



INFORMATIONAL MEMORANDUM

TO: Community Services & Safety Committee
FROM: Jay C. Wittwer, Fire Chief
Norm Golden, Deputy Chief
BY: Jay C. Wittwer, Fire Chief
CC: Allan Ekberg, Mayor, David Cline, City Administrator
DATE: 04/29/2022
SUBJECT: 2021 Fire Department Annual report

CURRENT STATUS

The Fire Department provides an Annual Report each year that addresses the activities of the department and service given to the community. This report is being presented to the City Council for feed back before the report is released to the community.

DISCUSSION

This Annual report has been provided every year starting in 2016. The information provided allows the community to understand the services provided and allows the policy makers to realize the outcomes of this valuable emergency service to the community.

FINANCIAL IMPACT

No direct financial impacts are realized from this report. This report is provided as information only.

RECOMMENDATIONS

The City Administration and City Staff are recommending that this report is to be shared with all city councilmembers and released to the community.

ATTACHMENTS

1. Power Point presentation: 2021 TFD Annual Report

2021 ANNUAL REPORT



Tukwila Fire Department
15447 65th Ave South
Tukwila, WA 98188
www.tukwilawa.gov





I am honored to share this annual report for 2021 and to serve alongside those that call Tukwila Fire Department home. Our department is a well-supported, dynamic, and an essential resource for our community. I view each of our department members as elite professionals.

As a department we foster cooperative labor management principles and empower employees to facilitate continuous improvement and growth. Complacency and static energy are actions that do not exist in our organization.

The Tukwila Fire Department is a strong regional partner that provides services to protect communities in the Puget Sound area. We have 65 assigned personnel serving the City of Tukwila and the surrounding communities. Four fire stations are strategically placed within the 9.6 square miles that make up the footprint of Tukwila. Two of the four fire stations have been relocated and opened in the past 15 months.

These fire stations provide a safer environment for our fire-fighters, that translates to a higher degree of service to the communities we serve. The Community has invested in high-quality equipment including fire engines custom built to serve the Tukwila community. We operate three engine companies and a ladder truck company.

Divisions within the Fire Department include Administration, Support Services, Operations, Training, and Fire Protection.

This annual report outlines much of what we do every day of the year to support the community. Statistics, by themselves, do not characterize the dedication our members put forward in carrying out our mission, vision, and values. I am extremely proud of our professional staff that have been on the frontlines working through this world-wide pandemic. Many of our members have been active in the community by serving on their days off at our Tukwila Covid testing site and delivering vaccinations to community members. We are committed, competent and will continue to prove we care about this community with a high level of service that our diverse community deserves. I thank the community for allowing me to guide this department and for the wonderful support we receive.

High Regards,



Jay C. Wittwer, Fire Chief

MAYOR'S MESSAGE

As I think about the 2021 Tukwila Fire Department annual report, the overarching theme that comes to my mind is gratitude. Gratitude to the residents in Tukwila that funded the Public Safety Plan and allowed us to open two state of the art Fire Stations to protect our community and our firefighters, and gratitude to the public servants who make up the Tukwila Fire Department and daily serve Tukwila's residents, businesses, and guests.

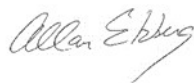
Because the voters of Tukwila that came together to support the City's Public Safety Plan, in late 2020 and early 2021, the city was able to open Fire Stations 51 and 52, respectively. These new and relocated stations allow for better deployment of fire and aid services to our community. They were constructed to provide opportunities for the best response times into our community, including locating firefighter bunk rooms on the first floor and bay doors that open quickly to allow an apparatus to rapidly leave the station on a call. The new stations allow for more training opportunities for fighter fighters and modern amenities that help with firefighter recruitment and retention. Both stations were also constructed with firefighter health and safety top of mind. Each has an airlock between the "dirty" area, where potential carcinogens from fires can live, and the "clean" areas where firefighters spend their time, such as the offices, ready room, and bunks. Thank you to the Tukwila community for recognizing the need for these new stations and supporting their funding.

My gratitude also extends to the men and women of the Fire Department who faithfully serve this community. During the difficulties of the pandemic, it was our Fire Department out in adult family homes and with homebound seniors ensuring that these populations received lifesaving COVID vaccinations. The Department supported the Tukwila School District with vaccine clinics, as well as other community-focused opportunities to keep people safe from COVID. Fire also collaborated with Seattle King County Public Health, Church by the Side of the Road, and other partners to successfully launch the COVID testing site that has been a critical resource for our community and the broader region throughout the pandemic. And, of course, members of the department have been continuing to provide fire and medic services in our community. While the Maple Crest fire was devastating to our community and the family that perished, I couldn't be prouder of the Tukwila Fire Department – and the broader community's – response to this tragedy.

Thank you to the Tukwila Fire Department and Tukwila community for all the work and investments in keeping our fire and aid response strong.



