



2023 Mukilteo Fire Department Annual Response Analysis

“Every city and town shall evaluate its level of service and deployment delivery and response time objectives on an annual basis. The evaluations shall be based on data related to level of service, deployment, and the achievement of each response time objective in each geographic area within the jurisdiction of the city or town. (2) Beginning in 2007, every city and town shall issue an annual written report which shall be based on the annual evaluations required by subsection (1) of this section. (2a) The annual report shall define the geographic areas and circumstances in which the requirements of this standard are not being met. (2b) The annual report shall explain the predictable consequences of any deficiencies and address the steps that are necessary to achieve compliance.” RCW 35.103.040

The Mukilteo Fire Department mission is to plan for, prevent, and respond to fire, medical and disaster events. To achieve that mission, objectives have been set for turnout times and response (travel) times to emergency incidents. These are measured at the 90th percentile, meaning that 90% of the responses took less time than the time specified. The City includes all emergency response objectives that are less than three (3SD) standard deviations from the mean. This captures 99.7% of the responses.

The City has not defined objectives for certain types of responses, including special operations, aircraft rescue and firefighting, marine rescue and firefighting, and wildland firefighting. These responses require a response from a specialized regional resource or team not operated by the Mukilteo Fire Department. Their turnout and travel times are outside the control of the department.

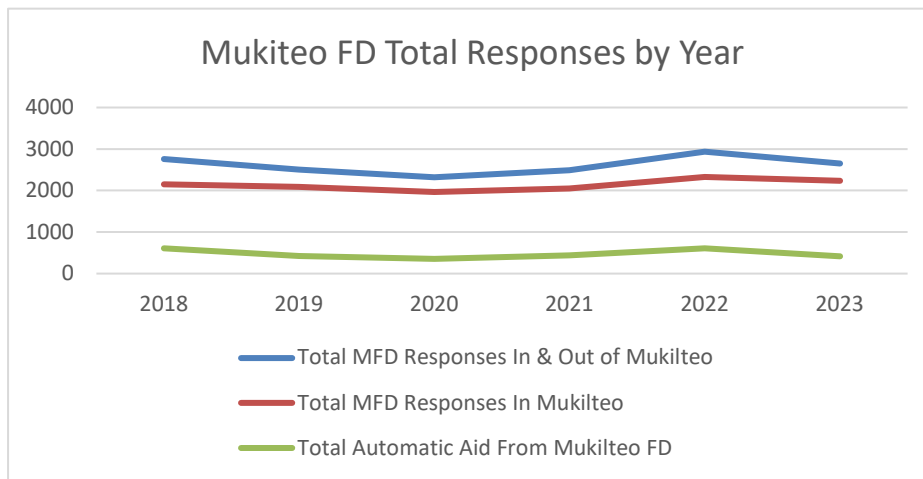
Incident Volume

The basic measurement of the department’s workload has been the incident volume, or the number of times units responded to calls for help. Those incidents are classified as either “emergent” or “urgent”, commonly referred to as non-emergency. The classification is determined by the 911 dispatcher using pre-set response determinants based on information from the caller. Emergent incidents require an immediate response *and* the use of lights and sirens. Urgent incidents require an immediate response, but do not include the use of lights and sirens.

The department divides emergent responses into two categories, the incident volume in Mukilteo and automatic aid incidents to neighboring jurisdictions. Emergent incidents in Mukilteo require measurement against the City objectives.

The incidents in Mukilteo can be further divided by geographic area. Station 24’s area includes the 1.95 square miles in the City limits north of 84th Street. Station 25’s area includes the 4.67 square miles in the City limits south of 84th Street.

