

Bellingham Fire Department

ANNUAL REPORT
2017



Helping People Every Day



**Fire Chief
Bill Newbold**

2017 marked a year of change for the Bellingham Fire Department. And much change continues as we prepare for the future in meeting our ever-increasing number of calls for service, while at the same time continuing to deliver the high quality, timely, level of service you have come to expect from your fire department.

As part of this change we have hired a number of new personnel in our department; some to fill vacated positions, some to front-load our preparedness in anticipation of attrition, and some to expand our capabilities to meet service demands. In our overall department administration we hired Kristia Peschka and Olivia (Liv) Sund. In our Fire and EMS dispatch center we hired two new dispatchers, Megan MacPhee and Ariella Ross. Additionally, two new dispatch positions were authorized in late December to improve our processing time of fire and medical calls during the busiest time of the day; these will be filled early in 2018. We also hired eight new firefighters in April who all successfully completed the department's 12-week fire academy, they are, Daisy Frearson, Levi Haines, Joshua Hoffman, John Lewis, Lucas Nardella, Sarah Pernick, Colin Smith and Tim Van Dyke. I hope you have the opportunity to meet these new folks as they are eager to continue our tradition of exceptional service.

In the beginning of 2017 we received approval from City Council to purchase a new fire engine to assist in replacing our aging fleet of engines. Throughout 2017 and into the next few years we will continue with a replacement plan to retire our oldest apparatus and bring in new equipment. Also in early 2017 we changed out our aging computer aided dispatch (CAD) software. This was a joint project with Bellingham Police Department and Fire Department, as the single CAD software is utilized by both Law Enforcement and Fire/EMS dispatchers. 2017 was the first year of operating our EMS system under the new, voter approved, countywide EMS levy. With that, and in alignment with the final report made available to the public, we reinstated our Medical Services Officer in the Bellingham Fire Department and worked closely with Whatcom County on selecting and implementing a countywide records management system and electronic patient care reporting system. Both are technology products that bring substantial efficiency in county wide operations.

Throughout the year our leadership team engaged with an executive training firm to provide ongoing leadership training. This was a team approach to include all of our chief officers, labor leaders and key leaders within the department. The training was inspiring and a great opportunity for all of us to learn together and collectively better define our organization as we move into the future. And lastly, and likely the biggest item as we look forward, is the hard work our City leaders, Staff and Fire Department personnel have been doing to research and evaluate the formation of a Regional Fire Authority (RFA) between the City of Bellingham Fire Department and Whatcom County Fire District 8. This has been a very comprehensive effort as we take a look at the plausibility of the concept and present items to the RFA Planning Committee for their consideration in developing an RFA plan. The RFA Planning Committee is comprised of three elected officials from each existing governing body, The City of Bellingham and Fire District 8, for a total of six members. Please visit www.bellinghamrfa.org for more information.

We are proud to serve our community and value the public trust you place in our hands each and every day. Thank you for your support. Please remember to take time to visit your neighborhood fire station and meet the wonderful men and women of our department who are committed to "*Helping People Every Day.*"



Message from the Chief

The Operations Section is responsible for providing direct fire and emergency medical services (EMS) to over 90,000 residents of the City of Bellingham and Fire District 8. These services are provide 24 hours a day out of 8 fire stations located throughout our 50 square mile service area. Each day we have 32 personnel on duty that include our battalion chief, EMS Captain, 3 paramedic units, and 8 fire companies that cross-staff fire apparatus with basic life support ambulances. To achieve this staffing we count on our 120 career City of Bellingham firefighters and paramedics along with 25 volunteer firefighters from Whatcom County Fire District 8.

In 2017, the Operations Division responded to nearly 18,500 calls for service; this was a 10% increase in calls over 2016. Calls for service include fires, medical emergencies, responses to activated alarms, and many other public services that support our mission of Helping People Every Day.

In 2017, we started a trial to look at the location of where our ladder trucks were stationed and to see if a better model for staffing the ladder truck would provide a more effective use of the ladder truck crew. With that change we "swapped" crews from Station 5 (Northwest Ave) and Station 6 (Deemer Road). This change allowed us to move the ladder truck to Station 5 and make it the primary ladder truck crew for the entire service area. Along with that our crew that staff's the fire boat Salish Star is now responding out of Station 6. Preliminary data from this trial shows it to be a more effective and efficient use of crews and we will be continuing the trial into 2018.

2017 also saw the return of our Medical Services Officer to lead our EMS Division. Mid-way through the year EMS Captain Mannix McDonnell was selected to fill the Division Chief role for the EMS division. Chief McDonnell has been off to a great start and is working hard to ensure that our department's EMS responders are well trained and equipped, and ensure that our Paramedic program meets the needs of citizens throughout Whatcom County.

Our Training Division was hard at work in 2017 putting on hundreds of hours of continuing education and training for our operations personnel. In addition to this ongoing training, the division put on a 12 week career recruit academy and coordinated two volunteer recruit academies. As we look forward to the future we will be welcoming a new fire engine into our fleet to replace a 21 year old engine, and starting the ordering process for a new ladder truck to replace our 20 year old ladder truck. These two purchases represent approximately \$2 million investment in our continued effort to stay response ready.

For further information on 2017 accomplishments and stats, check out the division reports from our training and EMS division chiefs, as well as our 2017 Incident Data section.



**Assistant Chief
Bill Hewett**

Operations Division





**Fire Marshal
Ron Richard**

The Life Safety Division leads the fire department's community risk reduction efforts through a variety of proactive educational, engineering, and enforcement activities. These activities include public education, land use planning, construction plan review, fire alarm and sprinkler system acceptance testing, new and existing building inspections, hazardous operations permit inspections, fire code enforcement, and investigation of fires and other hazards. The division is staffed with five personnel: a Division Chief/Fire Marshal, a Senior Fire Inspector, two Fire Inspectors, and a Permit Technician. With the goal of improving customer service to the development community through an increased presence at the city's Permit Center, the Life Safety Division moved operations to City Hall in September.

In 2017, the city of Bellingham continued to experience a high volume of development activity. During the year, the Life Safety Division saw a 44% increase in new construction plan reviews and a 23% increase in new construction inspections over 2016's heightened numbers. Meanwhile, our division more than doubled the number of existing building and hazardous operations inspections performed in 2016 with 330 inspections. Despite this challenging workload, Life Safety Division personnel successfully obtained two additional International Code Council (ICC) Plans Examiner certifications, two Fire Inspector II certifications, and two Fire Inspector I certifications in 2017.

Public education efforts continued to put a high priority on delivery of fire safety education to our community's 2nd graders. The Public Education team, in partnership with the American Red Cross, reached 630 students at 13 public and private schools within the City of Bellingham and Whatcom County Fire District 8, including the Lummi Nation. The interactive curriculum focused on the importance of having working household smoke alarms, knowing two paths out of each room, crawling low beneath smoke to "get outside, stay outside," pre-planning a family meeting place outside the home, and practicing the home escape plan twice per year. Another 60 educational outreach events provided learning opportunities for an additional 4,000 children and adults.

To improve 3rd party inspection report efficiencies (and to eliminate paper report generation and storage), the Life Safety Division implemented a web-based inspection reporting system in July. This system, which provides automatic notification to building owners of approaching inspection due dates, manages the annual confidence testing and repair work performed on the 3,500+ fire alarm, sprinkler, and other life safety systems present in the city of Bellingham. Life Safety Division fire investigators conducted 19 structure fire investigations in 2017. While Fire Captains determine fire origin and cause for most fires in Bellingham, our division's certified fire investigators are called to investigate fires with high dollar loss, injuries, complex fire scenes, or indications of arson involvement.