Respectfully,



Allan Ekberg
Mayor

2021 CITY COUNCIL



Position 1 - Verna Seal

Position 2 - Kathy Hougardy

Position 3 - Thomas McLeod

Position 4 - Cynthia Delostrinos Johnson

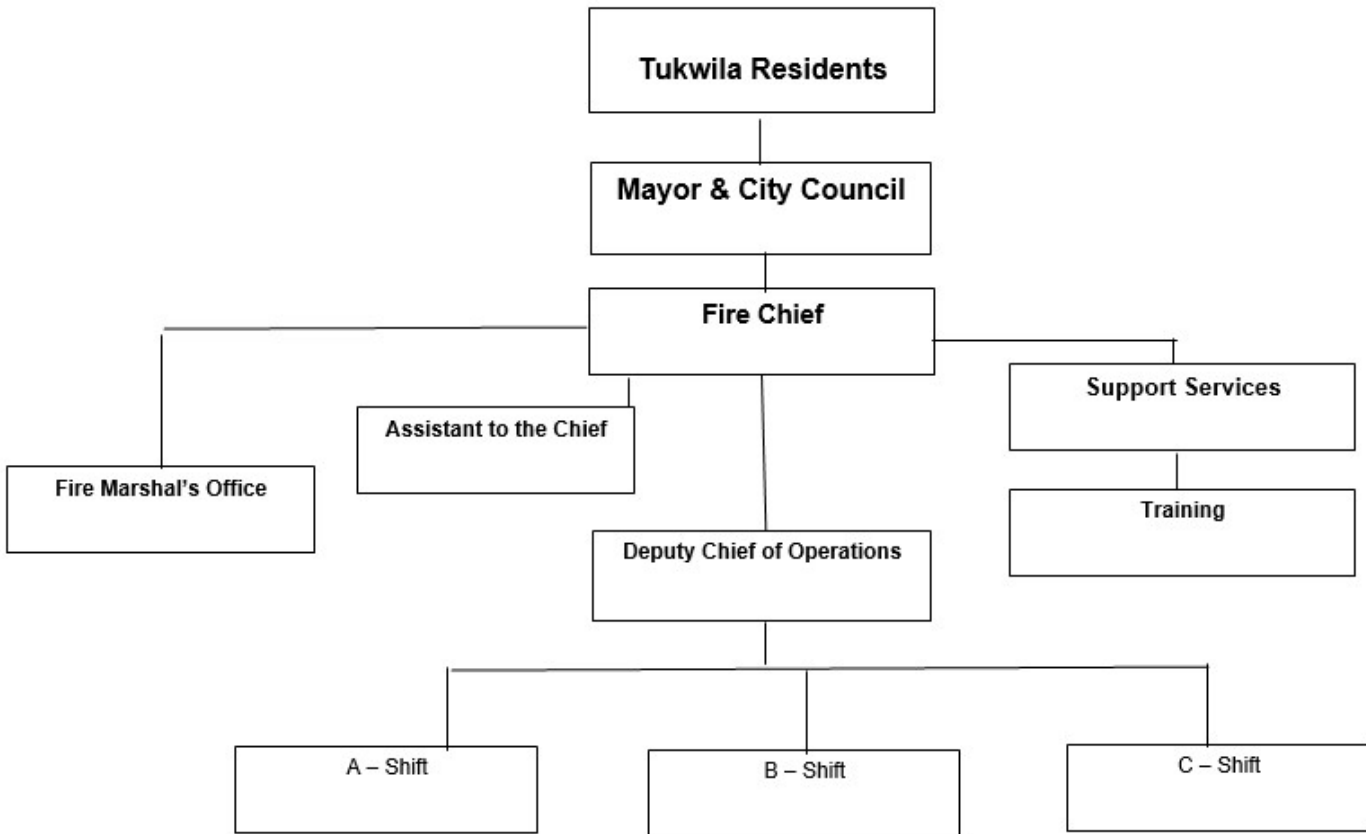
Position 5 - Zak Idan

Position 6 - Kate Kruller

Positions 7 - De'Sean Quinn



Organizational Chart



FIRE STATIONS



STATION 51
17951 Southcenter Pkwy



STATION 52
15447 65 Ave S

*Opened February 2021



STATION 53
4202 S 115 ST



STATION 54
4237 S 144 ST

Tukwila Fire Department

City of Tukwila Facilities



9.65 SQ Miles

20,930 Residential
Population

150,000 Daytime





The department responded to 6.869 calls of service during 2021. This includes many different types of emergency and non-emergency calls. It is possible to display the information in a variety of ways to tell the story of the work that is done 24 hours a day, 365 days a year. Information concerning responses is displayed within the following pages of this report; however, just recording the work of the responders does not tell the whole story. Behind the fire and medical response, 11 members of the department work in various capacities to keep the department running.

RESPONSE TIMES:

Most people are comfortable talking about averages, but it's important to note that with an average one half of the responses take longer than the "average". That can be very disconcerting when you are the one waiting for a firefighter. A better way to report response times uses 90% response times. This means that nine out ten times, the caller can expect the units to arrive in the specified time or less. It is a much more accurate planning number. Response times in the tables show both response time average and 90% response time.

CARDIAC ARREST SAVE RATE:

Cardiac Arrest save rates are calculated using the Utstein Criteria, an internationally recognized cardiac arrest resuscitation measuring criteria. This criteria looks at a specific type of cardiac arrest and considers the outcome to be a save if the person leaves the hospital after the event and returns to their post-event level of activity.

These data points are reported to each agency by King County Emergency Medical Services. The average save rate over the past five years for King County has been 50 percent range. For the Tukwila Fire Department the five year rate is at 55 percent. This number in Tukwila is reflected by early bystander intervention, a quick response by the South King County Medic One Paramedics and an adequate number of trained firefighters being immediately available to respond.

All data used in this report was provided by the Valley Communications Center and King County Emergency Medical Services.

The City Council approved Resolution 1977 on December 2, 2019, this set performance standards for the Fire Department. These standards are found on the following pages.

The goals are based upon saving lives and property. Defined goals are expected to be performed nine out of ten times or 90% of the time. Data shows The Tukwila Fire Department (TFD) is meeting or exceeding within 3% of the standards set in Resolution 1977. Continual improvements are being made to enhance these performance standards. Relocating two current Fire Stations and updating equipment used by the firefighters are examples of these efforts.

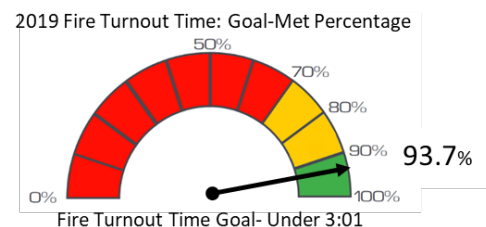
Measuring Performance

Performance Goals are illustrated in categories:

Green: TFD is meeting or exceeding the goal

Yellow: TFD is reasonably close to meeting the goal.
(The difference between an 88% and 90% is just 3 to 4 seconds)

Red: TFD is not meeting the goal and focused effort should be made to improve performance.