Measure	2023	Change from 2022 to 2023
Total Calls Responded by MFD	2647	-10.0% -294 incidents
Total Calls in the City of Mukilteo	2283	1.0% 22 incidents
Total Incidents in Mukilteo Responded by MFD	2236	-4.0% -92 incidents
Total Automatic Aid Incidents Responded by MFD	411	-33.0% -202 incidents
Emergent Incidents	2435	-8.9% -238 incidents
Urgent Incidents	212	-16.5% -42 incidents
Emergent Incidents in Mukilteo	1942	-6.7% -140 incidents
Automatic Aid Emergent Incidents	493	-16.6% -98 incidents
Station 24 (north of 84 th Street)	583	-5.0% -31 incidents
Station 25 (south of 84 th Street)	1700	-0.8% -14 incidents



Overall incident volume for Mukilteo Fire Department is back to pre-pandemic levels with 2023 as the third busiest year to date. Interestingly, the decrease in call volume for Mukilteo Fire Department units between 2022 to 2023 was not due to a reduction of calls within the City as 2023 saw the all-time highest number of incidents within Mukilteo. The decrease in the overall number of responses for Mukilteo Fire units were twofold. The first was based on extended wait times at hospitals to transfer patient care, creating a greater number of instances where no Mukilteo Fire Department units were available to respond. Second, neighboring fire departments amended their deployment plans to reduce the need to rely on automatic aid for incidents within their jurisdictions.

Turnout Time

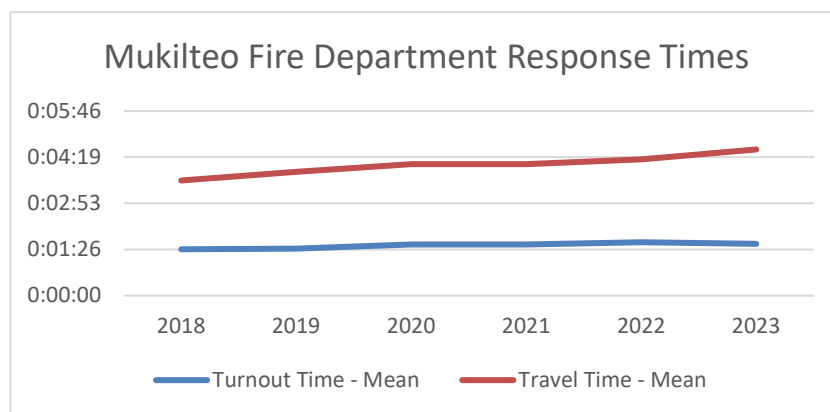
Turnout time is measured as the time from when personnel are alerted to an incident by the communications center until the apparatus starts responding (“wheels rolling”). The City objective for apparatus (fire engines and ambulances) turnout time is 2:00 minutes from the time of dispatch with 90% compliance. This measurement applies to Mukilteo Fire units responding to emergent calls in Mukilteo. The new station alerting system, directly connected to the dispatch system, has reduced some of the time delay. Contributing factors to the remaining extended time include fire station layout and cross-staffed units that require crews to move equipment to the appropriate apparatus for the call type. Both factors continue to delay turnout times.

Apparatus Turnout	2023	Change from 2022 to 2023
Mean (Average)	1:37	3.0% decrease
90 th Percentile	2:47	2.4% increase
2:00 Objective Met	68.1%	2.3% increase

Travel Time

Travel time is the time from when the apparatus starts responding to the incident (“wheels rolling”) until they arrive on the scene (“wheels stopped”). The City objective for travel time is 5:40 minutes with 90% compliance. The travel time compliance has essentially unchanged and neither meets their objective. Contributing factors include station locations, roadway layout, and traffic.

Apparatus Travel	2023	Change from 2022 to 2023
Mean (Average)	4:34	7.5% increase
90 th Percentile	7:41	8.0% increase
5:40 Objective Met	74.4%	4.5% decrease



Mukilteo Commitment Time

Measurement of the number of times an apparatus responds is used to gauge the department's workload. Measurement of the amount of time the apparatus is committed to an incident also indicates the department's readiness to respond to the next incident. It could also be considered as time out of service, on a call. Engines spend less time committed to calls unless there are a growing number of fire calls. Ambulances have significantly greater commitment time due to the time required to transport a patient to the hospital, transfer patient care to hospital staff, and return to the City. Increasing time in the future will be an indication to examine the number and type of units deployed.