Life Safety Division

With the successful passing of the 2016 Whatcom County Emergency Medical Services (EMS) Levy, our 2017 budget enabled the Bellingham Fire Department to reintroduce and promote a Division Chief of Emergency Medical Services. Responsibilities include providing leadership to Bellingham Fire Department's Advanced Life Support (ALS) and Basic Life Support (BLS) Emergency Medical Services programs, with a focus on creating a data driven, evidence based medical care system. Today is a new opportunity to "Set the EMS agenda into the future for the Bellingham Fire Department." The EMS Division has developed a series of criteria to guide future decisions; those include:

1. Developing a data driven evidenced based medical care system.
2. Use of analytics to measure our successes or failures.
3. Acknowledge and correct our failures!
4. Be relevant to the community we serve, learn and be responsive to community needs.
5. Evolve EMS responses, sending appropriate resources to evolving types of EMS incidents.
6. Cultivate in our workforce a deep empathy and compassion for those whom we serve, as we deliver cutting edge medicine.
7. Communicate with our community and community partners at every opportunity.

During 2017, our Fire Department staff researched and developed a new and improved electronic report writing program (ePCR). This program is lauded as being more end-user configurable, and is hoped to provide easier access to incident data as well as system and provider performance analytics.

Looking to the future and managing our Supervising Physician succession planning, the Fire Department has hired Dr. Emily Junck, MD. Hiring Emily, as she prefers to be called, is a first for Bellingham, and one of the first female EMS Supervising Physician appointments in the State of Washington. Emily joins us in 2018 and will transition to assuming full responsibilities for Bellingham Fire Department Supervising Physician duties, while receiving mentorship from one of the profession's most experienced, successful, iconic personality's, Dr. Marvin Wayne. We are excited for the fresh new perspective that Emily will bring, appreciative of her experience resulting from a post medical school four year residency at the University of Washington, Division of Emergency Medicine. Emily is a published author and frequent presenter with the King County / Seattle Medic One Program and other medical communities, to mention just a few of her qualifications.

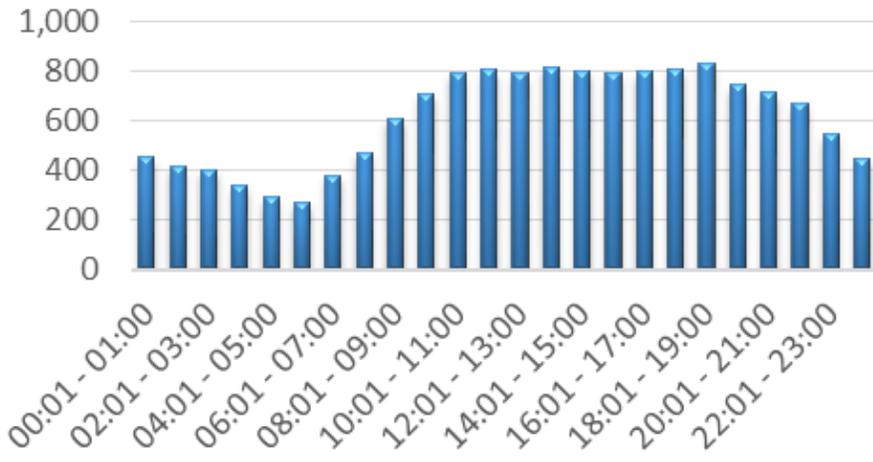


**M.S.O.
Mannix McDonnell**

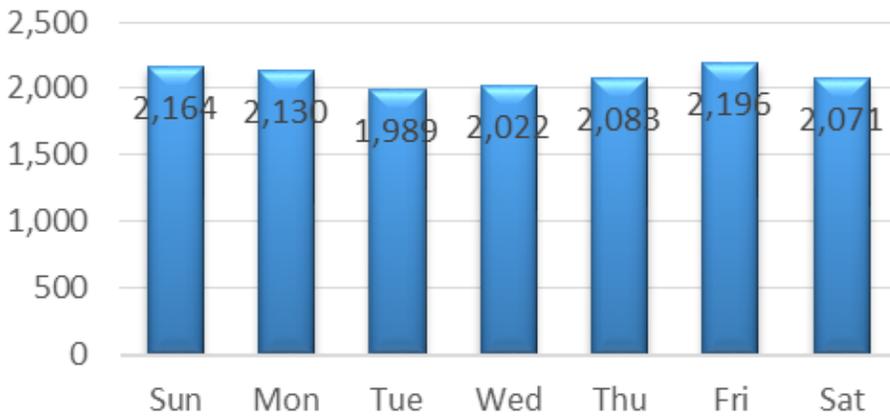
Fire / EMS Response Operations Division



2017 EMS Call Distribution by Hour of The Day



2017 EMS Call Distribution by Day of The Week



In 2017, the Bellingham Fire Department Paramedic and Aid Units responded to 14,655 EMS incidents, a 3.5% increase on the previous year's EMS 911 incidents. (Paramedic Units respond to EMS incidents outside the City of Bellingham city limits).

ALS and BLS EMS units are busy responding on incidents during all hours of the day, and consistently throughout each day of the week.

Within the Bellingham city limits, data reviewed for the last 5 years indicate EMS incidents have increased 26%, with a marked increase of 101% for high frequency callers and low acuity incidents.

In 2017, our Fire Department Community Paramedic teamed up with two Intensive Case Managers, part of the City of Bellingham's Community Development program. The case managers are now imbedded within the Fire Department, and work alongside the Community Paramedic resolving high frequency 911 callers.

Fire / EMS Response Operations Division





The Training Division coordinates daily, monthly, quarterly, and annual training to prepare our firefighters for challenges faced in the line of duty. This training is provided through educational classes, scenario based training, and multi-company operations. Most of the scenario based training is provided by "Training Groups" made up of subject matter experts within the department.

Bellingham Fire Department and Whatcom County Fire District #8 firefighters completed approximately 30,000 hours of training in 2017. This included training in Firefighting, EMS, Physical Fitness, Surface Water Rescue, Motor Vehicle Extrication, Adverse Terrain, Forcible Entry, Marine Firefighting, Firefighter Survival, Multi-Company Operations, Swift Water Rescue, and other topics.

Peer Fitness Trainers implemented the "Functional Movement Screen" for our firefighters as a new addition to our Health and Wellness program in 2017. This screen identifies movement limitations that may hinder performance and lead to injury. Corrective Exercises are provided to help improve movement, optimize performance, and reduce the risk of injury.

Captain Matt Munger has returned to Engine 1 after three years of service in the Training Division. We appreciate his dedication, hard work, and vision for training. His expertise in Company Officer Development, Modern Fire Behavior, and other areas will benefit our Fire Department for years to come.

The Training Division strives to enhance firefighter safety and performance through frequent, high quality training based on current industry standards and regulatory requirements. We are dedicated to providing exceptional emergency services to our community while ensuring that our firefighters perform at a high level, avoid injury, and return home safely after each shift. We are looking forward to another safe and productive year in 2018.



Division Chief Ryan Provencher



Training Division

The Communications Division and the Prospect Communications Center provide Whatcom County-wide Fire and Emergency Medical Service (EMS) dispatch services to 14 Fire and EMS Agencies. Twelve Fire/EMS Dispatchers, one Communications Operations Officer and one Division Chief provide around the clock lifesaving emergency fire/medical instructions and triage to 911 callers. While dispatching emergency Fire/EMS units and monitoring several emergency radio frequencies.

