - Public service assistance, other	97	
551 - Assist police or other governmental agency	71	
552 - Police matter	6	
553 - Public service	41	
554 - Assist invalid	361	
555 - Defective elevator, no occupants	1	
561 - Unauthorized burning	337	
571 - Cover assignment, standby, moveup	3	
	990	7.6%



GOOD INTENT CALLS

600 - Good intent call, other	202	
611 - Dispatched & cancelled en route	564	
6111 - Cancelled Prior to Dispatch	254	
611E - EMS: Dispatched & cancelled en route	48	
621 - Wrong location	2	
622 - No incident found on arrival at dispatch address	128	
631 - Authorized controlled burning	16	
641 - Vicinity alarm (incident in other location)	1	
650 - Steam, other gas mistaken for smoke, other	3	
651 - Smoke scare, odor of smoke	88	
652 - Steam, vapor, fog or dust thought to be smoke	7	
653 - Barbecue, tar kettle	2	
661 - EMS call, party transported by non-fire agency	5	
671 - Hazmat release investigation w/ no hazmat	2	
	1,322	10.1%

FALSE ALARMS

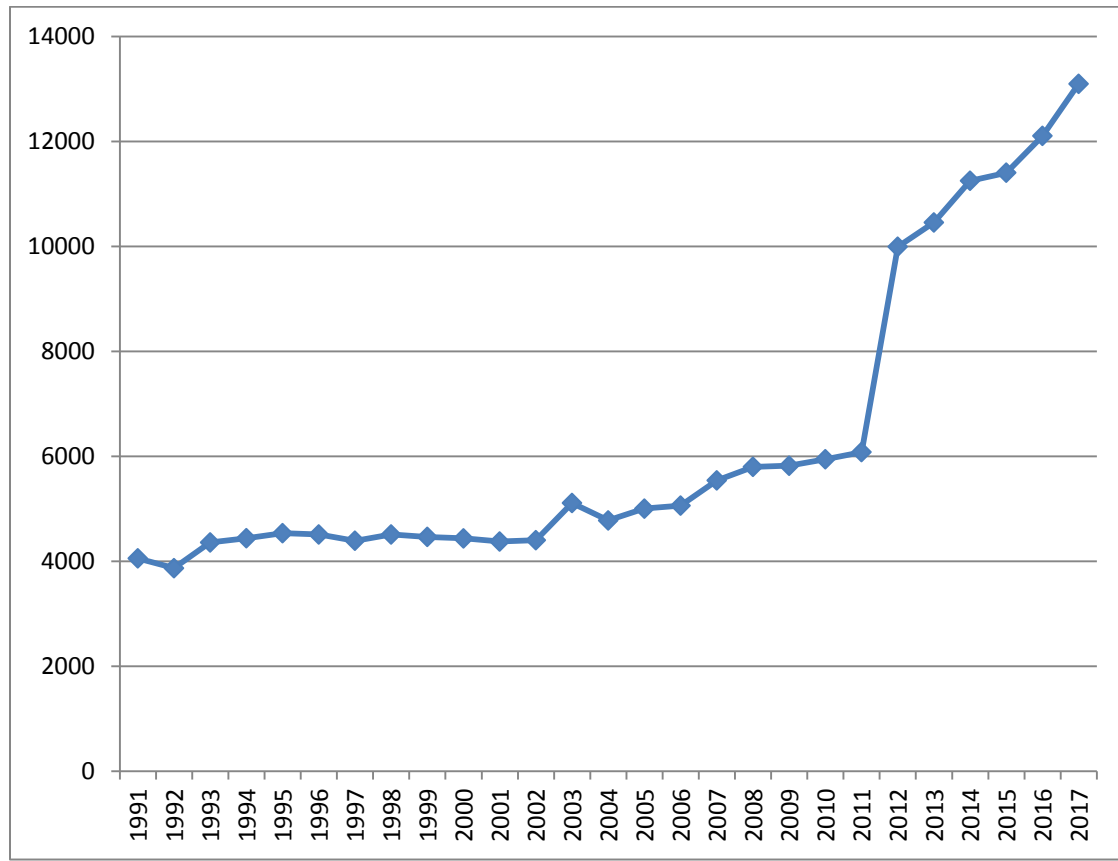
700 - False alarm or false call, other	63	
710 - Malicious, mischievous false call, other	3	
714 - Central station, malicious false alarm	1	
721 - Bomb scare - no bomb	1	
730 - System malfunction, other	2	
731 - Sprinkler activation due to malfunction	4	
733 - Smoke detector activation due to malfunction	15	
734 - Heat detector activation due to malfunction	2	
735 - Alarm system sounded due to malfunction	38	
736 - CO detector activation due to malfunction	45	
740 - Unintentional transmission of alarm, other	7	
742 - Extinguishing system activation	15	
743 - Smoke detector activation, no fire - unintentional	18	
744 - Detector activation, no fire - unintentional	54	
745 - Alarm system sounded, no fire - unintentional	482	
7451 - EMS Alarm system sounded, unintentional	39	
746 - Carbon monoxide detector activation, no CO	16	
	805	6.2%

