Pasco Fire Department Performance Report 2017

Authors:

Troy A. Phillips, Sr. Management Analyst

David Hare, Deputy Chief Pasco Fire Department

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PURPOSE

The Firefighting industry is undergoing a significant overhaul. Certainly, the past 50 years have brought immense improvement with regard to innovation on the subjects of safety, process, and equipment – but how do we navigate the crossroads when effectiveness and efficiency of operational execution meet fiscal stewardship?

The recent history of fire service has led to the avocation of the "All Hazards" Fire Department. All Hazards departments provide initial action response to a variety of emergent events including: emergency medical services, technical rescue (high/low angle rope, trench and confined space, water, machinery, wilderness and urban search and rescue, hostile environment (active shooter), collapse), hazardous materials and hostile fire environments, including; wildland, urban-interface, vehicle, and structural. These specialty events often require additional costs for equipment and training, and ultimately increase personal and corporate liabilities to the authority having jurisdiction. Each agency must identify and address its own unique set of challenges, and adapt its resources to meet and fulfil the greatest needs of the community it serves.

How then do we identify acceptable levels of risk and empower our leadership to make the best decisions regarding policy and service?

More than ever, Fire Department Administration is as much about numbers, statistics and trends as it is personnel management and emergency services delivery. The future success or failure of a fire department will depend entirely on its ability to collect, monitor, and analyze relevant information in an accurate and meaningful manner.



STRATEGIC PLAN AND PRIORITIES

During the spring of 2017, the Pasco Fire Department contracted with Emergency Services Consulting International (ESCI) to facilitate and construct a three to five-year strategic plan. The planning process included comments and elements from three distinct internal and external constituent groups:

- Internal: Composed of 13 members of the Fire Department, these members represented a broad cross-section of the department and included membership from all ranks and service lengths.
- 2) Allied Agency: This group included 10 members from agencies in which the fire department works closely and included representatives from regional utility companies, Police and Sheriff's Department, Public Health, Emergency Management, and the Pasco School District.
- 3) Community: The third group, consisting of 14 members, represented various interest organizations from within the community including Homeowners Associations (HOA's), the Downtown Pasco Development Association, and interested independents representing a broad range of social and economic status.

Key elements of the strategic plan (Dimensions) were established as follows: Cost, Response Time, Training, Infrastructure and Equipment Reliability, Community Services. Dimension priorities were established through panel forced ranking, weighing each dimension against one another. Generally, citizen forum participants preferred a significant level of emergency response readiness (technical competence); reliable infrastructure (equipment and facilities); and improved response times. Dimensions of lesser importance were; cost containment and expansion of services. The bottom ranked dimensions may reflect a high degree of current satisfaction (cost of service) with regard to the types of services provided by the fire department.

The planning process was completed and a final draft of the plan was presented to the Pasco Fire Department in September of 2017. The plan is intended to be a living document, and as such continues to be reviewed and analyzed to ensure its validity. The figure on the following page represents the desires of our community partners. This document (2017 PFD Performance Report) and the metrics contained herein are the reaffirmation of our commitment to the achievement of excellence as defined by the community we serve.





2016-2017 CITY OF PASCO COUNCIL GOALS

Bi-annually, the Pasco City Council establishes specific goals designed to guide the work of the City. Following three community forums, community surveys, and ongoing formal and informal input from public and governmental partners, the Council held a goal-setting retreat in March of 2016. The goals established during the retreat were adopted by the Council on May 2, 2016. In the area of Community Safety, the following fire department-specific goals were developed.

Preserve past improvements and promote future gains by:

- Working to maintain/achieve target response times (as defined by Council Resolution #2938)
- Focus on a long-term goal of improving the Washington State Ratings Bureau community rating to Class 4
- Efforts to realize full implementation of a consolidated PSAP/Dispatch Center



BACKGROUND

Page 8	ORGANIZATIONAL OVERVIEW
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Organizational Overview

The Pasco Fire Department (PFD) was established by Council action on July 16, 1908 after a series of fires destroyed portions of the town. The current service area incorporates approximately 37 square miles. The department is led by the Fire Chief, serving in an at will capacity appointed through a competitive process by the City Manager.

The Pasco Fire Department is an all-hazards career response force that provides Fire suppression (urban structural, wildland and vehicle), Advanced Life Support Emergency Medical Services (EMS), Hazardous Materials Response, Technical Rescue (high and low angle rope, confined space, trench, swift-water, structural collapse and vehicle/machinery), and Aircraft Rescue and Fire Fighting services. The department responds to an average of 5300 calls for service, per year (2015-2017).

Most uniformed members of the department are cross qualified in other disciplines such as; incident command, technical rescue, aircraft rescue and firefighting, hazardous materials, public education, fire investigation and hostile incident response.

The City of Pasco earned a Public Protection Class - 5 rating from the Washington Surveying & Rating Bureau (WSRB) in 2016. The rating serves as a benchmark for many insurance companies in determining insurance premiums for privately insured properties. WSRB class ratings are comprised of four major categories: Fire Department (40% of total score), Water Supply (35% of total score), Fire Safety Control (16% of total score) and Emergency Communications (9% of total score). Each major category contains several subcategories. The total points issued in these areas are combined to provide a rating on a scale of 1 to 10, 10 representing minimal fire protection and 1 representing the best fire protection available.

The fire department staffs four fire stations (since Nov. 2017) on a 24 hr./7 day per week basis. The city is divided into four primary station response areas. Each response area is further sub-divided into fire management zones.

Personnel Overview

The Pasco Fire Department is staffed with 75 qualified all-hazards line personnel, 6 of which are funded by the Port of Pasco specifically for the provision of Aircraft Rescue Fire Fighting service, at the Tri-Cities regional airport. The department is structured in two distinct divisions; Administrative and Operations. The operations division is subdivided into three equally staffed shifts, each working a 48 hour on-duty, 96 hour off-duty rotation (48/96). The members are provided 13 (1 per pay cycle) annual Kelly Days in order to average a 50 hour work week and comply with the FLSA 7K standard. The shifts are managed by an on-duty Battalion Chief who is supported by the administrative staff. All operational employees are covered in a collective bargaining agreement. The Administrative staff typically work a Monday through Friday schedule from 0800-1700.

The Fire Chief (Chief) is accountable to the City Manager for the overall operations of the Fire Department and implementation of policy. As the department director, the Chief serves and maintains working relationships with other City departments. The Chief is responsible for the development and support of collaborative relationships with other fire and emergency services agencies, and the public.

The Deputy Chief is responsible for day to day program management within the fire department. This position may be delegated the authority and responsibilities of the Fire Chief in the event of the Chief's absence.

The Training Officer (Captain) is responsible for the scope, schedule, and budget of the department's training program.

The Emergency Medical Services (EMS) Officer (Captain) is responsible for the management, inventory, record-keeping and HIPPA compliance of the EMS program.

The Community Risk Reduction Officer (CRR) (Captain) is responsible for the management and development of overall community risk assessment, risk mitigation programs, and public information efforts.

The Battalion Chief (1 per shift, 3 total) is accountable to the Deputy Chief. This position provides the management and supervision of day-to-day and combat operations of the shift. The Battalion Chief serves as the initial action incident commander for all-hazards incidents within the City. Each Battalion Chief has direct program management responsibilities for one of the following department programs; Apparatus Maintenance, Facilities Maintenance, or Equipment Maintenance. Battalion Chiefs may also manage programs such as fire investigation, technical rescue, PPE procurement and maintenance.

Station Officers (4 per shift) are ranked as Captains within the organization. The station officer may be delegated the responsibilities of the Battalion Chief in their absence dependent upon qualifications. The station officer is responsible for the day-to-day operations of a station crew. The station officer may have program responsibilities and/or project responsibilities.

Company Officers (2 per shift) are ranked as Lieutenant within the organization. The Company Officer may be delegated the responsibilities of the Captain in their absence dependent upon qualifications. The company officer is responsible for project management, including scope, schedule and budget. NOTE: 1 company officer per shift is usually assigned as the ARFF LT.

Firefighter/Paramedics are responsible for the delivery of advanced life support pre-hospital emergent care, fire suppression and routine maintenance of the facilities, apparatus and equipment to which they are assigned.

Firefighters are responsible for the delivery of basic life support EMS, fire suppression activities and routine maintenance of the facilities, apparatus, and equipment to which they are assigned.

The fire department functions strictly in the scalar command structure for emergency operations while leveraging a dynamic approach to ongoing routine program and project administration. Programs are defined within the organization as integral components of service delivery, typically championed by Battalion Chiefs under the direction of the Deputy Chief. Projects are considered a subset of programs, managed by Captains, Lieutenants, or Fire Fighters. This approach promotes an empowered and engaged workforce.

Organization Chart



Apparatus

The PFD operates two NFPA 1001 Type 1 engines, 1 Type 1 Ladder Truck, 2 Type 6 engines, 3 Type 2 advanced life support ambulances, 1 Type 2 water tender, 1 Type 4 light rescue vehicle, and 1 Type 4 rescue boat out of four fire stations.