Performance will be displayed similar to the format above.

The Department responded to 6,869 calls in 2021. Information about responses is displayed below; however, just recording the work of responders does not tell the whole story. Along with the Firefighter EMT's on the front line, there are 13 members of Tukwila Fire who work in vital administrative capacities to keep the Department running efficiently.

Department Data Overview Updated #'s 2/15/22

2021 Fire Turnout Time: Goal-Met Percentage



Turnout time is the time from when the fire station is alerted to an alarm until the vehicle leaves the fire station.

Our 2021 goal was to meet 3:01 for fire-related calls and 2:38 for medical-related calls 90% of the time. In 2021, we exceeded this goal with a rate of 95.33% of the calls were within this goal.

2021 Fire Response Time: Goal-Met Percentage



Response time is the time from when the fire station is alerted to an alarm until the crew arrives at the incident.

Our 2021 goal was to achieve 7:59 for fire-related calls at least 90% of the time. In 2021, we met this goal 87.62% of the time, which translates into a few seconds from this goal.

2020 Fire 1st Alarm Response Time: Goal-Met Percentage



"First Alarm Response Time"

is how long it takes all of the apparatus to arrive at a fire-related incident, including ones that may be travelling from further away.

The 2020 goal was for the last-arriving vehicle to arrive within 9:29 at least 90% of the time. In 2020, we met this goal 86.4% of the time, which is within a few seconds of achieving this goal.

2021 data is not currently available.

Turnout time is the time from when the fire station is alerted to an alarm until the vehicle leaves the fire station.

Our 2021 goal was to achieve a turnout time of 2:38 for medical-related calls at least 90% of the time, which in 2021 was met at 91.97%.

2021 EMS Turnout Time: Goal-Met Percentage



Response time is the time from when the fire station is alerted to an alarm until the crew arrives at the incident.

Our 2021 goal was to achieve 7:52 for medical-related calls at least 90% of the time. In 2021, this goal was met at 85.42% of the time which is a few seconds from this goal.

2021 EMS Response Time: Goal-Met Percentage

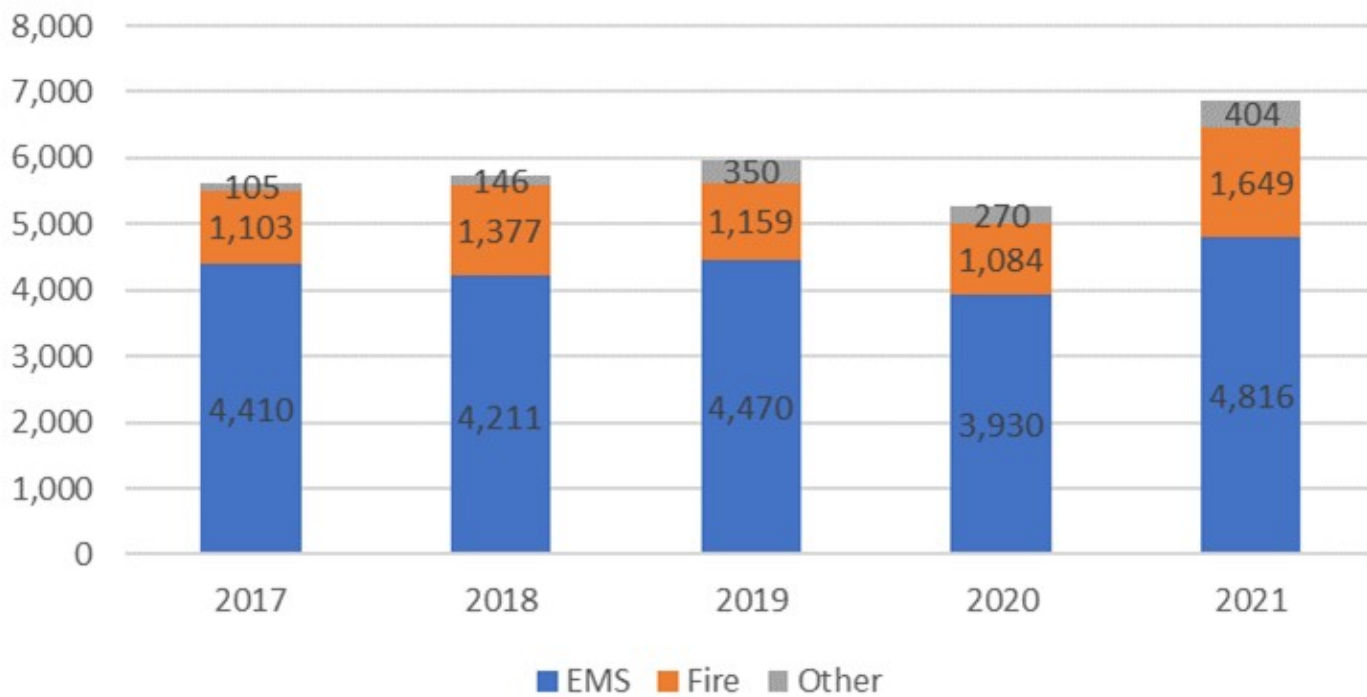


Although measuring the average response time for a fire department can be useful, the definition of "average" means that many of the people needing help could be waiting a lot longer for the fire department to arrive. Talking only about the average doesn't describe that. Instead, we set annual goals of responding 90% of the time within a certain time limit. These goals, and how we performed in meeting them, are shown in the graphs.