13,095**CASUALTIES**

Civilian Injuries	2
Civilian Deaths - Pontiac	3
Civilian Deaths – Waterford	1
Firefighter Injuries	1

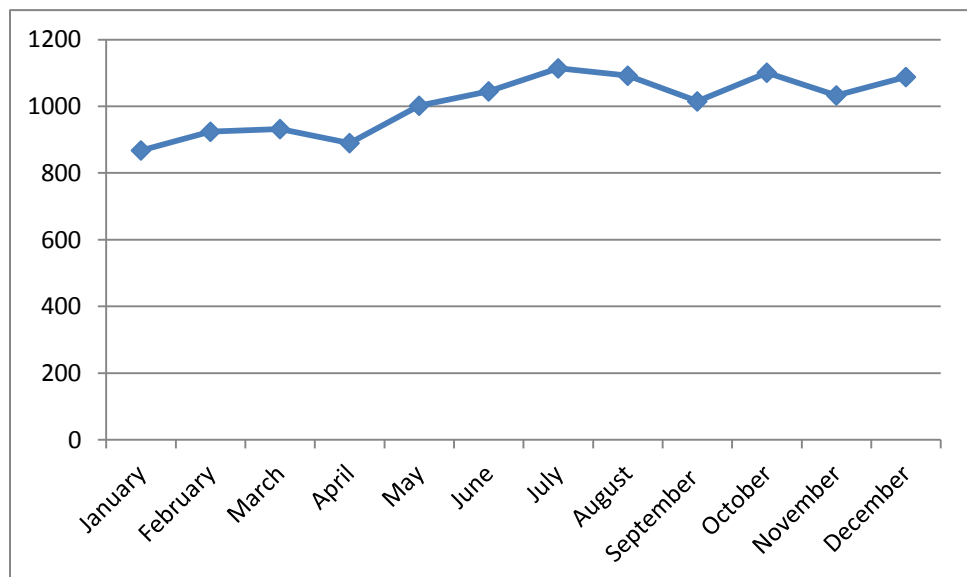


Calls by the Year 1990-2017



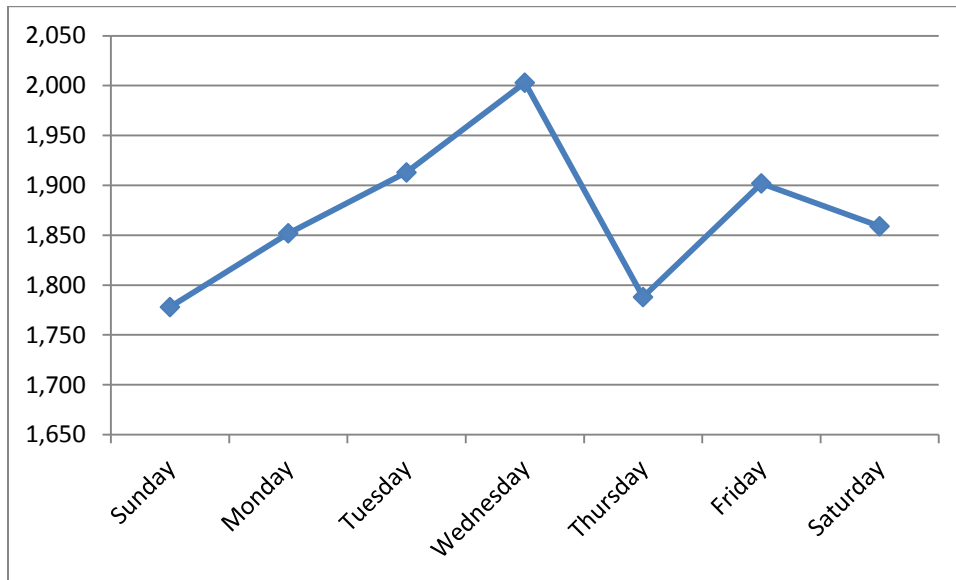
Calls by the Month

July was the busiest month. January was the slowest.