The fire department also operates 2 Type 1 aircraft rescue and firefighting vehicles under contract with the Port of Pasco at the Tri-Cities airport. Equipment and staffing distribution is outlined below:

Station 81 310 N. Oregon Ave.	1 Command vehicle BC281 1 Type 1 Engine E2811 1 Type 2 ALS Ambulance M2821 1 Type 6 Engine E2861 1 Type 4 Rescue Boat B2841	1 Battalion Chief 1 Captain 1 Firefighter 1 EMT 1 Paramedic Unstaffed Unstaffed	Minimum Staffing 5 Maximum Staffing 7
Station 82 3502 Varney Ln.	1 Type 1 Ladder L2811 1 Type 2 ALS Ambulance M2822 2 Type 1 ARFF ARFF281 & 282 1 Type 2 Tender W2822 1 Type 4 Light Rescue R2841	1 Captain 1 EMT 1 Paramedic 1 Lieutenant 2 Firefighter Unstaffed Unstaffed	Minimum Staffing 6 Maximum Staffing 7
Station 83 3203 Rd. 68	1 Type 1 Engine E2813 1 Type 2 ALS Ambulance M2823 1 Type 6 Engine E2863	1 Captain 1 Firefighter 1 EMT 1 Paramedic Unstaffed	Minimum Staffing 4 Maximum Staffing 5
Station 84 1208 Rd. 48	1 Type 2 ALS Ambulance M2824	1 EMT 1 Paramedic	Minimum Staffing 2 Maximum Staffing 3

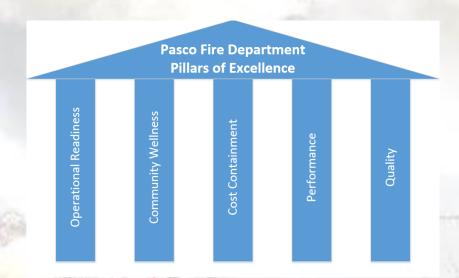
The fire department also maintains a type 1 engine and type 2 ALS ambulances in reserve at Station 83. The administrative staff, which includes the Chief, Assistant Chief, and Training Officer, EMS Officer, Community Risk Reduction Specialist and secretarial staff are located at 1011 E. Ainsworth at the fire department headquarters.

Pillars of Excellence

The department utilizes a framework referred to as "Pillars of Excellence", for the creation and monitoring of Key Performance Indicators (KPI's), that when combined, the Pillars provide a holistic and multi-dimensional overview of the health, performance, and effectiveness of the organization.

In short, the Pillars are the key subject areas as defined by the strategic plan and Council goals. For example, this might include; cost containment, operational readiness, and customer satisfaction or quality. By identifying and establishing these pillars, and acknowledging their interrelationships and dependencies amongst one another, we are able to compile a meaningful list of metrics associated with each pillar that gauge not only the quantity of work performed in a given category, but also the overall value and quality of that work to the organization and community. These metrics and pillars, when combined, present opportunities for the organization to examine its direction and momentum; they enable decisions and policies to be exercised with confidence, with the sole goal of consistently working toward organizational excellence.

The Pasco Fire Department has identified the following Pillars of Excellence:



The Pasco Fire Department has worked diligently to establish and monitor metrics proven to directly impact the service level and value provided by each respective pillar. This process is viewed as an ever evolving and adapting, dynamic effort; by no means are the current metrics deemed as comprehensive or representative of department service, health, or value in totality.

The following chapters of this report review in detail the current approach to metric collection, inclusive of the respective results and analysis for the 2017 year, set forth by the five primary pillars of excellence as identified specific to the City of Pasco. In many cases, the charts and statistics of this report affirm anecdotal assumptions, while other cases lead to more questions than answers. Perhaps the most important outcome of this study is a healthy recognition of information and data collection inadequacies, which will ultimately fuel the formation of process and reporting design to develop lasting and meaningful metrics

OPERATIONAL READINESS

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TECHNICAL COMPETENCE

Core Purpose:

Ensure staff is properly trained, healthy, and capable of peak performance at all times (Strategic Plan Priority). Measure and monitor personnel qualifications to Washington State Rating Bureau (WSRB) standards for the achievement of 2016-2017 Council Goals.

Metrics Measured:

International Fire Services Accreditation Committee (IFSAC) Qualifications, Training hours, Length of Employment, Retirement Eligibility

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APPARATUS RELIABILITY

Core Purpose:

Ensure fleet and equipment is capable of meeting performance demand. Monitor the availability and condition of assets, anticipate and plan for future needs (Strategic Plan Priority).

Metrics Measured:

Fleet Age, Maintenance Costs, Out of Service Time, Unit Utilization Costs

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CALL VOLUME/TEMPORAL TRENDING

Core Purpose: Monitor event type trends, recurrence, and location, to improve resource allocation and training needs.

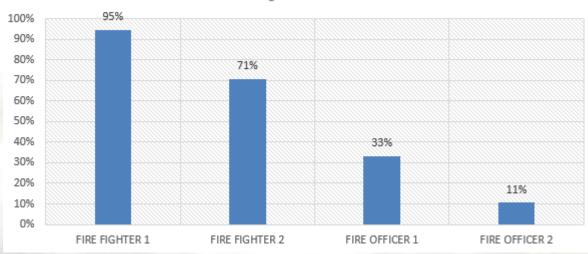
Metrics Measured:

Call Types, Geo-Spatial Concentrations, Temporal Statistics

TECHNICAL COMPETENCE

Member Qualifications

IFSAC Qualifications



The Pasco Fire Department utilizes standards set forth by the International Fire Services Accreditation Committee (IFSAC), recognized by the Washington State Rating Bureau and the Washington State Fire Marshall's Office, as a benchmark for measuring individual professional qualifications. The completion of the IFSAC process, from basic firefighter through fire officer 2, represents over 700 hours of instructed training.

Annual Training Hours Completed by Shift

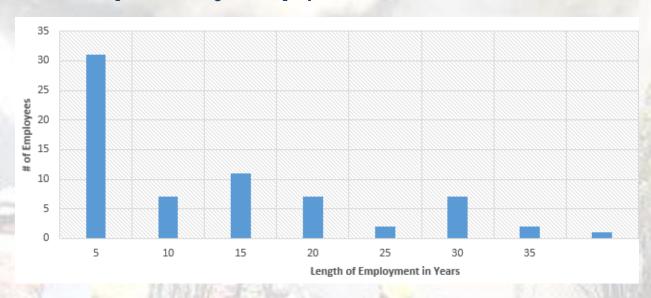


Average Training Hours Per Staff Member



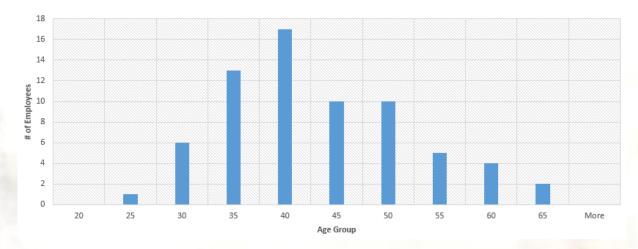
2017 was the first-year of monitoring training hours as a performance metric. Accordingly, the department will monitor 2018 performance against both 2017 figures and a tentative baseline target of 200 hours per employee.

Pasco Fire Department Length of Employment



Department length of service emphasized at <5 yr. mark. Contributing factors include new-hire staff increases associated with the opening and staffing of Station 84.

Department Age by 5 Year Group



The above graph represents a healthy normal curve, indicating a good blend of staffing with regard to age and experience, department wide.

Eligibility for 2018 Retirement

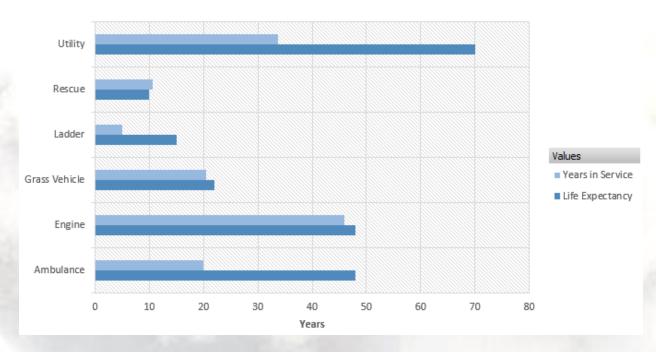


Replacement timeline for the backfilling of retirees is a leading cause of rising overtime rates. Review of potential for pre-retirement hiring/training to minimize transition strain recommended. Further analysis highlights the level of leadership and staff eligible for retirement; 1 Fire Chief, 1 Deputy Chief, 2 Battalion Chiefs, 3 Captains, and 1 Lieutenant (Statistically stated, 100% of the Uniformed Administrative Chiefs, 66% of the Operational Chiefs, 25% of the Station Commanders, and 17% of the Company Officers are currently eligible for retirement).

Consideration of the establishment and maintenance of promotional lists recommended.

APPARATUS RELIABILITY

Cumulative Fleet Age versus Total Fleet Life Expectancy



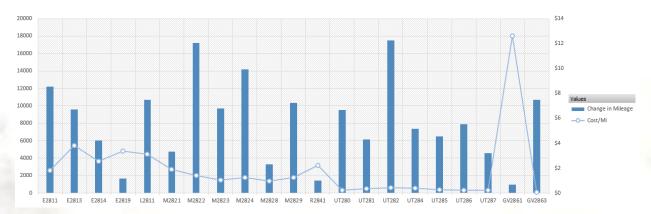
As anticipated, fire engine lifecycle is reaching maximum expectancy. Two replacement engines have been ordered. A closer review of rescue and grass vehicle truck replacement by both fire and fleet maintenance is recommended for 2019-2020 budget cycle.