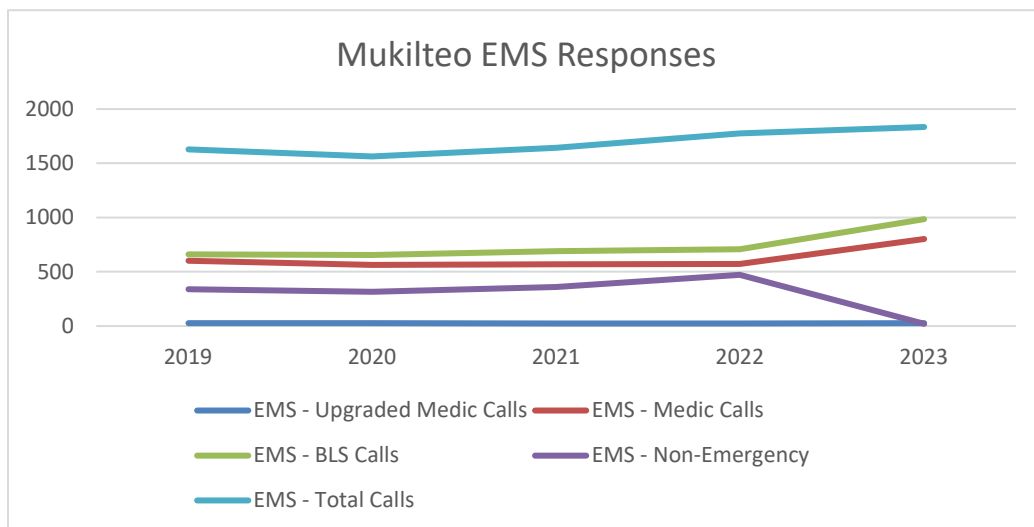
Apparatus Commitment	2023	Change from 2022 to 2023
Engine Commit (90 th Percentile)	41:06	7.2% increase
Ambulance Commit (90 th Percentile)	1:35:48	3.2% increase

EMS Response Types

Emergency Medical Service (EMS) responses account for a significant portion of the fire department's incidents. These calls are divided into four primary categories, immediately life-threatening incidents (Upgraded Medic), advanced life support emergency incidents (Medic), basic life support emergency incidents (BLS), and basic life support non-emergency incidents (Basic Non-Emergency).

The communications center utilizes protocols to identify the appropriate call type category. This determines the units and their response urgency. In 2023, the communications center changed EMS call type classification. This resulted in a drop in the number of Basic Non-Emergency incidents and an increase in the number of Medic and BLS calls.

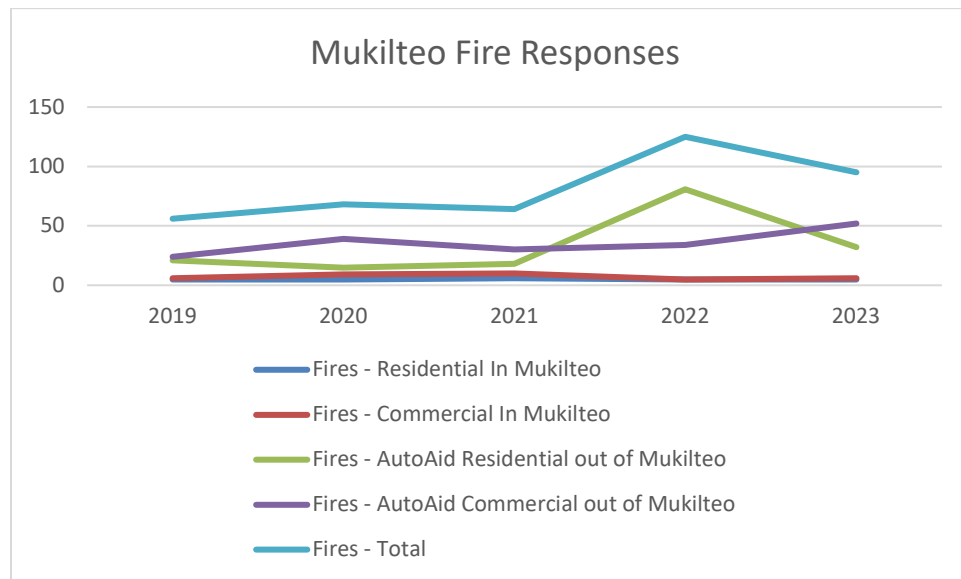
EMS Response Types	2023	Change from 2022 to 2023
Upgraded Medic	27	12.5% 3 incidents
Medic	804	40.3% 231 incidents
Basic	985	39.3% 278 incidents
Basic Non-Emergency	21	-95.6% -451 incidents
Total EMS	1837	3.4% 61 incidents