FIVE YEAR HISTORY OF VOLUME AND TYPE

Annual Call Volume by Response Type

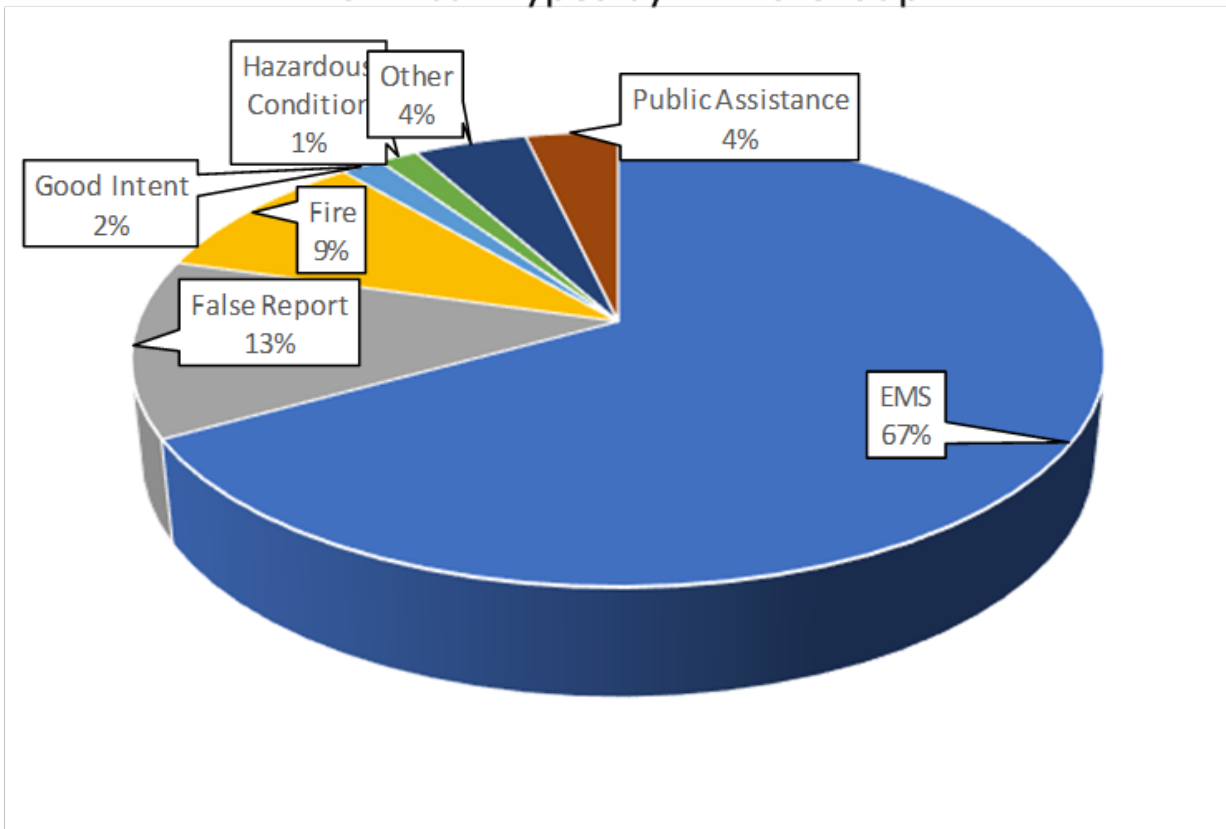


	EMS	Fire	Other	Total
2017	4,410	1,103	105	5,873
2018	4,211	1,377	146	5,734
2019	4,470	1,159	350	5,979
2020	3,930	1,084	270	5,284
2021	4,816	1,649	404	6,869

2016 - 2021 Calls By Type

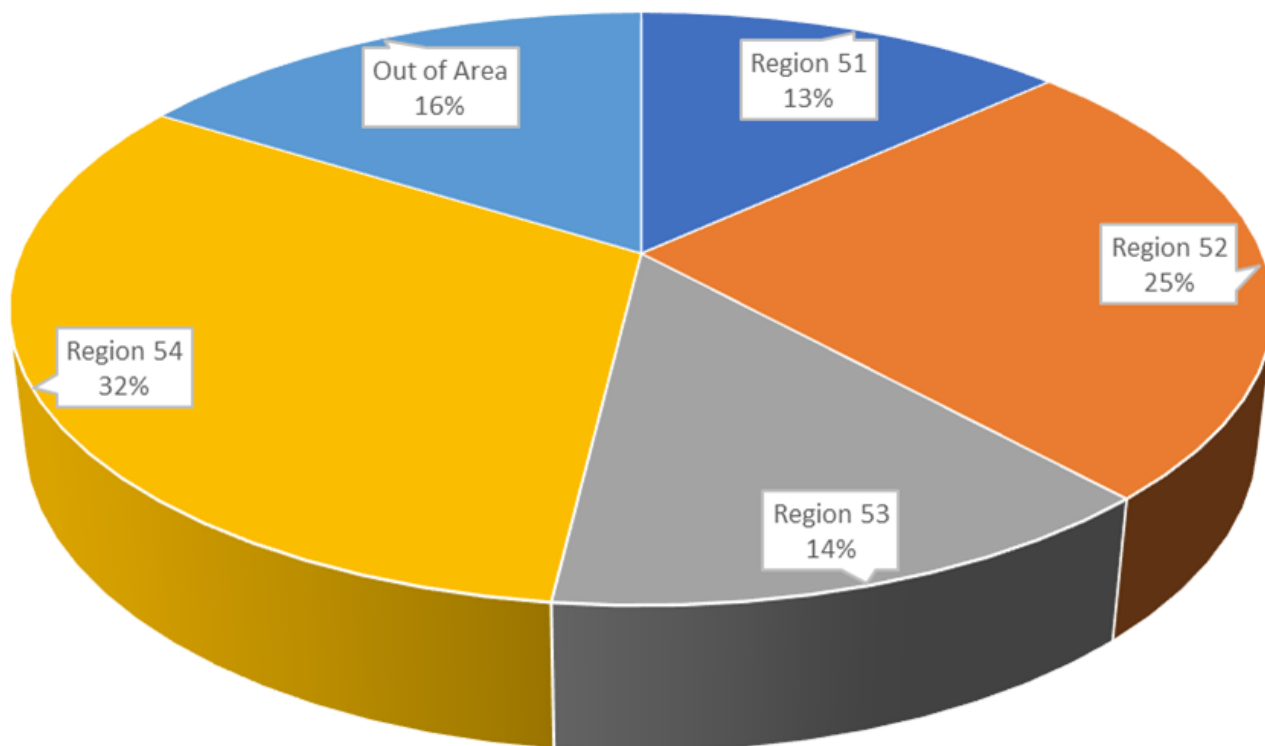
Call Type	2016	2017	2018	2019	2020	2021
EMS	4,308	4,667	5,498	4,445	3,852	4,592
Explosion	2	5	2	6	5	-
False Report	699	794	680	780	644	867
Fire	388	364	392	380	394	643
Good Intent	49	63	67	69	88	111
Hazardous Condition	114	113	85	113	75	106
Other	16	18	21	31	42	303
Public Assistance	175	165	173	184	192	247
Weather	-	2	-	3	-	-
Total	5,751	6,191	6,918	6,011	5,292	6,869