Maintenance and Fuel Cost by Vehicle Category and Type



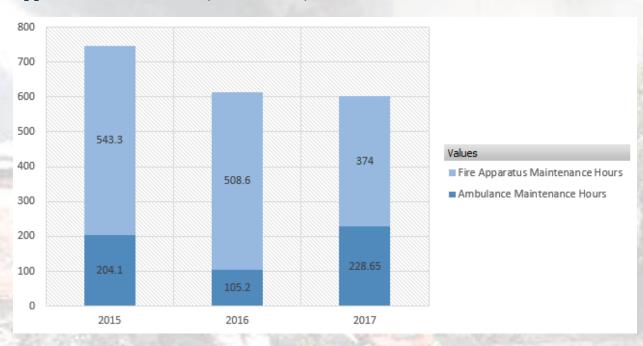
A review of internal shop maintenance rates for ambulance and fire engines as compared to 3rd party service for 2019-2020 budget cycle is recommended. Grass vehicle maintenance costs indicate replacement; however, most maintenance costs within this category are due to the refurbishment of a tank and pump. It is expected this completed replacement will extend the life expectancy of the particular unit by approximately 5 years.

Vehicle Utilization in Miles versus Cost per Mile



Change in mileage represents effective use of apparatus. The graph's secondary axis – cost per mile – is calculated by material, labor, and fuel costs for a given year, per vehicle. A greater cost per mile and lesser change in mileage represents either inadequate use or a deteriorating effectiveness of a given apparatus. The costs projected on this cost/usage ratio indicate and recommend vehicle replacement consideration be given to fire engine 2819, and rescue vehicle 2841. (See chart on pg. 11 for vehicle identification)

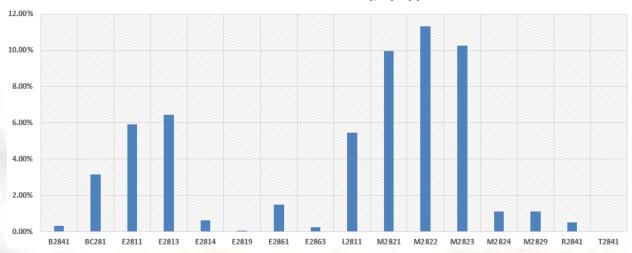
Apparatus Out-of-Service (Maintenance) Time



New tires and brakes were installed on a majority of ambulances in 2017. Radiator replacement, new vehicle setup (x2), and step assembly were additional labor and expense drivers for ambulance apparatus. Fire apparatus maintenance costs are anticipated to rise in 2018 for set up and delivery of new apparatus (x2). *Note this figure does not include 3rd party service hours. The department is investigating a system to more accurately collect meaningful third party billing statistics.

Unit Hour Utilization



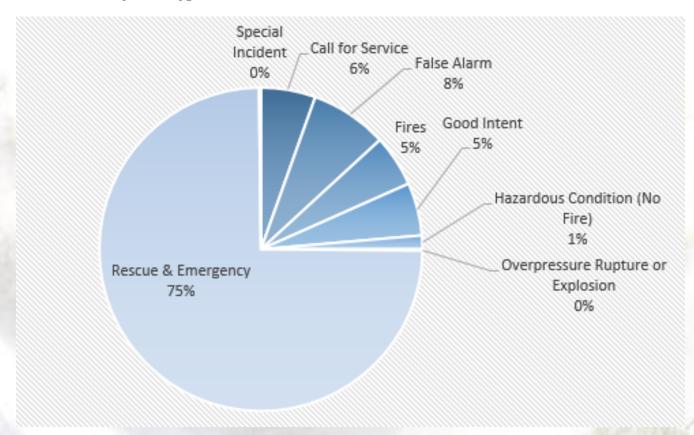


Unit hour utilization measures the amount of time (by percentage of the day) of which a particular unit is committed to an emergent event. Historically, a Unit Hour Utilization (UHU) greater than 25% indicates a potential for employee exhaustion issues and negatively affects station and unit reliability. The Center for Public Safety Excellence/Commission on Fire Accreditation and the Pasco Fire Department Master Plan suggests a need for additional equipment and staffing support as UHU rates reach 25 percent. Monitoring this metric in combination with overall response times will lead to a refinement in the target replacement percentile range.



CALL VOLUME/TEMPORAL TRENDING

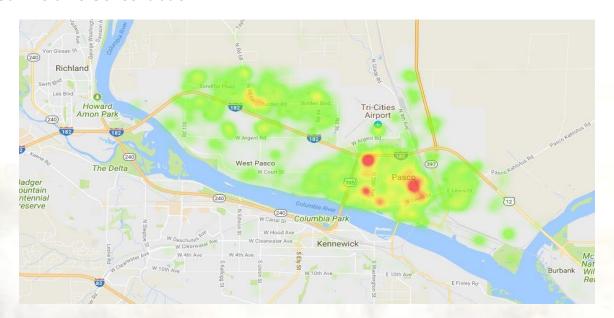
Call Volume by Call Type



The Pasco Fire Department statistically aligns with national and regional ratios for departments that operate an Emergency Medical Service (EMS). Historically, responses to EMS calls (NFIRS {National Fire Incident Reports System} Codes 321 and 322) comprise 75-80% of Pasco's total emergent call volume (an in-depth study of these event types is discussed later in this report). Fires and other emergencies represent between 20-25% of total call volume.

EMS and Fire calls represent the highest cost risk of emergency service provisions within the City of Pasco. EMS drives cost by volume, while Fire by resource demand. Primary 2017 EMS cost centers by type are; trauma, cardiac event, and overdose. 2017 Fire response cost drivers are primarily singular structure fires. The fire department is monitoring these specific event types (and others) in an effort to identify trends, costs, and alternative strategies.

Call Volume Concentration



The 2017 Call Volume Concentration heat map above identifies call locations for all emergent event types. Utilization of this data allows the department to consistently monitor and plan for future expansion based upon calls for service. The map identifies call volume concentrations by three colors; red represents a high concentration call area, yellow represents medium concentration, and green represents low concentration.

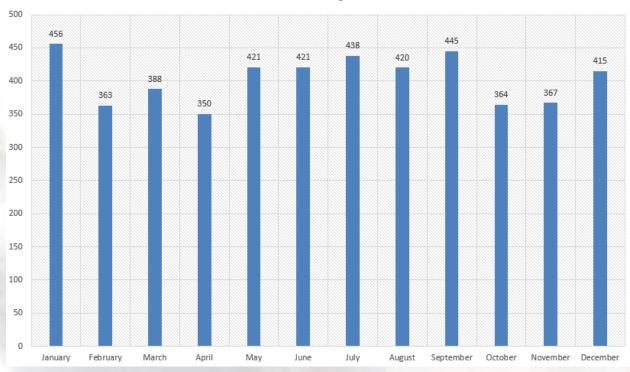
Population Density

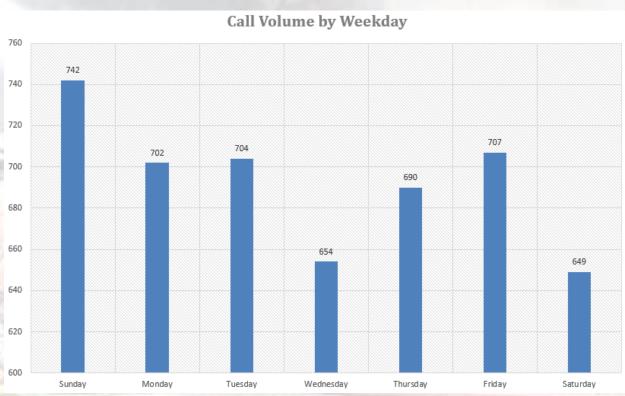


Population densities, as referenced in the visual map above, are represented by darker shading; the darker the shading, the higher the density. Geospatial analysis of both data sets indicate higher call volume occurring in areas experiencing increased population movement, and secondarily, areas of greater static population density. For future planning purposes, it is recommended consideration be given to resource positioning commensurate with population densities and movement. 2016 Census data reflects a City population of 70,560 with a density of 2075 people per square mile.

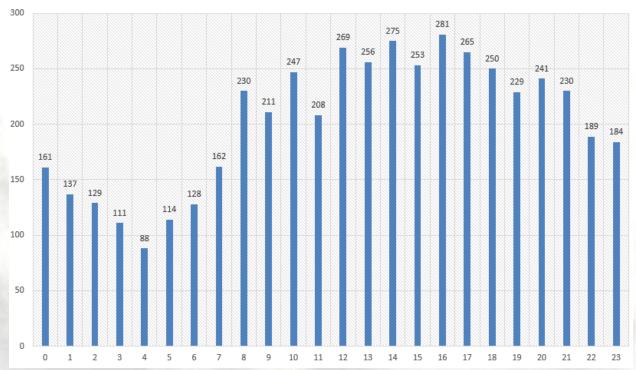
Call Volume Temporal Trending

Call Volume by Month





Call Volume by Hour

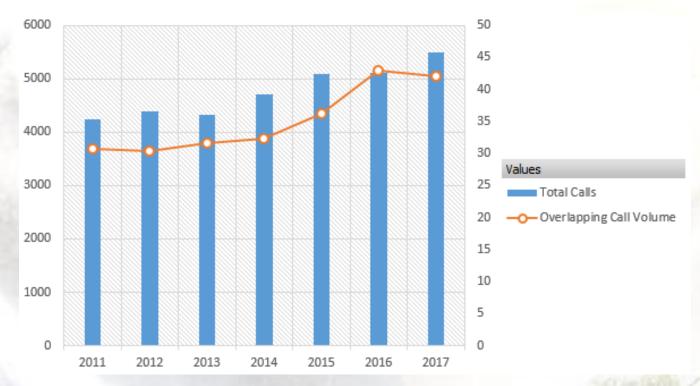


Call volume is concentrated during times of significant population activity and movement, typically during daylight and evening hours and warmer months. The call volume chart above uses the military time stamp (0 equals midnight, 1 equals 1:00 am, etc.). The anomaly noted in January (pg. 22 "Call Volume by Month") can be attributed to an unusually high snowfall accumulation during the winter of 2016-2017.