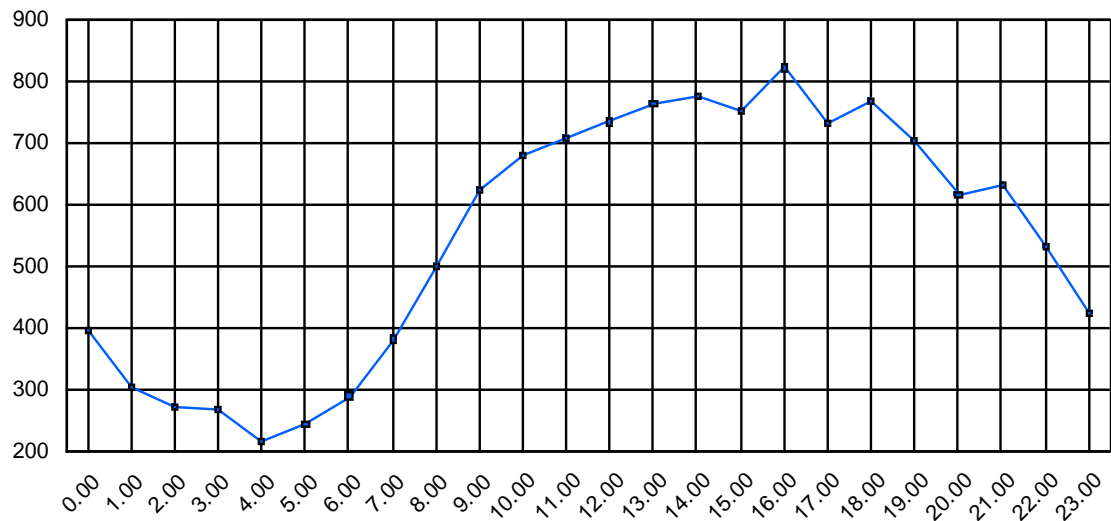
Calls by Day of the Week

Wednesday is the busiest day of the week. Sunday is the slowest.



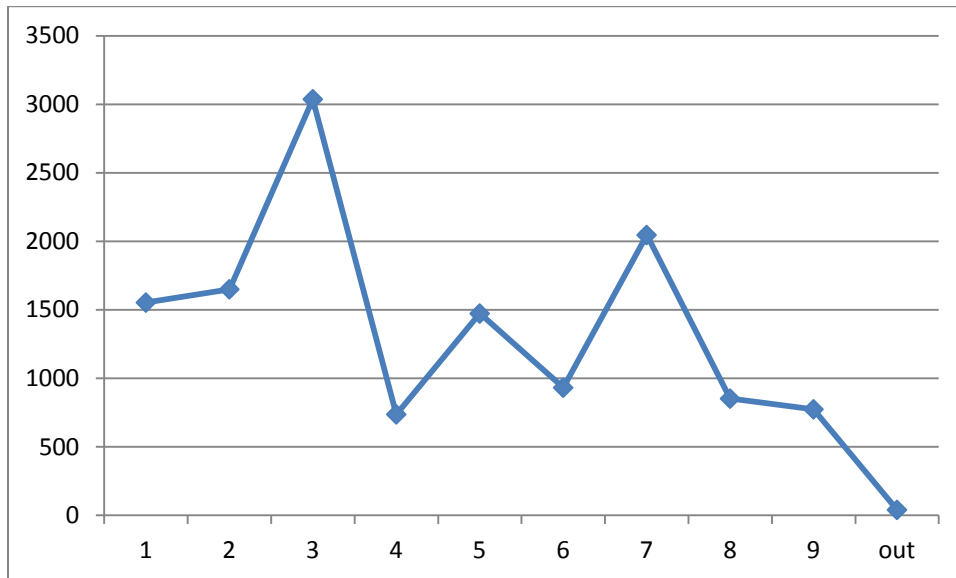
Calls by time of day

4 pm is the busiest times during the day, while 4am is the slowest.