In 2017, Prospect dispatched 27,648 Fire/EMS emergency incidents countywide, an increase of 2,824 incidents or 11.37% over 2016's 24,824 incidents. This large increase, in addition to call for service increases over the last 10 years, with no staffing increases, has resulted in Prospect struggling to meet our standards for rapid dispatch times, especially during peak hours of the day. This resulted in Prospect requesting and gaining approval from the What-Comm Administrative Board for 2 additional Fire/EMS Dispatchers during the peak hours of the day. These 2 Dispatchers will provide a 7 day per week "power shift", from 10:30 am to 10:30 pm, to meet call demand during our busiest time of day. We hope to have new Fire/EMS Dispatchers trained and ready to start the "power shift" in July 2018. Equipment improvements included a new digital 911 phone system. This new Intrado Viper phone system is IP based, enabling more efficient handling of 911 calls.

We continue to improve our data collection and reporting, in an effort to strengthen our quality assurance programs with the goal of constant improvement in our delivery of Emergency Fire/EMS Dispatching. In 2017, Prospect supported the selection of a new records management system (RMS) from ImageTrend. The ImageTrend records management system will be implemented in 2018, first in Bellingham and soon after that, countywide. For the first time ever, this will enable one data collection and mining source for Fire/EMS records across all of Whatcom County.

In April 2017, Prospect and our Law Enforcement Dispatch partner, What-Comm, implemented our new Versaterm Computer Aided Dispatch (CAD) software. The CAD System is the heart of our 911 system and essential for command and control of Whatcom County's Emergency Response. The new CAD is based on GIS mapping and provides Fire/EMS first responders with improved address and active emergency vehicle location.

The new computer aided dispatch system was implemented on time and on budget. Versaterm has proven to be an excellent partner and has worked with Prospect to continually add enhancements to CAD that will improve emergency dispatch services to the citizens of Whatcom County.



**Division Chief
Rob Wilson**

Communications Division





**Emergency Coordinator
Paul Gazdik**

The City of Bellingham's Office of Emergency Management works closely with city departments, neighborhoods, and other local jurisdictions to prepare for, respond to, mitigate, and recover from natural or man-made disasters. Disasters are major events that can strike anywhere and at anytime. In a disaster, traditional 9-1-1 and First Responder capabilities such as fire, police, medics, and utility personnel can be quickly overwhelmed and unable to immediately assist individuals.

After a year of engaging in emergency preparedness with our residents in their neighborhoods, the Office of Emergency Management decided to invite the community to a disaster preparedness fair. With help from Western Washington University interns Kenzi Lacey, Patrick Greenman, and Shelby Perston, our office put on an event called Gear Up! We brought our message of resiliency in the hopes of engaging what FEMA calls the Whole Community Concept.

As a concept, Whole Community is a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interests.

As part of our Gear Up! event we had demonstrations on how to prepare for all hazards, listened to attendees concerns regarding disasters, and conferred on unique ways to be prepared. We saw about 400 residents over the course of 4 hours during our Sunday event at Depot Market. Gear Up! had participation from the Bellingham Fire Department, Puget Sound Energy, Whatcom County Community Emergency Response Team, Whatcom County Humane Society, Northwest Region Red Cross, and the Whatcom County Emergency Communication Group.



Our office also worked with the University of Washington this year to secure a one-day Bakken crude oil course hosted at the Whatcom Unified Emergency Coordinator Center. We continued our planning effort with the City Size-Up earthquake drills and encouraged all city personnel to participate in the Great Washington Shake Out. Our office also engaged more actively in the digital world. Utilizing our shared Whatcom Unified Emergency Management Facebook page, we

saw an increase viewership of 500 followers in the past year. Lastly, our Comprehensive Emergency Management Plan was updated during the run up to the Cascadia Rising exercise last year. The updates were submitted to the state this year and were approved.