Overlapping Call Volume V. Total Call Volume

An overlapping call is defined as a call which occurs while primary response units (the units that are normally assigned) are engaged on a prior emergency. This metric includes simultaneous calls for different addresses. Overlapping call volume is displayed on the graph's secondary axis, in combination with total calls represented on the primary axis.



Call volume continues trending upward year over year. 2017 experienced a minor reduction in overlapping call volume, attributable to the introduction of Station 84 in the third quarter of the year. The addition of St84 allowed primary response units to maintain availability within their initial response areas. It is anticipated overlapping call volume will decline further throughout 2018.

2016 Response Time by Fire Management Zone



2017 Response Time by Fire Management Zone (Nov. & Dec. Only)



The map above depicts the response time results with the addition of St84. The limited data set (November and December of 2017) clearly indicates a positive result in overall times, particularly in the Riverview Area. Gray FMZ's indicate that there were no emergent calls during the data sampling.

2017 Response Time by Fire Management Zone



Response times in Central Pasco have been reduced with the opening of Station 84. It is expected that response times will continue to decline in remaining yellow zones (Central Pasco) as St 84 becomes fully staffed. Fire Management Zones with heavy call volume also saw a reduction in response times City-wide, however, West/Northwest Pasco continues to experience delayed response attributable to longer travel distances from existing stations. As expected, outer-perimeter zones continue to experience longer response times, with specific concentration in industrial areas.



COMMUNITY WELLNESS

Page 28

PATIENT DEMOGRAPHY (LIMITED)

Core Purpose:

Understand community demographics and inherent target risks to better plan and prepare effective prevention programs and emergency responses.

Metrics Measured: Resident Age, Average Patient Age, Average Patient Gender and Age

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MEDICAL EMERGENCY

Core Purpose:

Measure, analyze, and adapt operational processes to achieve and maintain optimal outcomes. The Healthcare Information Patient Privacy Act (HIPPA) has limited the availability of meaningful statistics. The Pasco Fire Department, in cooperation with the WaCARES program, report and annually develop survival statistics for Cardiac Events. Portions of the metrics shown in this section are excerpts from the 2017 WaCARES program.

Metrics Measured:

Cardiac Events and Outcomes, Opioid Overdose Costs, Primary Provider Impression, Mortality

Page 36

FIRE EMERGENCY

Core Purpose:

Measure, analyze, and adapt operational processes to achieve and maintain optimal performance. The Pasco Fire Department reports all fire activities to the Washington State Fire Marshall's Office using the National Fire Incident Reporting System (NFIRS).

Metrics Measured:

Structural Fire Occurrences, Structural Fire Cause, Natural Cover Fires, Vehicle Fires

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COMMUNITY RISK REDUCTION

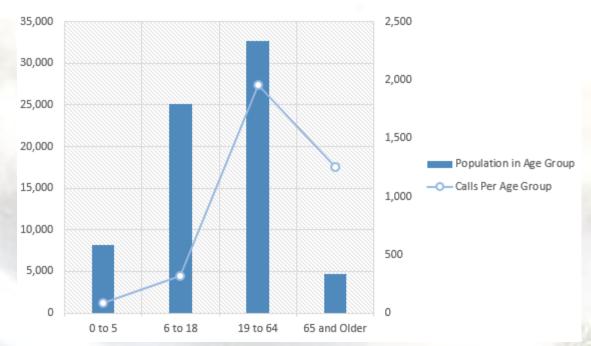
Core Purpose:

Promote Community wellness, safety education, and transparency between Citizens and Department.

Metrics Measured: Community Outreach Activities, Building Safety Inspections, and Code Enforcement Activities

PATIENT DEMOGRAPHY

The City of Pasco is home to approximately 70,579 residents, per 2016 Census data. Broken out by age group, we find Pasco is comprised of a significant youth population, but a relatively small retirement and older population. As suspected, call volume is directly correlated to patient age. As patient age increases, the calls per resident within the given age bin also increase. In other words, less than 2% of Pasco residents under the age of 18 will require emergency medical services per year; 7% of residents under the age of 64; however, over 26% of the population over the age of 65 will require EMS in a given year, on average.

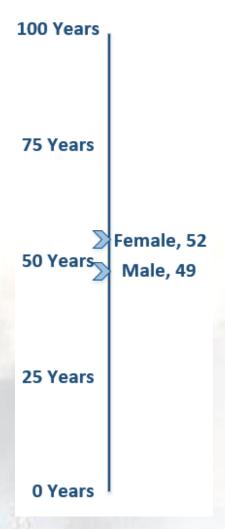


The fire department has reported a dependency of the 65+ population on 911 services for low risk incidents, often considered routine care. High cost of service to such a small demographic segment generally requiring non-emergent care indicates a significant opportunity for proactive community paramedicine programs. By conducting routine visits to high risk citizens (Target top 25% of 65+ population; estimated 1250 residents), the department stands to reduce EMS service costs and resource strain.

Additionally, it is noted that 36% of the population is positioned in the easiest-to-reach demographic; school age youth. Accordingly, it is recommended that the community risk reduction program increase its outreach efforts to this readily available audience for the improvement of community wide emergency service knowledge and application. An informed and capable middle and high school-aged demographic serves to support the interest and efficacy of Pasco's community safety efforts.

Further, the most significant group requiring emergency medical services as a whole is the working age population. Efforts to partner with large employers within the City in safety, first aid and CPR training for their respective staff are recommended.

Average Patient Age by Gender



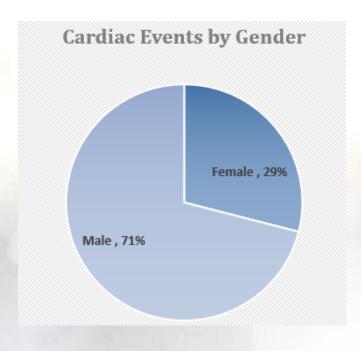
Females represent 48% of Pasco population, yet attribute to 52% of total EMS responses. The average age by gender for EMS patients is indicated in the chart above.

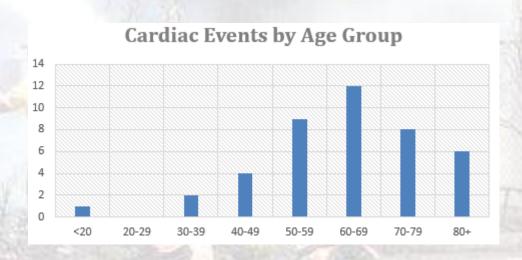
The median age in the City of Pasco is 28.6 years, and the average age of patients served by the Pasco Fire Department is 50.75 years.

MEDICAL EMERGENCY

Cardiac Etiology

Cardiac emergencies are on average the costliest emergency medical service provided in Pasco, with an average full-cardiac arrest scenario totaling over \$1,943 (transport fees not included). The Pasco Fire Department continues to monitor the frequency, cost basis, and demographics of cardiac events.



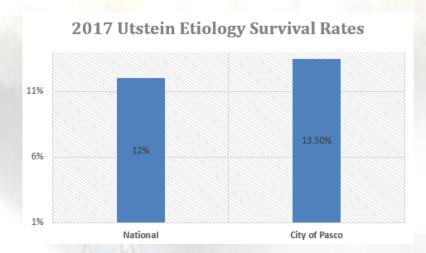


The Pasco Fire Department utilizes the Utstein Survival matrix to measure the success of medical interventions for cardiac events.

The Utstein matrix uses the following criteria to measure cardiac outcomes:

- Witnessed by bystander and found in a shockable rhythm (ventricular fibrillation or ventricular tachycardia)
- Received some bystander intervention (CPR and/or AED application)

Non-Traumatic Etiology Survival Rates (City of Pasco)			
Overall	13.5%		
Bystander Witnessed	35%		
Unwitnessed	0%		
Utstein	60%		
Utstein Bystander	33.3%		



The citizens of Pasco benefit from a fairly high survival rate for cardiac events, as compared to national average (reported by the American Heart Association). Consideration of a "Hands Only" CPR program for all City of Pasco Employees and general public is recommended in order to increase the likelihood of cardiac event diagnosis and survival.

Opioid Overdose

The national opioid epidemic is being carefully monitored by the Pasco Fire Department. Narcan (Naloxone) is the medication of choice for therapeutic intervention of opioid overdoses. The chart below shows significant trend in the use of Narcan (+306%) over the last seven years. Additionally, Narcan dosage costs have risen by 322% (\$9 – \$29.80 per dose) over the same time period.



The significant increase of Narcan administration from 2012 through 2014 is indicative of the opioid epidemic. The cause(s) of slight downturn between 2014 and 2016 has not been determined; however, the recent substantial spike between 2016-2017 is cause for concern. Early assumptions of this cause point to an increase in the illegal distribution of opioids. In order to mitigate the opioid related overdose deaths, the Pasco Fire Department, in collaboration with the Pasco Police Department and in compliance with RCW 69.50.315 and RCW 18.130.345, have provided and trained Police Officers to administer Narcan. To date, the Pasco Police Department has administered doses of Narcan to five patients, prior to the arrival of EMS personnel.