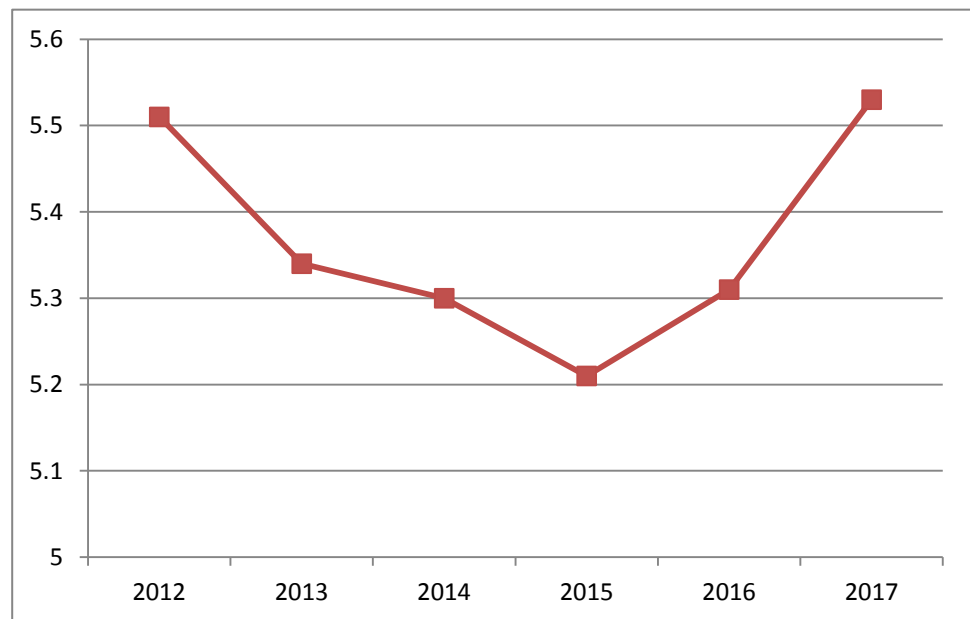


Calls by Fire Station

Station #3 is the busiest. Station #4 is the slowest.

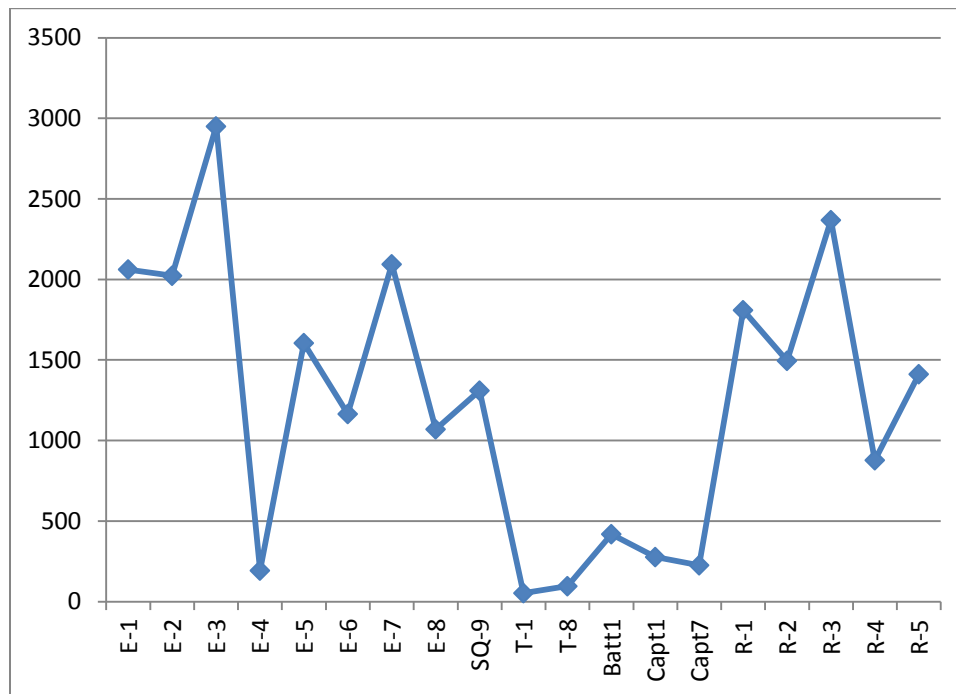


Average Response Times by Year



Calls by Fire Department Unit

Engine 3 is the busiest Engine. Rescue 3 is the busiest Rescue.



City of Lake Angelus



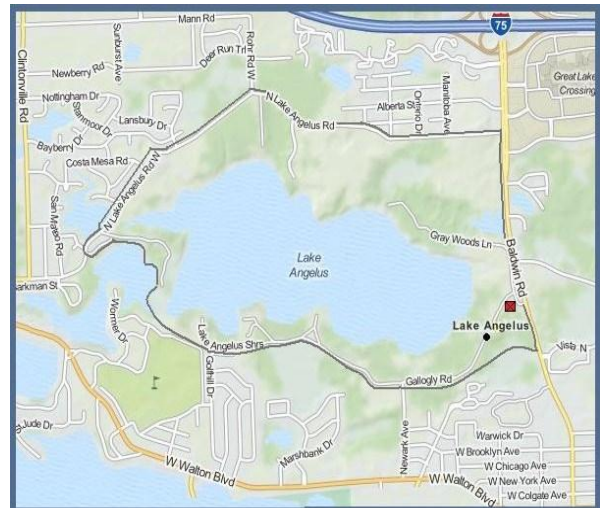
The Waterford Regional Fire Department provides fire and paramedic emergency services to the entire City of Lake Angelus. Fire Station 2 serves the West portion and Station 6 for the East portion. However, any of our nine fire stations are capable of providing back up coverage and do so as necessary.