2021 Call Types by NFIRS Group



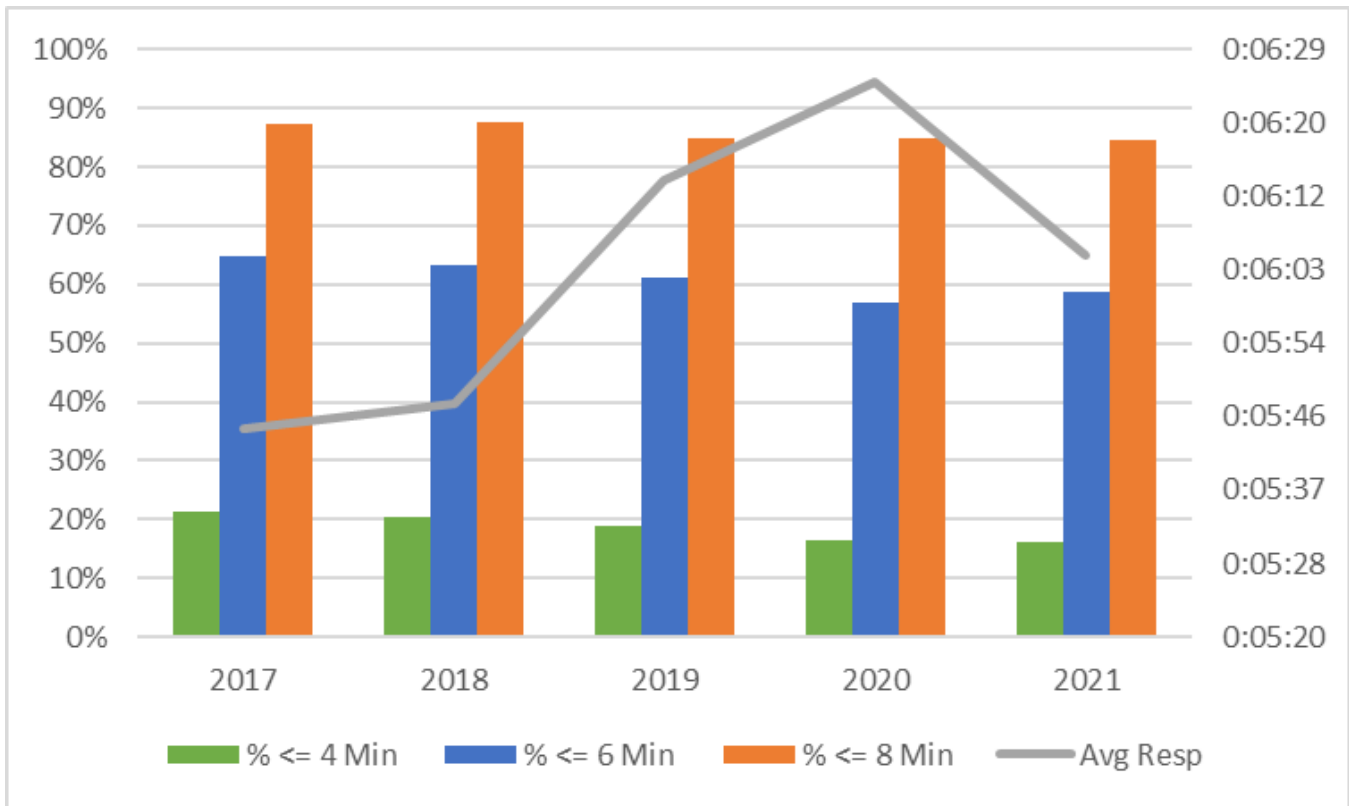
2021 CALL DISTRIBUTION

2021 Call Distribution



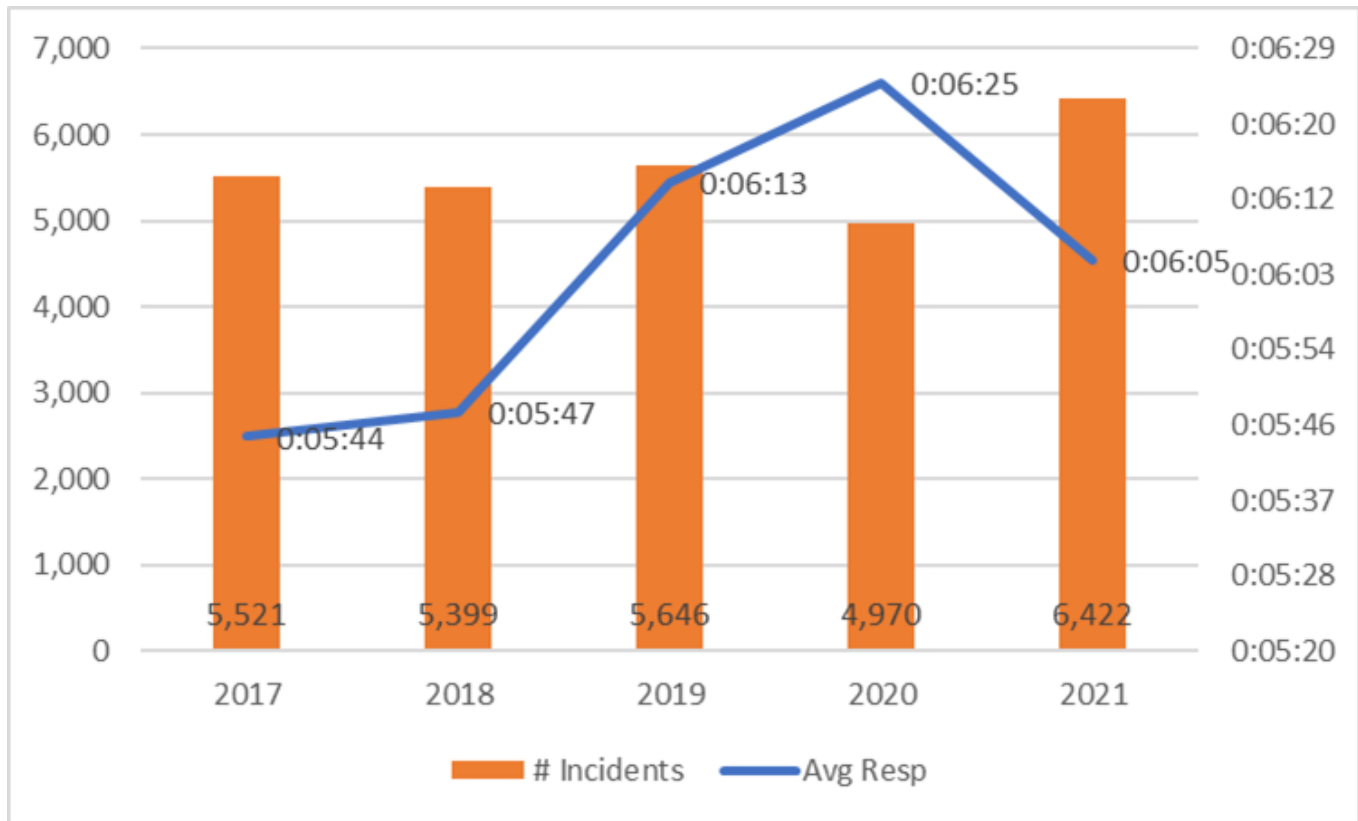
Region	Number of Incidents	% of Incidents
Region 51	908	13%
Region 52	1,719	25%
Region 53	937	14%
Region 54	2,196	32%
Out of Area	1,109	16%
Grand Total	6,869	

AVERAGE RESPONSE TIMES



Year	Avg Resp	% <= 4 Min	% <= 6 Min	% <= 8 Min
2017	0:05:44	21%	65%	87%
2018	0:05:47	21%	63%	88%
2019	0:06:13	19%	61%	85%
2020	0:06:25	16%	57%	85%
2021	0:06:05	16%	59%	85%

AVERAGE RESPONSE TIMES



Year	Avg Resp	# Incidents*
2017	0:05:44	5,521
2018	0:05:47	5,399
2019	0:06:13	5,646
2020	0:06:25	4,970
2021	0:06:05	6,422

*This chart and table includes only those incidents where a unit arrived on scene. Because of this, the totals may not match other totals shown elsewhere in this report.

National Fire Protection Association (NFPA) is a non-profit self-funded organization established in 1896, that is devoted to eliminating death, injury, property, and economic loss due to fire, electrical, and other life safety events. NFPA produces codes and standards for elected officials to consider when making decisions for the fire department. These are not laws or mandated regulations, but nationally recognized "best practices."

NFPA 1710 (Adopted August 2001, revised in 2004, 2010, 2016) - Standard concerning personnel deployment and response times to fires and medical emergencies for career fire departments. This is the first internationally recognized industry standard to set comprehensive minimum criteria for safe and effective fire operations. Over a decade of scientific evidence and research produced these recommendations. National Institute of Standards & Technology (NIST) conducted fireground field experiments were conducted to determine the optimal Crew Size recommendations. (*NIST Technical Note 1661*)