If the recent surge in Opioid overdose continues through 2018 and onward, the department will likely face increased costs resultant of supply consumption, increased unit utilization, and increased out of service times for ambulance units.

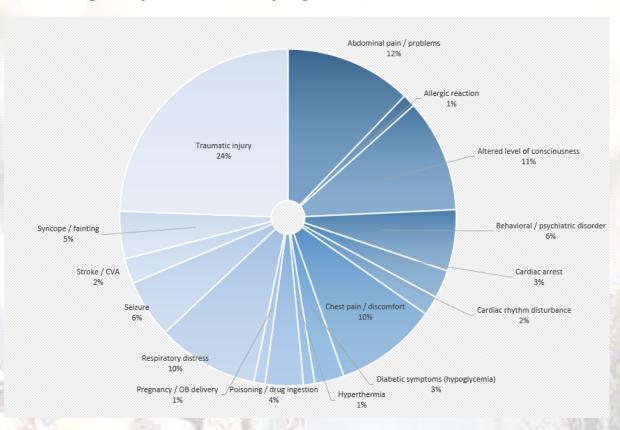
Medication by Cost/Dose (Top 5)

Protocol	Medication	Cost/Dose	# Doses FY2017	\$ FY2017
Diabetic	Glucogen	\$326.88	3	\$980.64
Overdose	Narcan	\$29.27	202	\$5912.54
Cardiac	Levophed	\$19.03	13	\$247.39
Intubation	Succinylcholine	\$18.40	75	\$1380.00
Overdose	Thiamine	\$11.93	18	\$214.74

Cost of Medication by Dosage Administered (Top 5)

Protocol	Medication	Cost/Dose	# Doses FY2017	\$ FY2017
Cardiac	Sodium Chloride	\$5.00	504	\$2520.00
Diabetic	Fentanyl	\$1.20	437	\$524.40
Nausea	Zofran	\$.18	389	\$70.02
Cardiac	Epi 1:10,1000	\$5.61	205	\$1150.05
Overdose	Narcan	\$29.27	202	\$5912.54

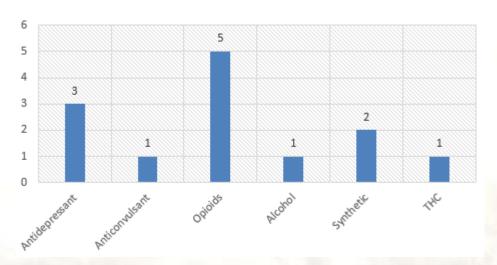
EMS Call Purpose by Provider Primary Impression



67% of total calls are attributed to 5 primary impressions: Trauma, Altered Consciousness, Abdominal Pain, Chest Pain, and Respiratory Distress. Analysis leads to the recommendation of cross referencing these impressions with average cost, by type, to highlight cost drivers and the potential for refinement of inventory control, financial recovery and reduction of emergent calls.

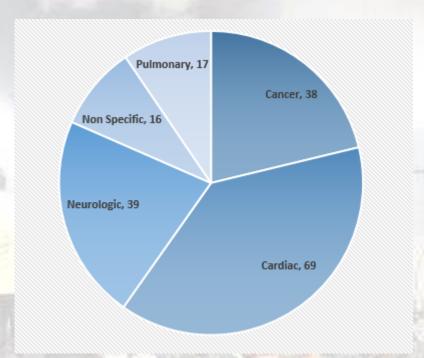
Mortality:

Death Due to Drug Overdose:



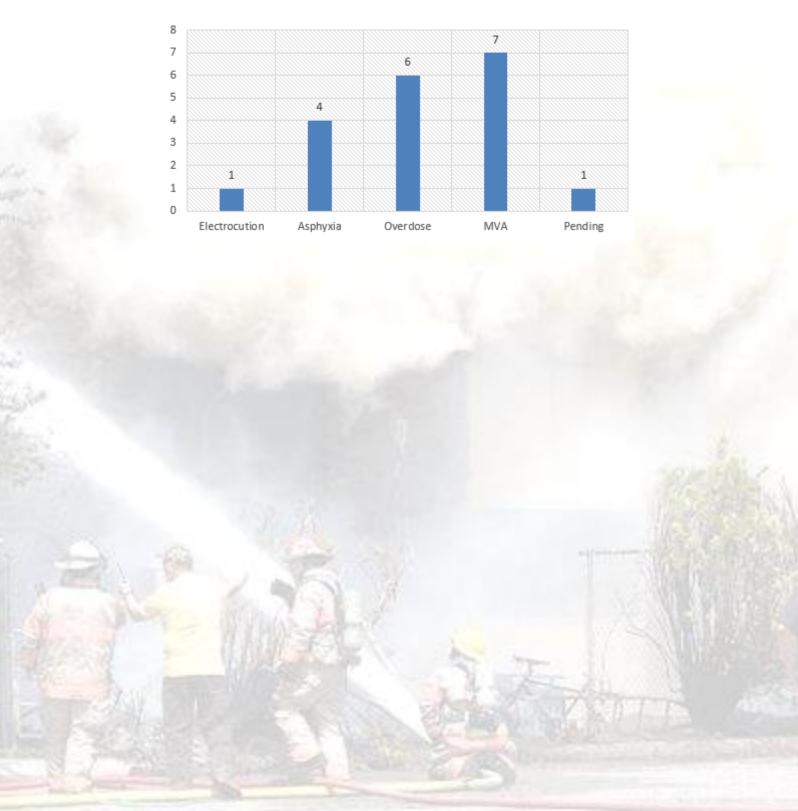
Figures obtained from the Franklin County Coroner's Annual Report support evidence of an increasing Opioid problem.

Death Due to Natural Causes:



Cardiac Events continue to lead natural death causes in the region.

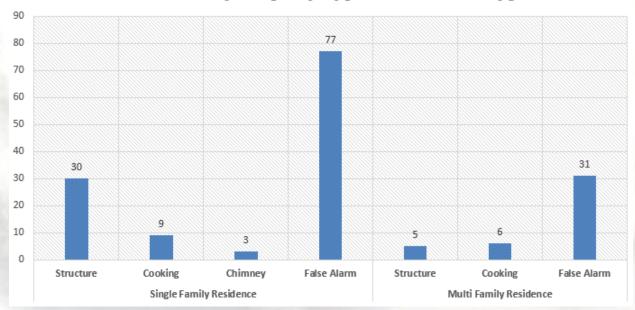
Death Due to Accident:



FIRE EMERGENCY

Residential Structural Fire Event Type

2017 Fires by Property Type and Incident Type



Analysis indicates a significant portion of fire call volume is resultant of false alarms. Cooking fires and false alarms appear more prevalent in Multi-family residences (MFR) than Single-Family residences (SFR), calculated by the ratio of fires or alarms per structure. Actual structure fire ratios between MFR and SFR align with total structure count, and are considered proportionately representative.

Temporal statistical data indicates that cooking fires tend to occur during the expected time frames based upon activity schedules of the populations. There was no significant statistical evidence that supported specific days of the week for cooking fires.

Natural Cover Fires



The fire department responded to a total of 221 grass/natural cover fires during the fire season of 2017. The fire season usually occurs between May 1st through October 31st (dependent upon weather, fuel moistures, etc.) of each year. It is notable that members of the Pasco Fire Department supported 21 large fire assignments in both Washington and Oregon States during the 2017 fire season. Natural cover fires require the response of specialized Type 6 engines (located at Station 81 and 83), in addition to specialized personnel training.

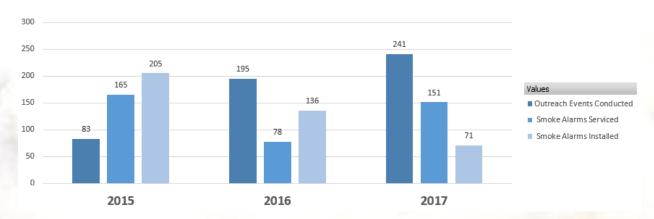
Vehicle Fires



PFD responded to 193 vehicle fires throughout 2017. As noted in the chart above, a large majority of vehicle fires were passenger vehicles. Vehicle fires require the response of a Type 1 engine and an ambulance.

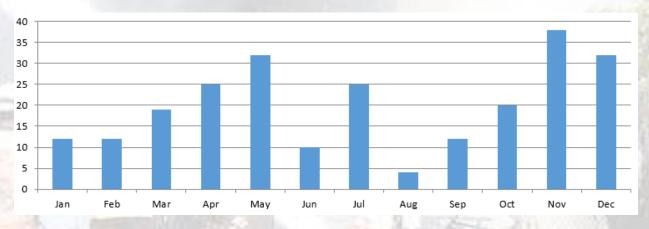
COMMUNITY RISK REDUCTION

Community Risk Reduction Outreach Tasks



In an effort to achieve a Washington State Rating Bureau Class 4 rating, the community risk reduction program tracks events and program contacts. The chart above identifies the number outreach events, smoke alarm installations and service inspections completed each year. The chart below indicates the number of outreach programs, public service announcements, and/or community safety classes completed each month of 2017. As the program is relatively new and under ongoing development, consideration of secondary level metrics to measure outcomes of outreach success is recommended; by way of example; "How has the smoke alarm program reduced the occurrences of large structure fires?"