Emergency Management Division & Community Preparedness

Station Information





Station 1 1800 Broadway Street

**Battalion 1
Engine 1
Aid 1
EMS 1
EMS 110
Medic 1
Medic 2**

11,828 Responses in 2017



**Engine 2
Aid 2**

Station 2 1590 Harris Avenue

1,820 Responses in 2017



**Engine 3
Aid 3**

Station 3 1111 Billy Frank Jr Street

3,255 Responses in 2017



**Engine 4
Aid 4**

Station 4 2306 Yew Street

2,531 Responses in 2017



**Ladder 5
Aid 5**

Station 5 3315 Northwest Ave

1,144 Responses in 2017



Medic 10

Medic 10 858 East Smith Road

2,524 Responses in 2017

*Salish
Star*



Salish Star 722 Coho Way

**2,416 Responses in 2017
*including The Salish Star***

**Engine 6
Aid 6**



Station 6 4060 Deemer Road



**Engine 31
Aid 31**

Station 31 752 Marine Drive

1,225 Responses in 2017



**Engine 34
Aid 34**

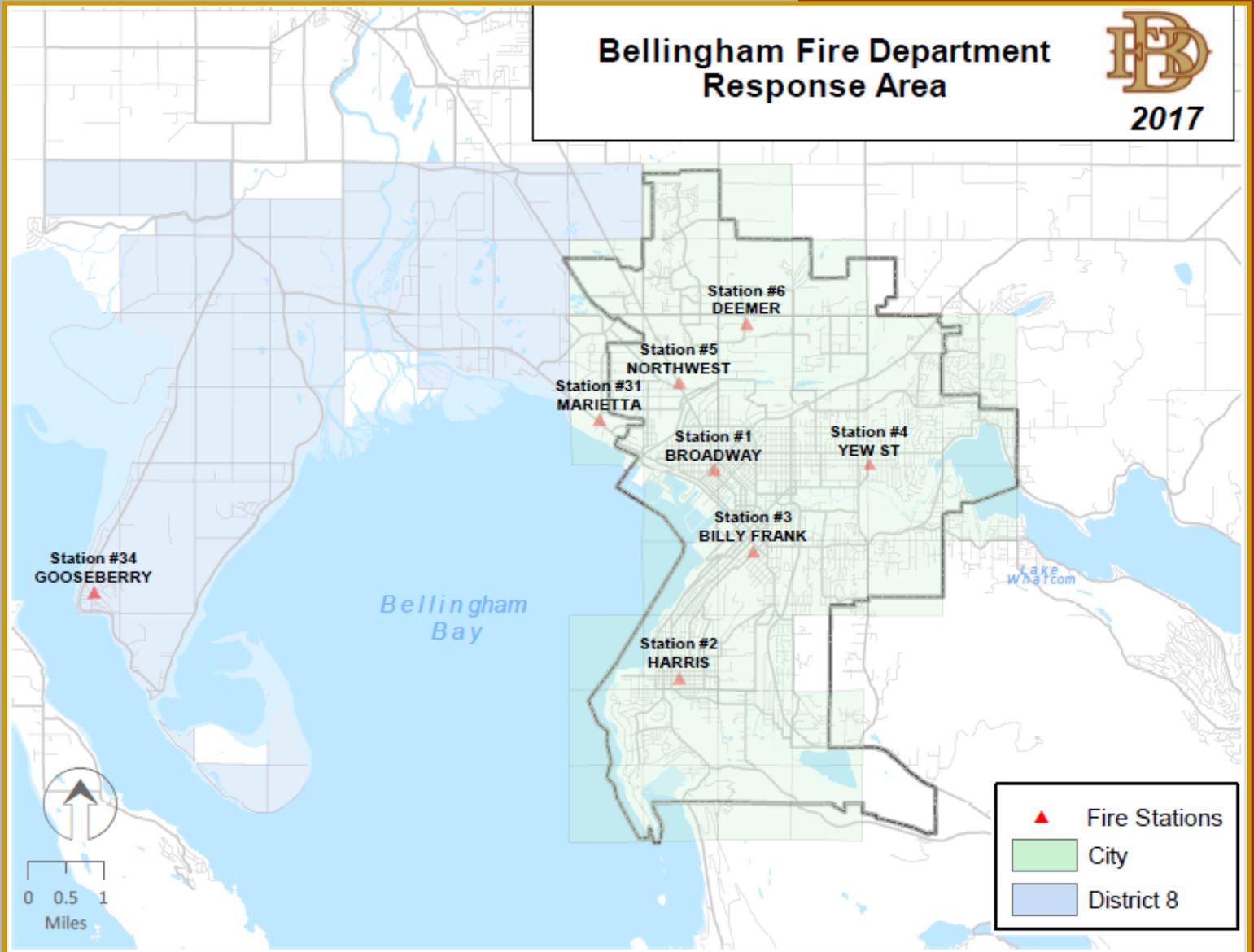
Station 34 2600 McKenzie Road

893 Responses in 2017

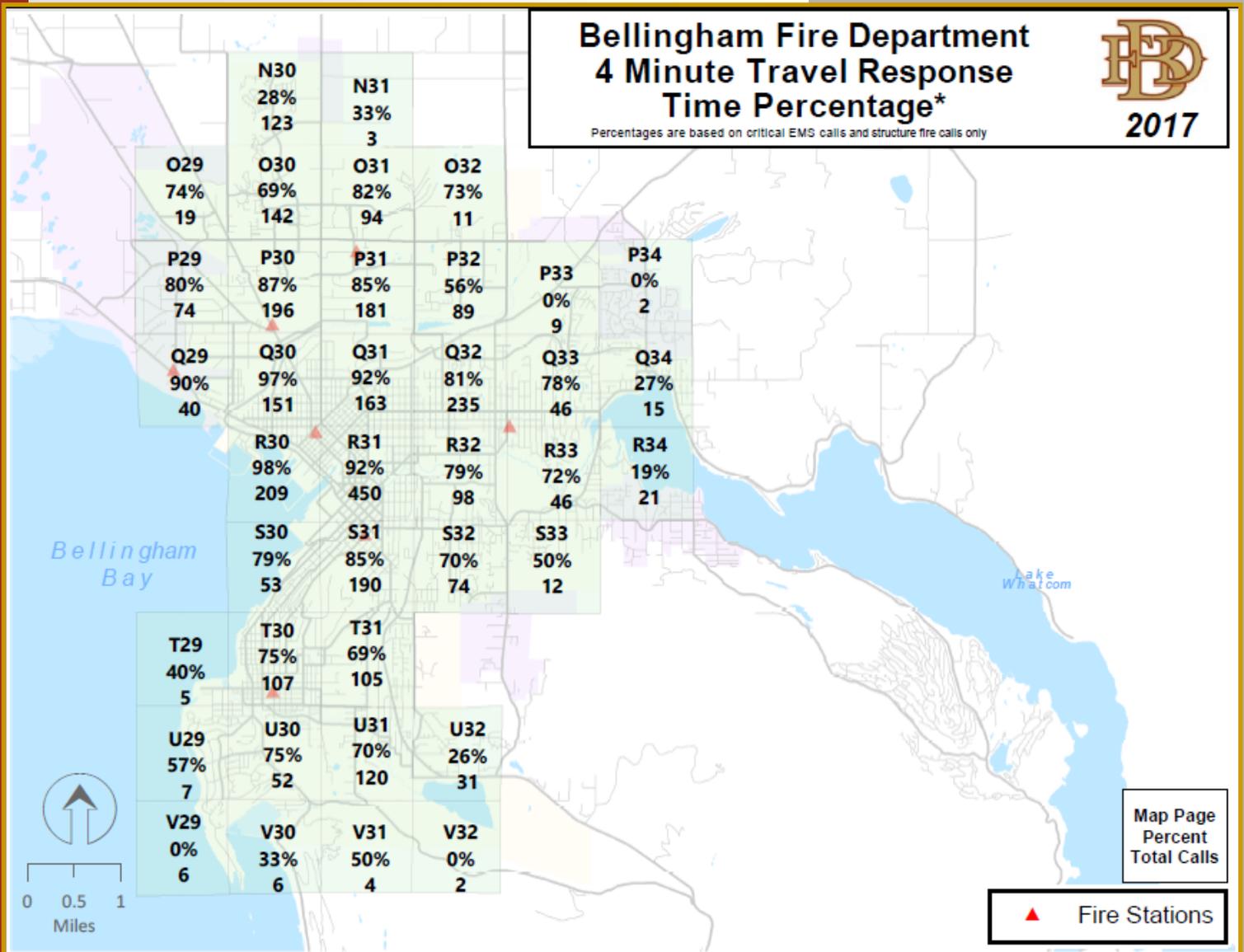
2017 Incident Data



Fire Response Area

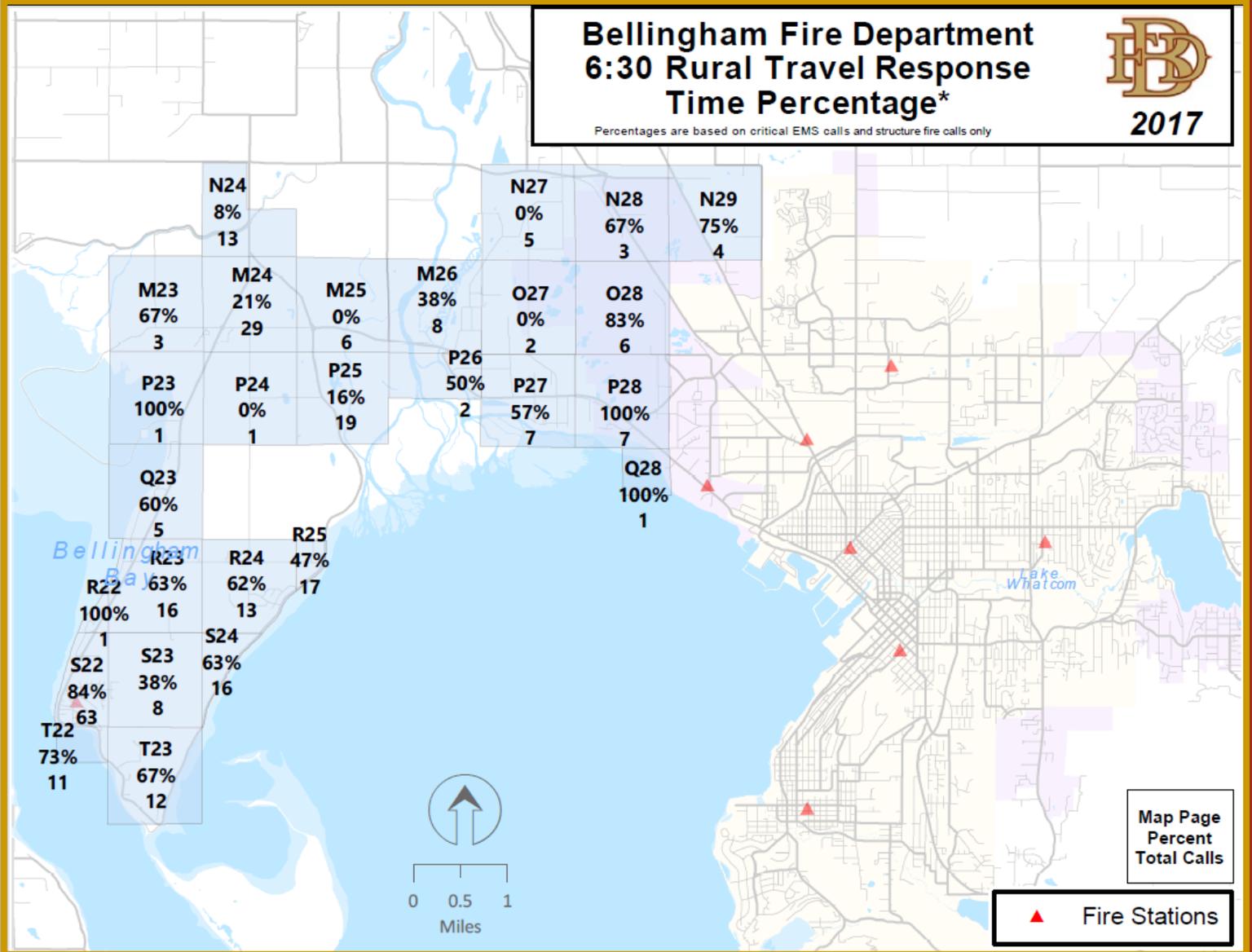


Bellingham Fire Department 4 Minute Travel Response Time Percentage



Whatcom Fire District 8

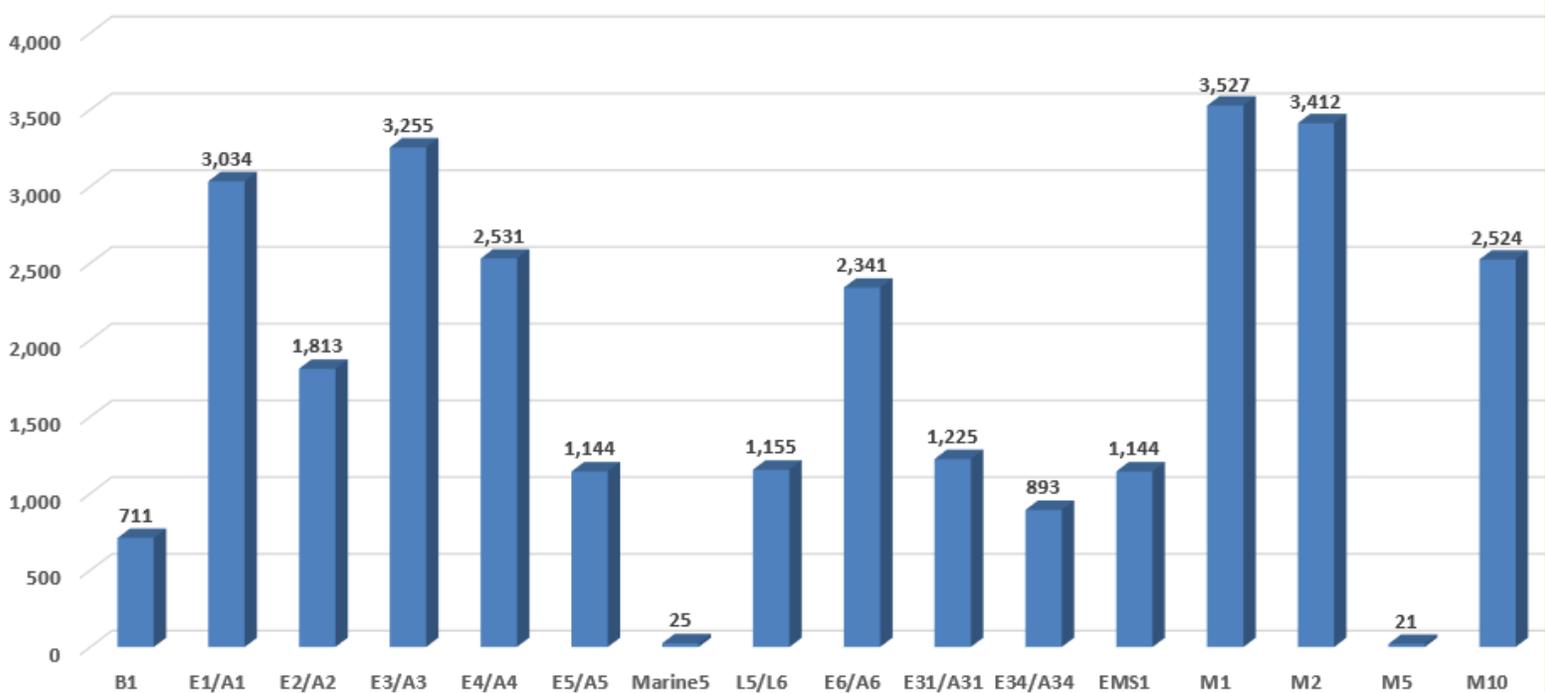
4 Minute Travel Response Time Percentage