Residential and Commercial Fire Responses

Fire responses are divided into two categories, residential and commercial. Responses are separated this way because the higher complexity of commercial fires requires more resources. While fire responses in Mukilteo are small, Mukilteo Fire apparatus respond to a significant number of fires with our automatic aid partners. This is beneficial in two ways. First, the responses allow Mukilteo crews to hone their firefighting skills through actual responses. Second, by working closely with our automatic aid partners, operational safety is improved as the crews have experience working together. Due to the number of resources required, any residential or commercial fire in Mukilteo will always require a response from our automatic aid partners. In 2023, the percentage for residential fires decreased significantly based on neighboring jurisdictions amending their deployment plans, relying less on assistance from outside agencies.

Fire Response Types	2023	Change from 2022 to 2023
Mukilteo Residential Fires	5	0% 0 incidents
Mukilteo Commercial Fires	6	20.0% 1 incident
Automatic Aid Residential Fires	32	-60.5% -49 incidents
Automatic Aid Commercial Fires	52	52.9% 18 incidents



Automatic Aid

Mukilteo's primary automatic aid partners are South Snohomish County Fire and Rescue (SSCFR), Everett Fire Department (EFD), and Paine Field Fire Department (PFFD), although in large emergencies it is possible that other departments would also respond.

South County and Everett both provide resources to and receive resources from Mukilteo Fire Department. In 2022, Paine Field started providing automatic aid to neighboring jurisdictions for high acuity incidents such as structure fires, upgraded medic, and motor vehicle accidents with entrapment. Their specialized units continue to be available in the event of a downed aircraft in Mukilteo.

Automatic Aid-Everett	2023	Change from 2022 to 2023
MFD units to Everett Incidents	173	-5.5% -10 incidents
EFD units to Mukilteo Incidents	80	-20.8% -21 incidents

Automatic Aid-SSCFR	2023	Change from 2022 to 2023
MFD units to SSCFR Incidents	194	-48.5% -183 incidents
SSCFR units to Mukilteo Incidents	280	-45.9% -238 incidents

Automatic Aid-PFFD	2023	Change from 2022 to 2023
MFD units to PFFD Incidents	40	5.3% 2 incidents
PFFD units to Mukilteo Incidents	29	163.6% 18 incidents

The fire department monitors both the number of automatic aid incidents, and the number of units sent to each incident. Based on closest unit dispatch, South County and Everett often provide multiple apparatus for a single incident. Mukilteo Fire, in contrast, normally only has one apparatus available to respond to an automatic aid incident.

Automatic Aid Units	2023
Units from Mukilteo	435 units/407 incidents (1.07 units/incident)
Units into Mukilteo	520 units/389 incidents (1.34 units/incident)

Summary

The total number of incidents that Mukilteo Fire Department responded to in 2023 decreased compared to the historic high number of incidents in 2022. The only pre-pandemic year to exceed 2023 levels was 2018. However, the total number of incidents within the City of Mukilteo increased in 2023 to an all-time high. Mukilteo Fire Department staff will continue to monitor all response performance measures on a quarterly basis. As needed, policy recommendations will be brought to the City Council for consideration.