Number of outreach sessions conducted by Month

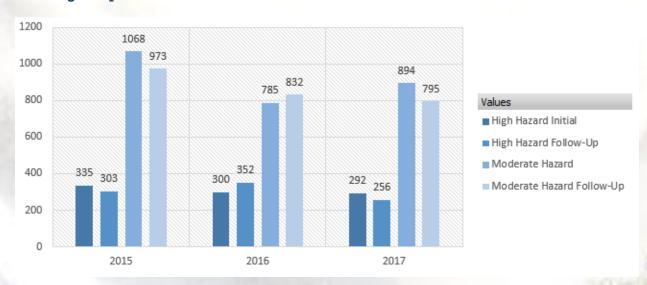


Visual representation of outreach events points to an inconsistency of outreach sessions, seasonally. Increased outreach during winter months is recommended.

Additional Community Risk Reduction Commentary:

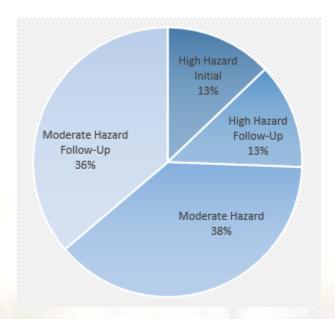
During 2017, the Community Risk Reduction Program completed a comprehensive Community Risk Analysis. This analysis identified slip, trip, and fall hazards (traumatic injury) as a preventable incident. As a result, the Community Risk Reduction program has identified key community partners, such as Meals on Wheels and the Fall Prevention Coalition of Benton and Franklin Counties in order to provide "on-scene" preventative education to reduce the instances of falls. It is hoped that through this networking a reduction of traumatic injuries will be realized.

Buildings Inspected



Pasco's building Inspection program formed in 2015, and reflects consistent decrease in facilities visited year over year. Pasco's Fire Marshall indicates this is likely attributable to ongoing efficiency gains consistent with program development - in other words, less repeat or follow up inspections required. State mandated changes to municipal business licensing may result in a marked increase in overall inspections throughout 2018 and 2019, and should be considered a risk area for planning purposes.

Inspections by Classification



The City of Pasco Inspection Services department provides annual inspections to high hazard classified buildings and bi-annual inspections to moderate hazard classified buildings.



Cost Containment

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BUDGETARY CONSIDERATIONS

Core Purpose:

Ensure fiscal responsibility as a department by monitoring expense and budget, monthly. Encourage application for and use of relevant Grant opportunities, subsidies, and other expense reimbursement programs.

Metrics Measured:

Funding, Ambulance Utility Rate History, Revenue and Expense Forecasting Accuracy

Page 45

OVERTIME & SICK LEAVE

Core Purpose:

Monitor liability, appropriate staffing levels, and leave consumption to gauge workload balance.

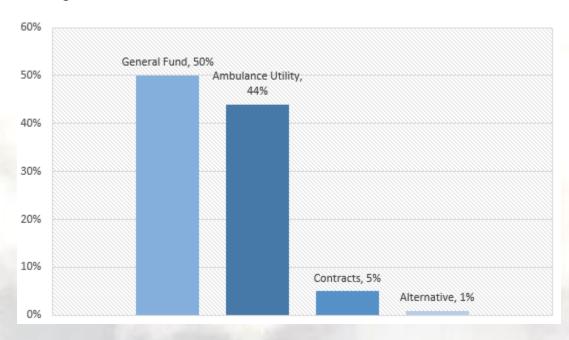
Metrics Measured:

Overtime Cost by Year Trend, Overtime by Shift, Sick Leave Utilization



BUDGETARY CONSIDERATIONS

PFD Funding Sources:



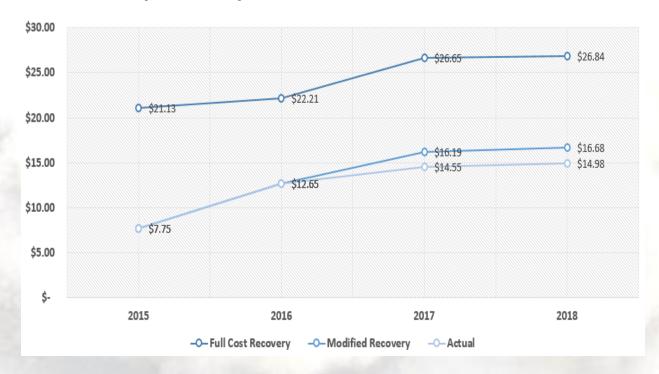
General Fund – Primarily derived from property and sales tax monies. The General Fund pays for availability and demand costs for fire service provision.

Ambulance Utility – The Revised Code of Washington (RCW) Section 35.21.766 provides all cities and towns the authority to establish an ambulance service to be operated as a public utility. The Ambulance Utility supports the availability cost of the ambulance service; demand costs are recuperated through fees for services provided.

Contracts – Contracts provide cost reimbursement for services. Contracts may be held in partnership with private, local, or state entities such as the Department of Natural Resources.

Alternative - includes one-time funding such as grants

Ambulance Utility Rate History:



An Ambulance Cost of Service Study was completed in 2015. The study recommended the Ambulance Utility Fee for full cost recovery to be \$21.13/month. Staff recommended at the time, and Council adopted, a more modest rate of recovery and adopted a rate of \$12.65/month. The cost of service study and adopted rate anticipated the Ground Emergency Medical Transportation (GEMT) funding to be realized in the third quarter of 2017 to supplement increasing costs of the service. The supplemental payments (GEMT) cover the funding gap between a provider's actual costs as defined by the GEMT and the allowable amount received from Washington Apple Health (Medicaid) and any other sources of reimbursement. The 2017 budget anticipated \$0.8 million of GEMT revenue that did not come to fruition due to delays in finalization of the policy at the state level. The City is on track to complete application for GEMT supplemental funding in the first quarter of 2018. Current budget anticipates receiving \$1.75 million in GEMT reimbursement for the period of June 2016 to December 2018. Additionally, the City Council has also approved changes to its Ambulance Utility fee billing structure to be based upon equivalent residential units (ERU), rather than a single standard fee. The City in on track to create an Ambulance service that is financially self-sufficient, and healthy with an equitable rate structure.

Expense Budget Forecasting Accuracy – Year/Year Trending by Fund



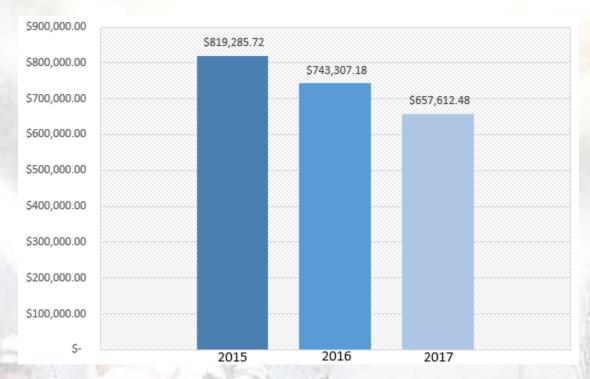
Budget Performance Discussion:

The fire department manages over 302 budgetary accounts and has generally forecasted expenses within a 95% accuracy for the past two years in both the Ambulance Utility (AU) and General Funds. Variances noted in the AU forecasting accuracy can be attributed, in part, to the recent volatile nature and fluctuation of medication costs.

OVERTIME & SICK LEAVE

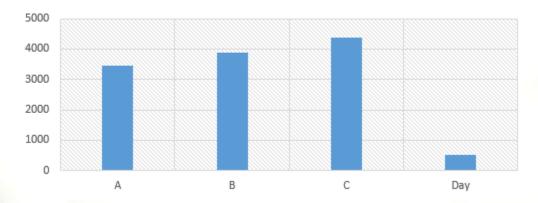
One of the challenges to the success of fire service administration primarily stems from scheduling, staffing, and environmental implications. Multiple work schedules, time off usage and sick leave utilization driven by consistent exposure to sick patients, often leave departments spread thin. Minimal staffing results in a greater instance of overtime. Overtime, if not contained, can result in an increased risk of injury. Further, the very nature of emergency service provision inherently requires an increased degree of risk acceptability. Opportunities to mitigate this risk and subsequently improve overtime and sick leave utilization are considered minimal beyond training and safety protocols.

Overtime Cost by Year - Trend



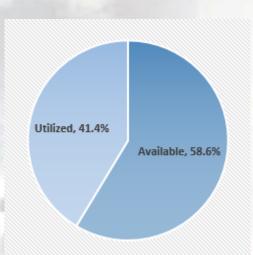
Increase in total staff levels between 2015 and 2017 directly impact total overtime by an average of 11% per year. During the same period, staffing increased by an average of 5 employees per year. In practice, this has resulted in average reduction of 25 OT hours per employee, or a savings of \$1,963.5 in OT spend per employee.

Overtime % by Shift



12,224 total overtime hours were clocked during FY 2017. This figure equates to an average of 178 OT hours per employee. The subsequent total cost of overtime was \$657,612.78. Scheduled Overtime (backfill) is the primary cost driver. This may be due to a number of issues such as; shift staffing levels, earned leave time, hiring practices, injuries. Consideration should be given to the development of a more refined method of capturing the reason for overtime.

Sick Leave Utilization



2017 department sick leave usage total 4,967 of 12,012 available hours (41.35% utilization). Average sick leave used per employee equals 75.25 hrs. (3.13 shifts per year). Annual allotment per employee is 182 hours.

PERFORMANCE

Page 48

RESPONSE TIMES

Core Purpose:

Measure against response time goals established in Council Resolution #2938.