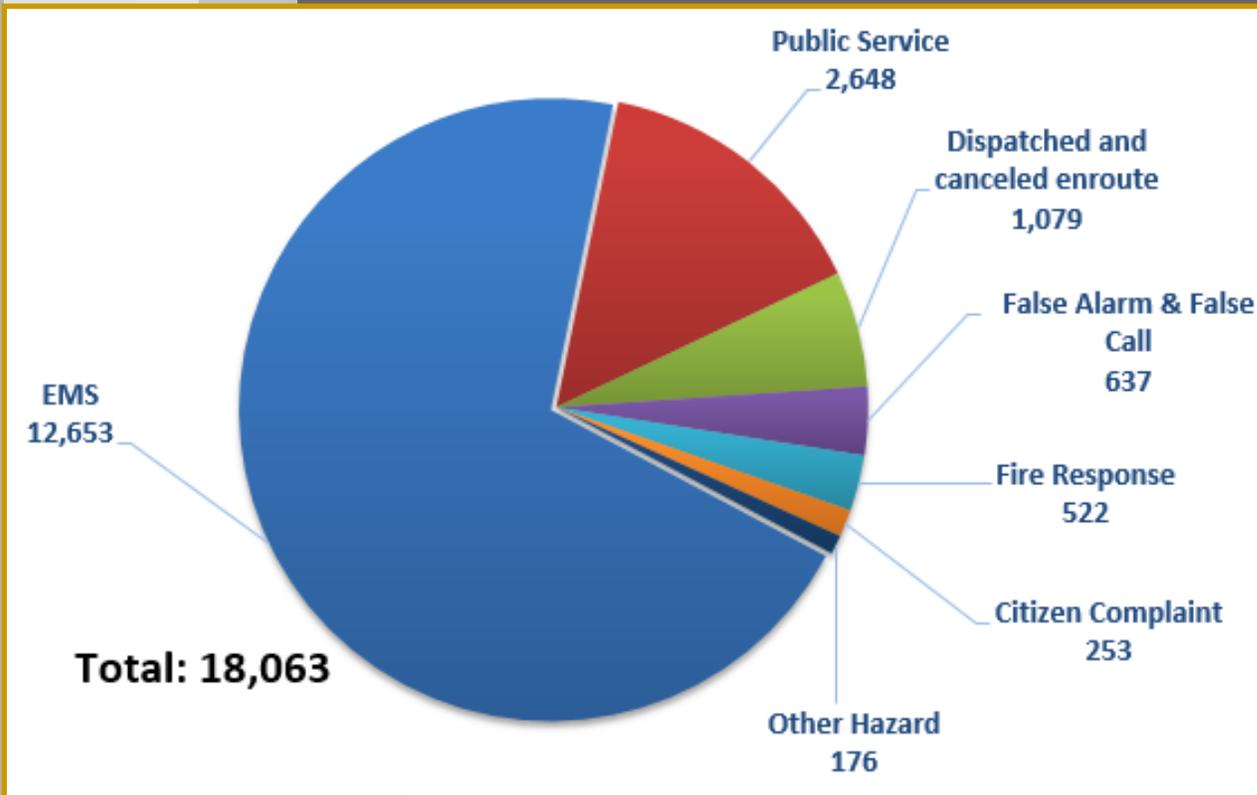
Responses Per Apparatus



Number of Responses Per Apparatus



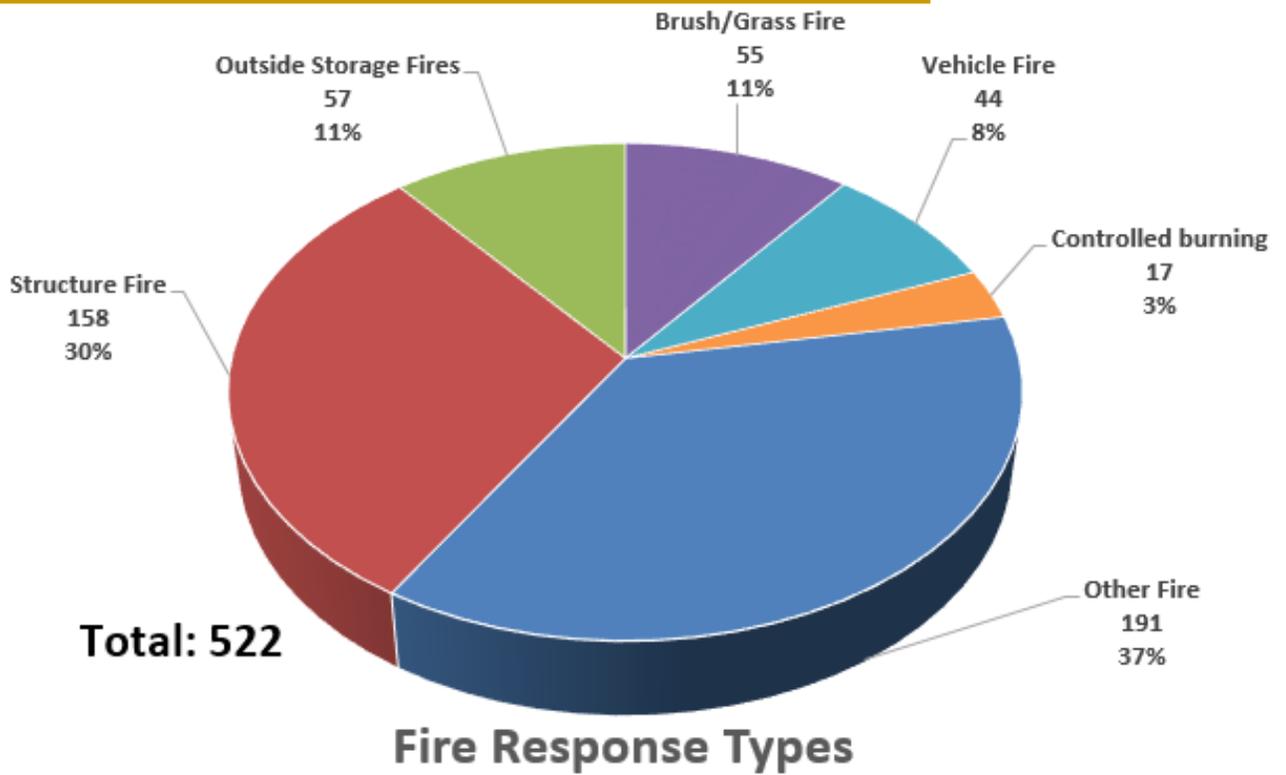
Incidents By Type



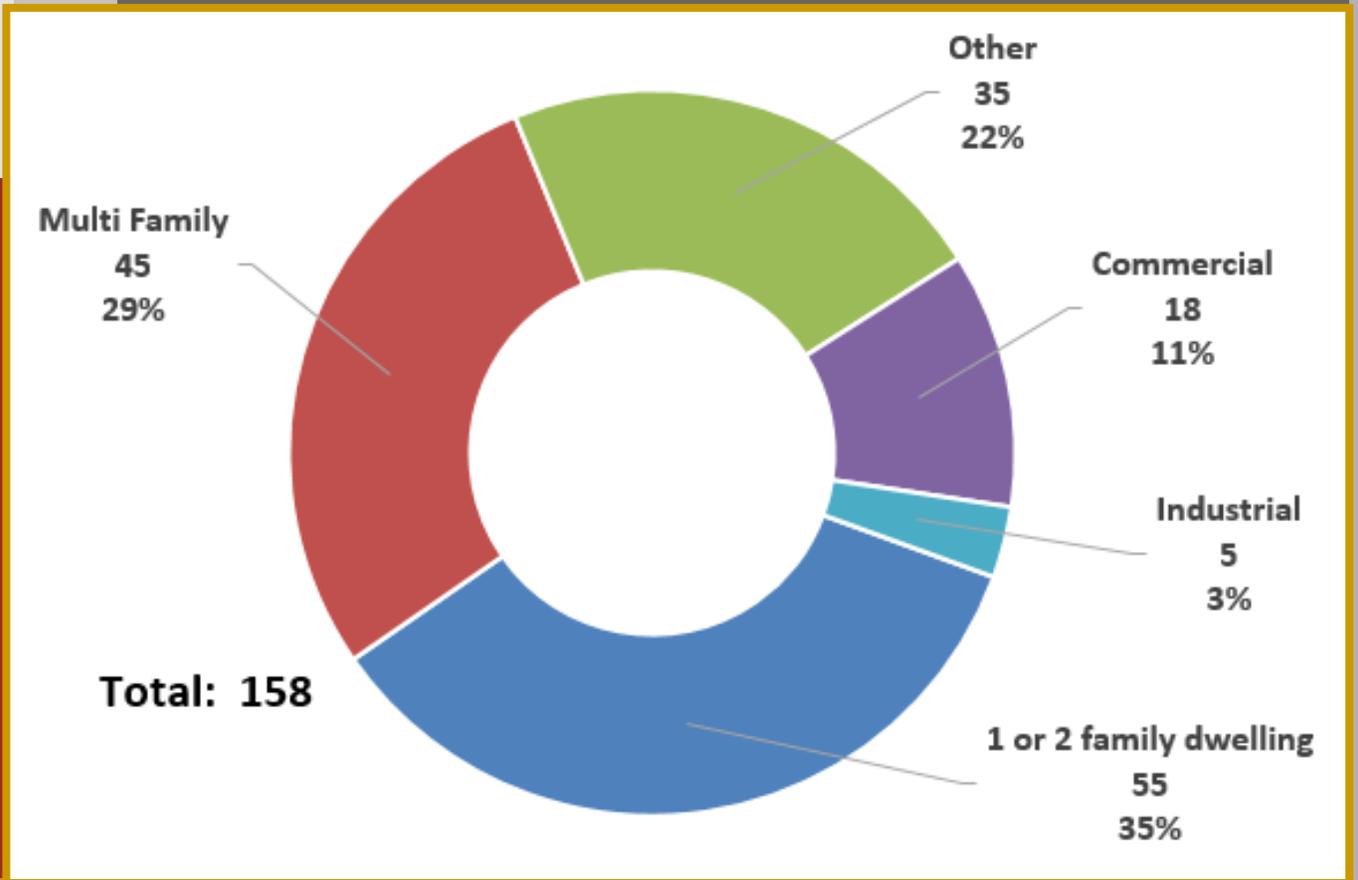
Emergency Response Statistics



Fire Response Types



Building Fires By Occupancy Type



Turnout Time By Unit

Time From Dispatch To Enroute

Turnout Time by Unit

| Apparatus | Median Times | 90% | Average |
|-----------|--------------|-------|---------|
| E1 | 01:00 | 03:00 | 01:31 |
| E2 | 01:00 | 02:15 | 01:28 |
| E3 | 01:00 | 02:00 | 01:21 |
| E4 | 01:00 | 02:06 | 01:25 |
| E5 | 01:00 | 02:01 | 01:27 |
| E6 | 01:43 | 03:00 | 01:38 |
| E31 | 02:00 | 03:00 | 01:57 |
| E34 | 02:00 | 03:01 | 02:00 |

Travel Time

| Apparatus | Median Time In Response Area | 90% In Response Area | Average in Response Area |
|-----------|------------------------------------|----------------------------|--------------------------------|
| E1 | 0:03:00 | 0:06:00 | 0:03:39 |
| E2 | 0:03:02 | 0:07:00 | 0:04:03 |
| E3 | 0:03:00 | 0:06:00 | 0:03:32 |
| E4 | 0:04:00 | 0:07:00 | 0:04:35 |
| E5 | 0:03:00 | 0:06:00 | 0:03:27 |
| E6 | 0:03:08 | 0:06:00 | 0:04:16 |
| E31 | 0:04:00 | 0:09:00 | 0:05:16 |
| E34 | 0:06:00 | 0:08:24 | 0:07:06 |