Fire Growth – A fire will grow 16 times larger in just 3 minutes.

Flashover – Can occur in less than **10 Minutes** in Low Hazard Residential Fire

How many fire fighters are needed to put out the fire and rescue anyone trapped in the fire?

Staffing for 1st Alarm (Effective Fire Fighting Force) -

Residential Fire (Single-Family House) = Dispatch **15 Fire Fighters** in the initial alarm

Strip Mall or Garden-Style Apartment Fire = Dispatch **28 Fire Fighters** in the initial alarm

Highrise Building Fire (min. 7 stories tall) = Dispatch **43+ Fire Fighters** in the initial alarm

Response Time Recommendation (does not include 1 minute for turn out) -

First Arriving: **4 Fire Fighters** within **4 minutes** - 90% of the time

Effective Fire Fighting Force: **15 Fire Fighters** within **8 minutes** - 90% of the time

NFPA Recommended Staffing on each Engine or Truck – 4 Fire Fighters (Residential Neighborhoods), 5 Fire Fighters (High Call, Limited Access), 6 Fire Fighters (High Hazard, Highrise).

Zone 3 uses aid agreements to deploy resources to help meet the NFPA standards. Very few resources meet the standard for crew size on Engines or Trucks. Most in Zone 3 staff Engines and Trucks with 3 Fire Fighters.

Tukwila fire responds out of four stations strategically located over 9.6 square miles. Each fire station is staffed with a minimum of one captain and two fire fighters. A battalion chief is located at the headquarters in fire station 52 and is the shift supervisor for the day. All stations are staffed with a fire engine except for station 54. A ladder truck, and not a fire engine, is located at fire station 54.

All fire fighters are cross trained as Emergency Medical Technicians (EMTs) and able to provide medical care to the community. Patients requiring transportation to a hospital are taken by private ambulance.