Chief Lyman attended a Lake Angelus City Council meeting during the year. The annual report was presented including a review of the services provided and our commitment to the City of Lake Angelus and its residents.

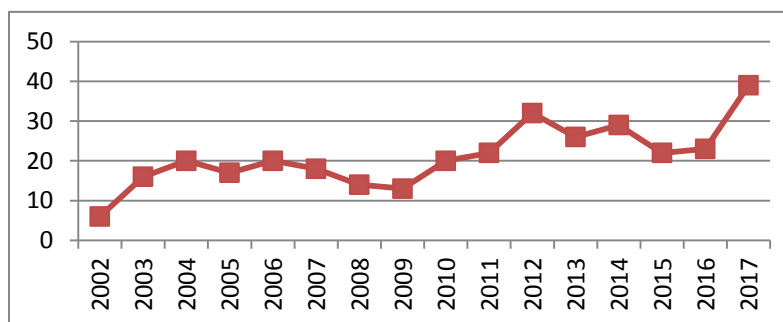
Fire Department Command Staff conducted a review of the water supply plan for the City of Lake Angelus and made changes to it as appropriate.

2017 Call Volume for Lake Angelus

House Fire	1
Other Fires	4
EMS Calls	15
Gas Leak	1
Power Line Down	2
Smoke Investigation	1
Carbon Monoxide Alarm	1
Smoke Detector Alarm	2
Fire Alarm	2
Cancelled Enroute	7
False Alarm	1
TOTAL	39



Lake Angelus Calls by Year





City of Pontiac

Waterford Fire Department began providing emergency services to the City of Pontiac on February 1, 2012. Four fire stations are staffed 24/7/365 in Pontiac with 13 firefighters. We continue to provide basic life support to the Pontiac residents for EMS calls, working alongside Star EMS and the Oakland County Sheriff's Office.

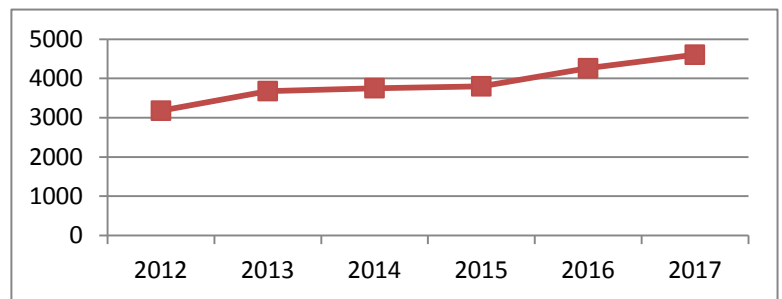
Total alarms for 2017 were at 4,605, which is up by 8% in Pontiac; fire calls declined by nearly 20%. 87 fires were single family homes, and 60 were apartment fires. We had 3 fire deaths in Pontiac for 2017.

Chief Lyman and Deputy Chief Covey meet with the City Administrator and the Mayor on a quarterly basis and the Public Safety Sub-committee for City council on a monthly basis.

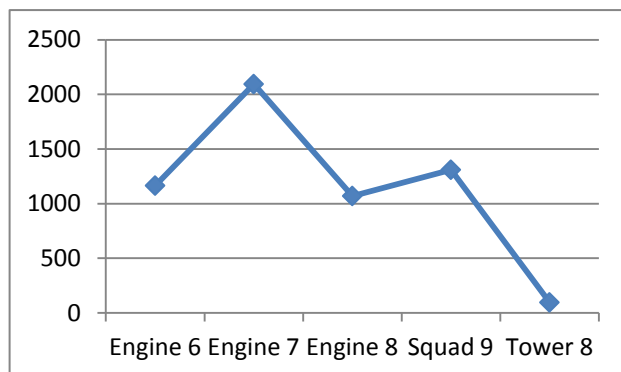
2017 Incident Types in Pontiac

Fires	313
Overpressure/Explosion	0
EMS calls	2469
Hazrdous Conditions	306
Public Service	300
Good Intent	751
False Alarms	426
System Malfunctions	39
Other - Non Fires	1
Total	4605

Call Volume in Pontiac by the year



2016 Pontiac Fire Units Response Chart



2017 Calls by Pontiac Fire Stations Area