Metrics Measured:

Total response times for all event types 2017

Page 53

INJURIES & CLAIMS

Core Purpose:

Monitor injury events to refine necessary training emphasis, identify process or procedural failures, encourage department safety.

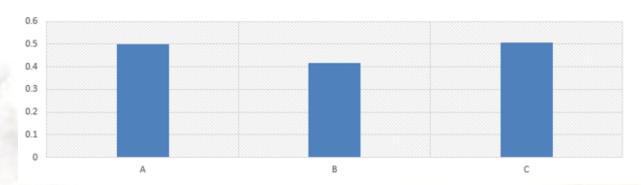
Metrics Measured:

Injuries Resulting in Claim - Trend, Scenario of Injury, Cost and Recurrence of Injury



RESPONSE TIMES

Response Efficiency Ratio (RER)

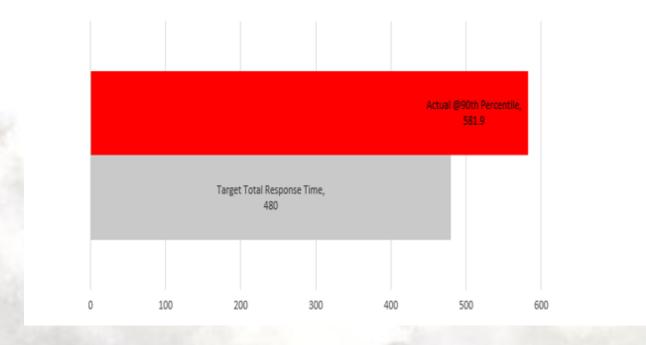


The Response Efficiency Ratio (RER) evaluates the efficiency of a shift's on-scene committed time with consideration to total call volume (the closer to 0, the more effective the shift). To understand why certain shifts maintain lower ratios, we perform a regression analysis against independent variables.

Regression analysis measures a figure that identifies, on a scale of 0-100%, how much of an outcome can be predicted by a variable- the closer to 100, the more likely an outcome is entirely dependent on that variable. In this metric, our outcome is represented as the RER by shift, and our variables can be any measure tracked by shift. We find that overtime has negligible impact on efficiency, with a factor of .018, roughly 2%. Years of experience and shift age may both have a small effect on outcome, with scores of 33% and 38%, respectively. We found training hours (score 43%), to hold the most significance of all available (tracked) variables. We conclude a good mixture of age and experience on each shift is important, and that the training program is of meaningful value.



Total Response Time (in seconds)



*Note Response Time Sampling is compiled from a representative portion 2017 call data: 4078 Calls. (95% of total data set [sampling size due to a reduction of anomalous data]).

Total response times are the sum of three time factors;

- Call processing time: caller interrogation + unit notification
- Turnout time: unit notification to "wheels rolling"
- Travel time: "wheels rolling" to until arrival

A fire department can typically maintain control of a single factor- turnout time; travel time is impacted by traffic, weather, overlapping call volume and roadway infrastructure. Call processing time is dependent on dispatch efficiency, currently managed by an external agency in the case of Pasco.

Increasing response times generally increase incident complexities, which drive resource demands and negatively impact incident outcomes.

EMS calls typically place a relatively low resource demand on the department as most EMS calls require the response of only one to two units, but place a high strain on resources due to volume. With increasing call volumes, the over-lapping of calls negatively impacts unit availabilities and may pull a primary apparatus out of its response zone, which affects next-call response times. In addition to increased response times, the greater risk to the community is the cascading resource drawdowns which occur with increased service demand and unit availability.

Response Times by Station and Shift (in seconds)



Station 84 was not included in this assessment due to limited data sample. Station 83 typically records shortest total response times, likely due to travel routes and general street configuration in the region. B Shift posts significantly more rapid response times when compared to A and C shifts. Further regression analysis comparing training hours, length of time on force, and age, are recommended to identify potential correlation of dependent to independent variables.

Station design may be a contributing factor to turnout times. Consideration should be given to the relationship of living quarters to apparatus bays in future fire station designs.

The City of Pasco is in the process of identifying and installing intersection control (signal preemption) devices. These devices will "manage" traffic flow through an intersection during emergency responses and potentially will positively affect response "travel times".

Auto/Mutual Aid Summary 2017 (measured in hours):

Aid Received:



BC1	Benton County FD1
BC2	Benton County FD2
FC1	Franklin County FD1
BC4	Benton County FD4
FC3	Franklin County FD3
FC5	Franklin County FD5
KFD	Kennewick Fire
RFD	Richland Fire
USFWS	US Fish & Wildlife
WW5	Walla Walla FD5

Aid Given:



BC1	Benton County FD1
FC1	Franklin County FD1
FC2	Franklin County FD2
FC3	Franklin County FD3
KFD	Kennewick Fire
RFD	Richland Fire
WW5	Walla Walla FD5
NFHD1	N. Franklin Hosp.
WAFM	Large Fire Mobe

As depicted in the graphs above, the City of Pasco Fire Department is heavily reliant on Auto/Mutual Aid primarily from: Franklin County Fire District #3, City of Richland and City of Kennewick. This reliance is attributable to daily staffing of less than a "full effective force" as defined by the Standards of Cover document and existing agreements between auto/mutual aid agencies. Further, the relatively high over-lapping call volume pulls primary units and responders out of position, thus increasing the reliance on auto/mutual aid.

Water Rescue



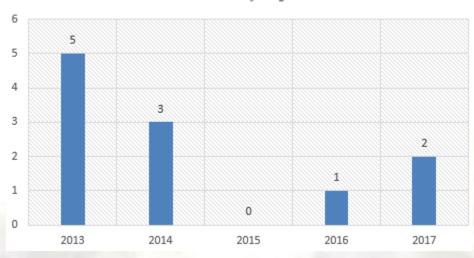
The Pasco Fire Department water rescue program was established in 2016. The goal of the program is to develop a focused preparedness and response program for water related safety and incidents. The City of Pasco services 13 river miles along the Columbia River. Since program inception, the water rescue program has responded to over 75 river emergencies. The program works collaboratively with Columbia Basin Dive Rescue, Benton, Franklin, and Walla Walla Sheriff's Offices and the US Coast Guard – Kennewick. The Rescue Boat is located at the Pasco Marina and is crewed by Station 81 staff.



INJURIES & CLAIMS

Personnel "Lost Work" Claim Injuries - Annual Trending:

Lost Work Injury Claims



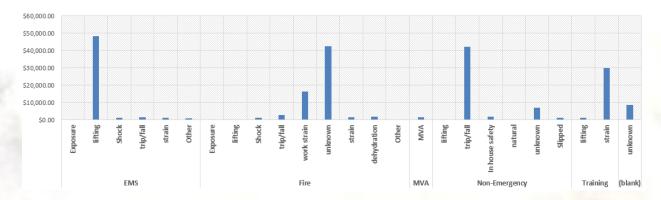
Personnel Labor and Industries claims for injuries do not represent trending or control. Further analysis of injury recurrence and cause, is identified below.

Scenario of Injury



As expected, 52% of injuries result from EMS scenarios while 22% stem from Fire response, commensurate with overall call volume, incident time and risk allocation.

Injuries Resulting in Claim by Scenario and Injury Classification, with Cost - 2017 Only



Additional lift training and emphasis on lift assist to be prioritized in 2018. Administration to partner with the City of Pasco Safety department to re-write data collection and communication process with the intent to reduce unknown, other, or blank injury report submissions. Additional precaution to be taken in training tasks. Root cause analysis of trip/fall incidents in stations to be addressed.



QUALITY

Page 56

PUBLIC SATISFACTION

Core Purpose:

Evaluate community feedback mechanisms to improve service levels and improve department satisfaction.

Metrics Measured:

Approval Rating by Service Type, Annual Approval Rating – Trend, Cost/Response/Staffing evaluation

Page 58

EMPLOYEE SATISFACTION

Core Purpose:

Monitor Staff satisfaction to identify opportunities to improve morale and department effectiveness.

Metrics Measured:

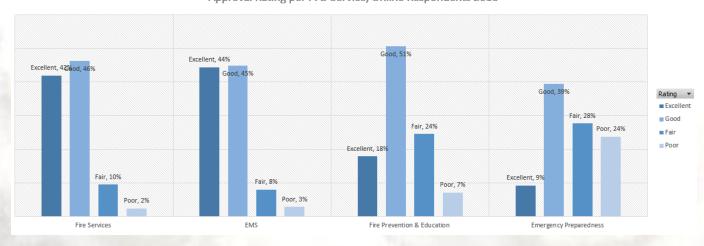
Internal Department Satisfaction Rating



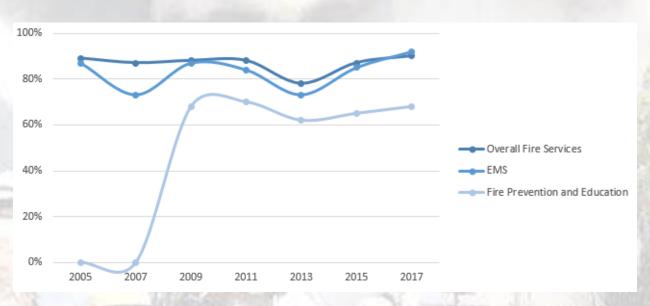
PUBLIC SATISFACTION

Approval Rating by Service Type

Approval Rating per PFD Service, Online Respondents 2016



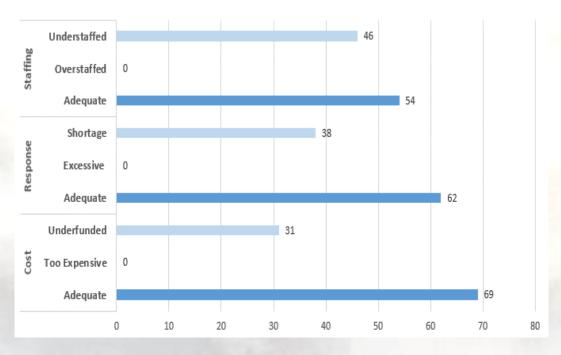
Annual Approval Rating - Trend



Generally, the Pasco Fire Department experiences a high customer satisfaction rating, with 90% and 92% of the respondents rating emergency services responses (Fire and EMS respectively) as either good or excellent. Fire Prevention and Education scored 68% as either good or excellent. It is recommended the department develop a follow-up questionnaire in order to further explore customer response and provide timelier customer feedback.