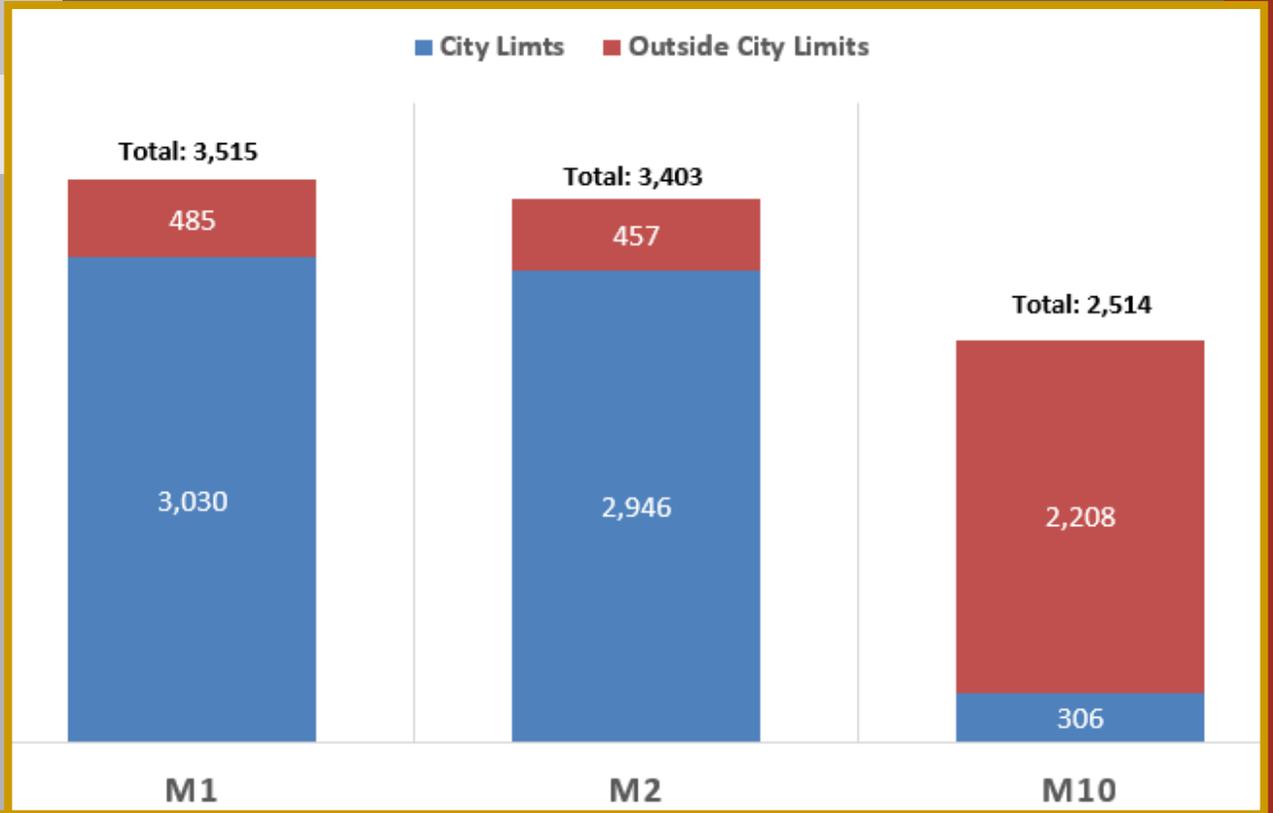
Time From Enroute To Scene

Emergency Response Statistics

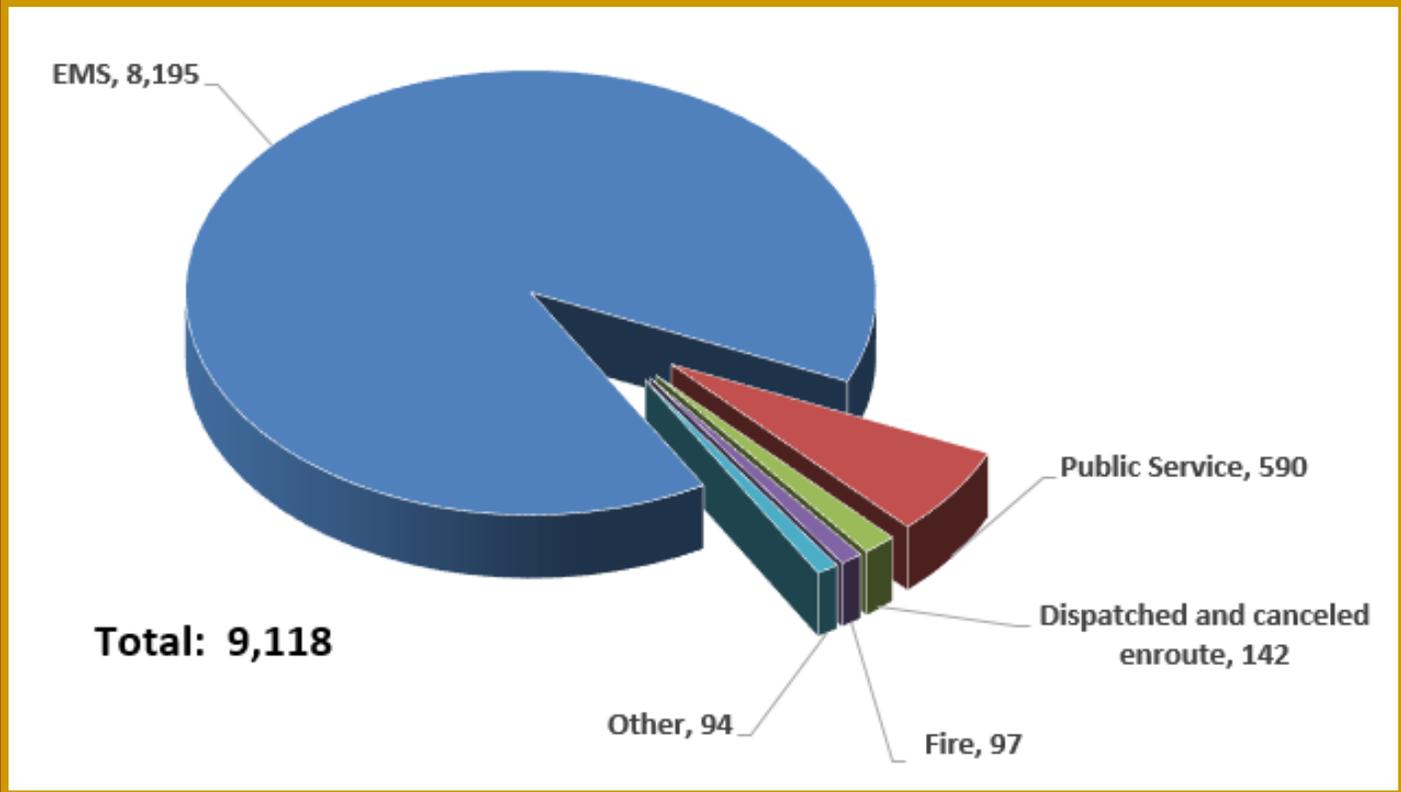
EMS



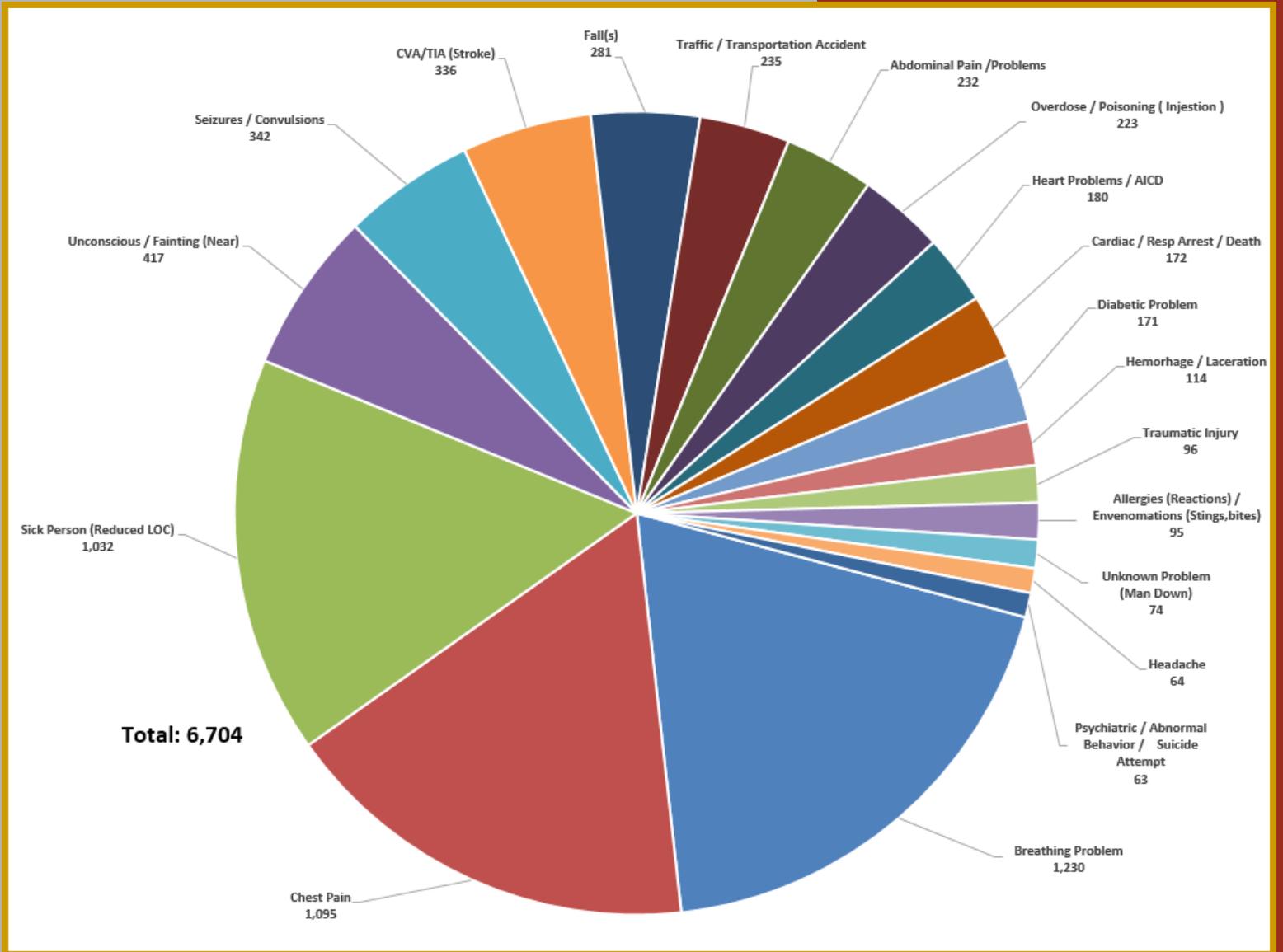
Paramedic Incidents



Paramedic Incidents by Type



Paramedic Patient Care Summary

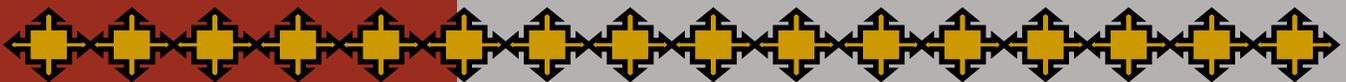


Medic Response Time Info

Time From Dispatch To Enroute

Turnout Time by Unit

| Apparatus | Median Times | 90% | Average |
|-----------|--------------|---------|---------|
| EMS1 | 0:01:00 | 0:03:00 | 0:01:25 |
| M1 | 0:01:00 | 0:03:00 | 0:01:18 |
| M2 | 0:01:00 | 0:02:23 | 0:01:12 |
| M10 | 0:01:00 | 0:02:00 | 0:01:05 |



Time From Enroute To Scene

Travel Time

| Apparatus | Median Time In Response Area | 90% In Response Area | Average in Response Area | Median Time Outside Response Area | 90% Outside Response Area | Average Outside Response Area |
|-----------|------------------------------------|----------------------------|--------------------------------|--|------------------------------------|--|
| EMS1 | 0:05:00 | 0:09:30 | 0:05:40 | 0:14:00 | 0:22:48 | 0:14:48 |
| M1 | 0:05:51 | 0:10:21 | 0:06:14 | 0:13:41 | 0:22:29 | 0:13:56 |
| M2 | 0:05:15 | 0:09:25 | 0:05:47 | 0:13:22 | 0:21:32 | 0:23:29 |
| M10 | 0:08:00 | 0:14:00 | 0:07:42 | 0:11:52 | 0:20:48 | 0:12:47 |