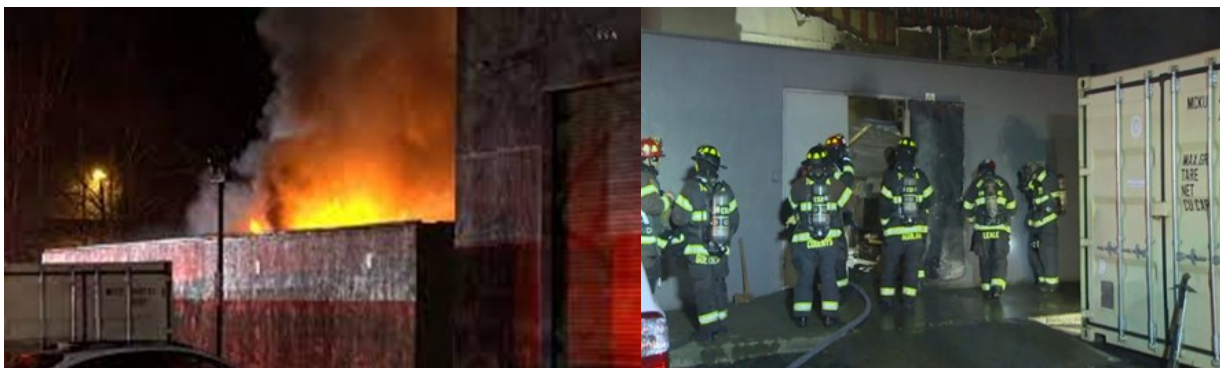
Fire fighters work forty-eight hours (two days) and then have the next four days off. Fire fighters work 2,584 hours per year, or 49.52 hours per week. This allows for 24/7 coverage and a minimum of 13 fire fighters working per day.

Staffing:

Fire Station 51	Engine 51	Captain, (2) Fire Fighters
Fire Station 52	BC352, Engine 52	Battalion Chief, Captain, (2) Fire Fighters
Fire Station 53	Engine 53	Captain, (2) Fire Fighters
Fire Station 54	Ladder 54	Captain, (2) Fire Fighters

DoubleTree Suites Fire, 16500 Southcenter Pkwy, (March 17, 2021)

An exterior fire broke out in an outside storage area at the rear of the Southcenter DoubleTree Suites by Hilton hotel. The Highrise hotel was being evacuated as fire fighters mounted an aggressive offensive attack that limited damage to the lower portion of the hotel. There were no reported injuries to guests or fire fighters.



Maple Crest Fire, 15100 65th Ave S. (August 17, 2021)



An early morning fire killed two adults and one child. The four-story, garden style apartments had 32 units. The back-side of the property is on a steep slope and water from fire operations caused significant landslide concerns to the area below. Three alarms from the Zone 3 area fought the fire for over five hours before a catastrophic roof collapse oc-

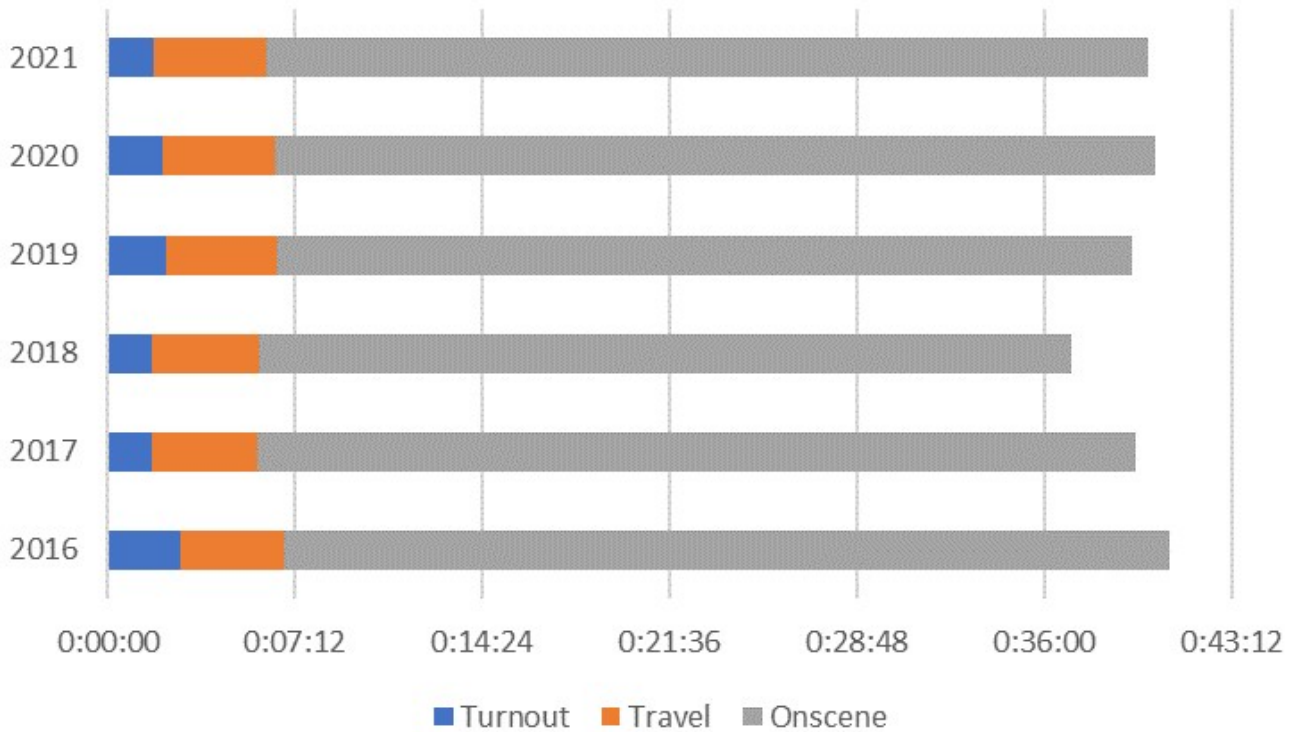
Window Washer Rescue,

A man was successfully rescued after his equipment malfunctioned as he was washing windows on a Highrise building in Renton. Using advanced rope rescue techniques, specialty crews from Renton RFA, Puget Sound RFA, King County District 2, South King Fire & Rescue, and Tukwila Fire worked seamlessly to secure and lower the patient safely to the ground.