Cost, Response, and Staffing Survey

During the Strategic Planning process, Emergency Services Consulting, International (ESCI) asked constituent groups to rate department cost (budget), response capabilities, and staffing levels.



The citizen strategic planning group's responses in the chart above indicate that Pasco Fire Department costs and responses (equipment) are appropriate. Nearly $\frac{1}{2}$ of the survey group felt the department was understaffed.



EMPLOYEE SATISFACTION



During the strategic planning process, ESCI anonymously polled an internal group representing 83% of the department to identify and rate overall department morale. Survey questions centered on personal work environments, individual morale and the perception of organizational morale.

The conclusion of ESCI with respect to this measure is as follows: "The members of the Pasco Fire Department are proud of their organization and proud to work for it..."



RESULTS SUMMARY

As stated previously, Fire Department Administration is as much about numbers, statistics and trends as it is personnel management and emergency services delivery. The future success or failure of a fire department will depend entirely on its ability to collect, monitor, and analyze relevant information in an accurate and meaningful manner.

The Pasco Fire Department has, as a function of this report, embarked on a process to examine and analyze relevant data key to the success of the organization, as defined by the City Council, external and internal stakeholders, and collaborative agencies. Certainly, such an in-depth analysis often creates more questions than answers, but as a result has yielded a more refined and intentional decision-making process.

Recommendations for improvement and actionable items may be found in the following chapter, Recommendations.

Operational Readiness

The Pasco Fire Department is considered to be within the target range of operational readiness. Recent increases in staffing, the acquisition of additional fire engines, the addition of Station 84, and upward trending in total training hours, will all positively contribute to response times and service quality and availability.

There is a direct, inverse relationship between population growth and operational readiness, assuming preparation and resources remain static. Concurrent with recent development and expansion in Pasco, increased population drives service boundary distances, traffic congestion and consequently total response time. A regular periodic and consistent review of population densities and movement patterns to maintain service provision is necessary.

Community Wellness

The department has formed a Community Risk Reduction program to better serve and support community wellness and safety. The metrics and analysis performed in this report will enable and more accurately target opportunities for programs such as Mobile Integrated Healthcare to maximize value and return.

As a relatively new program within the organization, the Community Risk Reduction program has yet to identify meaningful statistics. The development of a consistent method to identify trends that ultimately lead to intervention strategies will be necessary. Additionally, it is expected that the advent of an empirical approach to such programs will positively impact the following pillar, Cost Containment.

Cost Containment

As discussed in the subchapter Budgetary Considerations, there is opportunity to refine the operational budget through more accurate identification and exploitation of one-time funding opportunities such as grants, etc. and application of support funding programs, such as GEMT. Discretionary leave (overtime, sick, holiday, etc.) use is being monitored in an objective manner that allows for more educated legacy hiring practices and effective management decisions.

Performance

Response times are anticipated to improve in 2018, with the establishment of Station 84 and additional support staff. Further, the transition to a new dispatch center is expected to significantly reduce total response times through the reduction of Call Processing times.

A significant take away from conducting the research and analysis of this report is the recognition of an absence of appropriate "outcome" statistics. Traditionally, Fire and EMS performance has been measured by either dollars lost vs. dollars saved, or average response times. These metrics are subjective and often inaccurate representations of the true intent of Fire and EMS services; positive outcomes. The Pasco Fire Department, as a key action item stemming from this study, will explore and develop alternative metrics to more effectively gauge Fire and EMS services provided.

Tentatively, the measure of arrival time to the time of stop-loss (Time of hostile fire activity cessation) for fire incidents, and the outcome ratio of positive/negative resolution for EMS events, will be explored.

HIPPA legislation has limited useful data due to reticence of medical providers sharing important demographical information. A greater understanding and agreement between organizations (receiving medical facilities and EMS providers) of the need for and use of patient information is needed. The current state of reliance on regional data does not provide specific empirical metrics that will guide the decision-making processes of local authorities.

Quality

Perhaps most difficult to measure but undoubtedly important, community and staff satisfaction are within more than acceptable range with regard to emergency medical and fire services. Efforts to continue to monitor public and employee satisfaction are recommended.



RECOMMENDATIONS

Technical Competence

The department will monitor 2018 training performance against 2017 figures, with a tentative baseline target of 280 hours. Preliminary subject allocation of training hours recommended as follows:

180 or 240 hours - Fire specific training (FF1, and non-credentialed, respectively)
24-36 hours specialty training per qualification
36 hours EMS training
20 hours' apparatus/operator training

As noted in PFD length of employment figure, employment length is emphasized in the less than 5-year category. To encourage department tenure and align with strategic planning objectives, the development of an individualized career mapping program is recommended to encourage employee ownership and technical competence.

Apparatus Reliability

Administrative visibility to apparatus condition and efficiency is limited by current process, program, and reporting structure. Cross departmental coordination for the streamlining of fleet cost and condition communication is recommended. A centralized dashboard or readily available and accessible report containing cost per mile, out of service time, preventative maintenance schedule and programmed apparatus life expectancy is recommended.

Continue to monitor unit hour utilization and mileage v. cost rates as a determinate for both optimal percent utilization range and apparatus replacement.

Call Volume Metrics

Call volume by type is expected to remain relational to population size and age, and density, however, monitoring density and population movement areas as a planning mechanism for forward response centers and stations with the intent to control and mitigate response time, is recommended. Temporal trending, specifically call volume by hour, indicates the presence of peak demand times between 8:00AM and 8:00PM. Modeling of unit hour utilization with call type, in combination with temporal trending during peak demand times may unveil staffing and response efficiency opportunities, such as mobile integrated healthcare or peak demand units.

Response Times

Technological improvements such as AVL (automatic vehicle location), traffic control technology (signal pre-emption devices), automated vehicle routing software and consistently updated and accurate mapping will improve response performance.

Station design may be a contributing factor to turnout times. Consideration should be given to the relationship of living quarters to apparatus bays in future fire station designs.

As indicated on page 43, travel response times are a primary cause for total response time overruns. Travel response is largely dependent on traffic and infrastructure. An emphasis on cross departmental planning efforts with regard to future expansion and infrastructural planning is of paramount importance as the City continues to grow at such a rapid page.

Community Wellness

Current metrics within the Pillar of Community Wellness are intended to serve as a monitor of community needs that will ultimately act as a guiding tool for the focused delivery of specific programs and responses. By continually evaluating primary event types, patient demographics, and respective outcomes, the department stands to better refine and deliver operational value.

The core intent of the community risk reduction program is to provide collaborative efforts with community social services to intervene and mitigate potential emergencies before reactionary emergency response becomes necessary. As the program is in its infancy, measuring outcome relation to myriad variables will guide the ultimate direction and development of program efforts.

Cost Containment

As evidenced in the report, the fire department manages the 302 individual accounting codes fairly accurately as projected expenses average 95% accuracy. Identification and solidification of alternative funding mechanisms must remain a high priority.

Methodology for capturing leave use by reason code is to be established in reporting and timekeeping practices.

Quality

A significant driver of overtime and department strain stems from the burden of working around unfilled positions. Developing and maintaining a hiring and promotional list will reduce turnaround time for replacement of unfilled positions, in turn reducing department strain and budgetary cost overruns.

Public Satisfaction is impacted by cost, care and quality of service. Increased transparency and direct feedback from the community are of significant importance to the department. Accordingly, the development of an after service questionnaire serving as a feedback mechanism to the department, is highly recommended.

Additionally, employee retention is a core component of department quality, directly impacting cost, technical competence, and cultural tone. Monitoring average length of service and department morale will serve as a guiding mechanism for determining internal department quality.

Author's note:

Thank you for taking the time to read and review the Pasco Fire Department's 2017 Performance Report.

You may have noticed the watermark on these pages: The image depicts the Pasco Fire Department responding to a commercial structure fire. Of particular interest, Pasco Fire Chief Gear is speaking with Deputy Chief Hare, providing guidance regarding the operational plan. The plan in this image consisted of keeping the fire between "here, and here" as noted by Chief Gear's gesture in the image. How relevant, then, is this picture in relation to the efforts of this document and further, the direction of the industry?

As with every emergency response, the administration of the modern fire department must identify and collect relevant information; establish target parameters; then formulate and execute the plan.

As the organization and its respective programs develop, we must determine not only what we are trying to accomplish, but also how we are going to measure its success (or failure). The Pasco Fire Department's what (or parameters) have been set forth by citizens, customers, employees, and the City Council. This document serves as the first step in addressing how the organization will refine and improve upon those objectives.

The practice of continually monitoring performance against ever changing variables and expectations will serve us well in the pursuit of excellence.