This is a high-risk, low-frequency event that we train jointly with neighboring partners to staff a Zone 3 Technical Res-

Average Time Spent on a Call



Year	Turnout	Travel	Onscene
2016	0:02:46	0:04:00	0:34:05
2017	0:01:44	0:04:01	0:33:45
2018	0:01:42	0:04:05	0:31:17
2019	0:02:13	0:04:15	0:32:53
2020	0:02:07	0:04:18	0:33:50
2021	0:01:44	0:04:20	0:33:56

FIRE MARSHAL'S OFFICE

2021 Accomplishments

In 2021, the Fire Marshal's Office had some great accomplishments, experienced a lot of change, and had a record year of new construction inspections. Additionally, our office conducted Fire Investigations, performed Fire Plan Reviews, opened new Fire Code Enforcement Cases, fulfilled Public Record Requests, and began the prep work to move forward with digitizing our departmental records. Unfortunately, we were unable to perform any Occupancy Permit Inspections due to a lack of staff.

Thank you to all the businesses, residents, and service providers in the Tukwila area for your patience and for working with us during this past year of so many changes. We appreciate your continued support!

STAFFING UPDATES

Fire Marshal

Incoming Fire Marshal/Battalion Chief Andy Nevens replaced outgoing Fire Marshal/Battalion Chief Ben Hayman.

Plan Reviewer

Our long time and well-respected Project Coordinator Al Metzler passed away suddenly in November. We are still looking for his replacement and are utilizing consultants in the interim.

Investigator

Aaron Johnson, Deputy Fire Marshal / Captain assumed the role of lead investigator.

Fire Inspector

Patrick Smith, Deputy Fire Marshal / Captain assumed the role of lead fire inspector.

Administrative Technician

Nicole Hale went on Maternity Leave in the Summer of 2021. Tammy Sunderlin has been her replacement.

2021 STATISTICS

<i>Fire Investigation Case Files Created.....</i>	32
<i>Fire Plan Reviews.....</i>	793
<i>Fire Code Enforcement Cases.....</i>	162
<i>New Construction Inspections.....</i>	765
<i>Fire-Public Record Requests Fulfilled.....</i>	166

TUKWILA FIRE MARSHAL'S OFFICE

6300 Southcenter Blvd, Ste. 209

Tukwila, WA 98188

Main Office: 206.575.4407

FireMarshal@TukwilaWa.Gov

<http://www.tukwilawa.gov/departments/fire>

SUPPORT SERVICES

The Support Services Battalion Chief had another busy year as we were still in the middle of dealing with the COVID-19 pandemic. One of the main focuses of the department was making sure everyone was healthy and safe, so we were able to serve the community. Besides the testing site set up in the City, there were multiple days of vaccinations, with many days going out into the community mainly with our senior populations.

Other assignments and accomplishments in 2021:

Attended the Blue Card Instructor program to become a certified instructor.

Served on the Fire Station design team and assisted with the move into new Fire Station 52 as well as moving out of old Station 51 and old Station 52.

Continued to contribute to our department's social media including our Twitter, Facebook and, Instagram accounts.

Set up and ran a Battalion Chief Promotional Test.

Assisted with the new Washington Fire Careers testing process for new hires and interviewed over 140 individuals. This process allows for a much more affordable way for individuals to apply.

Was appointed to the Chair of the Zone 3 Hazmat Provider's Committee and serves as the liaison to both the Zone 3 Ops Chiefs and King County Ops Chiefs for Hazmat

Worked on the Zone 3 PIO program and participated in the rotation to ensure we have PIO coverage 24 hours per day.

Assisted as an assessor for 2 Captain's tests and 3 Battalion Chief's test for our neighboring departments.

STATION 51—Moved in 9/10/21



STATION 52—Moved in 2/12/21



HONOR GUARD

6Members
 est.in 2004

The Local Assistance State Team (LAST Team) and the City of Tukwila Honor Guard took part in honoring Washington State Fallen Firefighters line of duty deaths (LODD) in 2021. We had the honor and privilege to serve in this capacity. With regret, there were six LODD's across the state from Aberdeen to Ellensburg to Spokane.

Each of these losses were deeply felt by their families, our Fire Service family, and the communities they served. We also participated in three non-LODD Firefighter's memorials. City of Tukwila Honor guard personnel perform an essential role in representing the greater fire service within these events.

We recognize Captain Mark Morales, Captain Randy Edwards, and Fire Fighter Cathy Browning for their exceptional service in 2021. Mark quietly leads the team and is a state-wide resource to the fire service. Randy, trained at The Julliard School, is one of only two uniformed people in the State that plays Taps on the bugle for services. His rendition of Taps during these memorials is very moving and leaves few dry eyes in attendance. Cathy is an exceptional singer and performs an inspirational National Anthem.

In 2021, the Tukwila Honor Guard participated in the retirement ceremony of Captain Ken Beckman as well as a number of Recruit Graduation ceremonies. Typical duties at these events are posting & recovering of the Colors; Bell ringing ceremony, flag folding detail, family escort by honor guards, Fire Service memorial emblem presentation, honoring table presentation, singing of National Anthem, playing of Taps, and grave-side honors.



Captain Edwards
Fallen FF Memorial



FF Browning - Fallen FF Memorial



Captain Morales & FF Browning

Employee of the Year



Captain James Booth

Employee of the Quarter



1st - FF Czuleger



2nd – Captain Smith



3rd– FF Keller



4th – Captain Rodal

PROMOTIONS & Graduations

Promotions:

Andy Nevens to Battalion Chief

Jeff Nichols to Captain

Joel Curl to Captain

Graduations:

Sean MacMillan

Justin Averre

Adam Turner

RETIREMENTS



BC Marty Roberts



Captain Ken Beckman



Al Metzler

Fire Project Coordinator

9/26/60—9/30/21

Until we meet again...

