Kitsap County Fire District #18/ Poulsbo Fire Department

2024 Emergency Response Service Level Objectives Report

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INTRODUCTION

The Revised Code of Washington (RCW) 52.33 requires substantially career fire districts to adopt and annually report response time objectives for certain services. The purpose of this legislation is to measure the time it takes for the first emergency response unit to arrive at a fire before flashover or to an emergency medical incident to prevent brain death. This is critical to the survivability of the patient and the reduction of fire losses in the interest of public safety and welfare. It is also critical for emergency responders to arrive as fast as possible to reduce the impact of disabling injuries and disease processes from incidents like head injuries, strokes, heart attacks, or diabetic problems. The district, through a resolution of the board of fire commissioners, has adopted service level objective goals in Policy 1040. This report reviews the district's performance in achieving these goals during year 2023.

DEFINITIONS

"Advanced Life Support"- Functional provision of advanced airway management, including intubation, advanced cardiac monitoring, manual defibrillation, establishment and maintenance of intravenous access, and drug therapy.

"Aircraft Rescue and Firefighting" - The firefighting actions taken to rescue persons and to control or extinguish fire involving or adjacent to aircraft on the ground.

"Alarm Priority 1 Event"-Imminent Life Risk, Critical Incident. Time critical incidents where speed of arrival is likely a matter of life or death. Incidents like Cardiac Arrest, Respiratory Arrest, Structure Fires, fires with exposure and Rescue Calls.

"Alarm Priority 2 Event"-Serious Life or Significant Property Loss Risk, Urgent Incident. Calls which demand immediate service to mitigate a serious, but not imminent, life risk or significant property risk. Incidents that could become a Priority 1 if not dealt with promptly. Fire/EMS examples of Priority 2 calls include ALS responses, etc.

"Area Classifications"- Geographic areas defined by their risk classification according to population density and other as-built characteristics.

"Area Classification-Urban Growth Area (UGA)/Suburban"- Refers to a population density of 1,000 to 2,000 people per square mile. In growth management areas, this designation includes areas classified as incorporated and urban growth areas.

"Area Classification-Non-Urban Growth Area (Non-UGA)/Rural"- Refers to a population density of less than 1,000 people per square mile. In growth management areas, this designation includes unincorporated areas outside of urban growth areas.

"Brain Death"- Defined by the American Heart Association as the irreversible death of brain cells that begins four to six minutes after cardiac arrest.

"Cross-Staffing"- Two personnel assigned to a station who are responsible for staffing multiple apparatus, utilizing the appropriate apparatus for the incident type.

“Dispatch Time”- The time from the receipt of the 911 call to units being notified of the emergency incident. Includes the time to answer the 911 call and the time to process and dispatch the incident. (Ref NFPA 1221)

“Effective Response Force”- The arrival of two units at a fire for implementation of 2 in/1 out rescue criteria or to sustain essential ALS treatment on EMS incidents.

“Emergency Service Zone (ESZ)” -–The smallest defined geographic area within the district classified into a density and risk category, to organize and analyze response and risk information, and to assign specific resource response risks to given emergency types.

"Fire Department”- A fire protection district responsible for firefighting actions, emergency medical services, and other special operations in a specified geographic area.

“Fire Suppression"- The activities involved in controlling and extinguishing fires.

“First Responder"- The provision of initial assessment and basic first-aid intervention, including cardiac pulmonary resuscitation and automatic external defibrillator capability.

“Flash-Over"- Defined by the National Institute of Standards and Technology as when all combustibles in a room burst into flame and the fire spreads rapidly.

“**Fractal”-** A measure that utilizes a percentage of total alarms to define the service level measurements of turnout and travel times. Time based data is listed from the least amount of time utilized to the longest length of time. A 90% fractal would be the time data for 90% or less of the incidents.

“Full First Alarm Assignment”- The total number and type of response units and personnel assigned to mitigate an emergency. The number and types of units is determined by the probable size and complexity of occurrence and a task analysis of the needed resources to mitigate the emergency.

“Geographic Designation” Station Response Area- Defines the closest district station to all geographic areas within the district.

"Marine Rescue and Firefighting"- The firefighting actions taken to prevent, control, or extinguish fire involved in or adjacent to a marine vessel and the rescue actions for occupants using normal and emergency routes for egress.

“Percentage of Use”- Defines the percent of overall time an individual unit committed to emergency response delivery. If units are cross-staffed, both response units are calculated as one for station totals. The formula for deriving this benchmark is: Total time for unit out of service on alarms in minutes/Total time in minutes for one year.

“Response Time (Travel Time)”- The time immediately following turnout time that begins when units are en route to an emergency incident and ends when units arrive on scene.

“**RMS”** - Records Management System; currently ESO Solutions

"Special Operations"- Those emergency incidents to which the fire department responds that require specific and advanced training and specialized tools and equipment. Includes Technical Rescue, Marine Response, and Hazardous Materials Incidents.

“Total Response Time”- From the time beginning when a unit or units receive notification of the emergency to the time when unit or units arrive on scene. Turnout time plus response time.

“Travel Time (Response Time)”- The time immediately following turnout time that begins when units are en route to an emergency incident and ends when units arrive on scene.

"Turnout Time"- The time beginning when units receive notification of the emergency to the beginning point of response time.

“Unit Staffing-Staffed”-A response unit that is staffed during a specified period of time by at least two responders, with the exception of Battalion 71, which is staffed with one emergency responder.

“Unit Staffing-Cross Staffed”-Multiple response units that are assigned to one station and staffed by one team. When an alarm is dispatched, the team responds with the most appropriate unit leaving the other response unit unstaffed at the station.

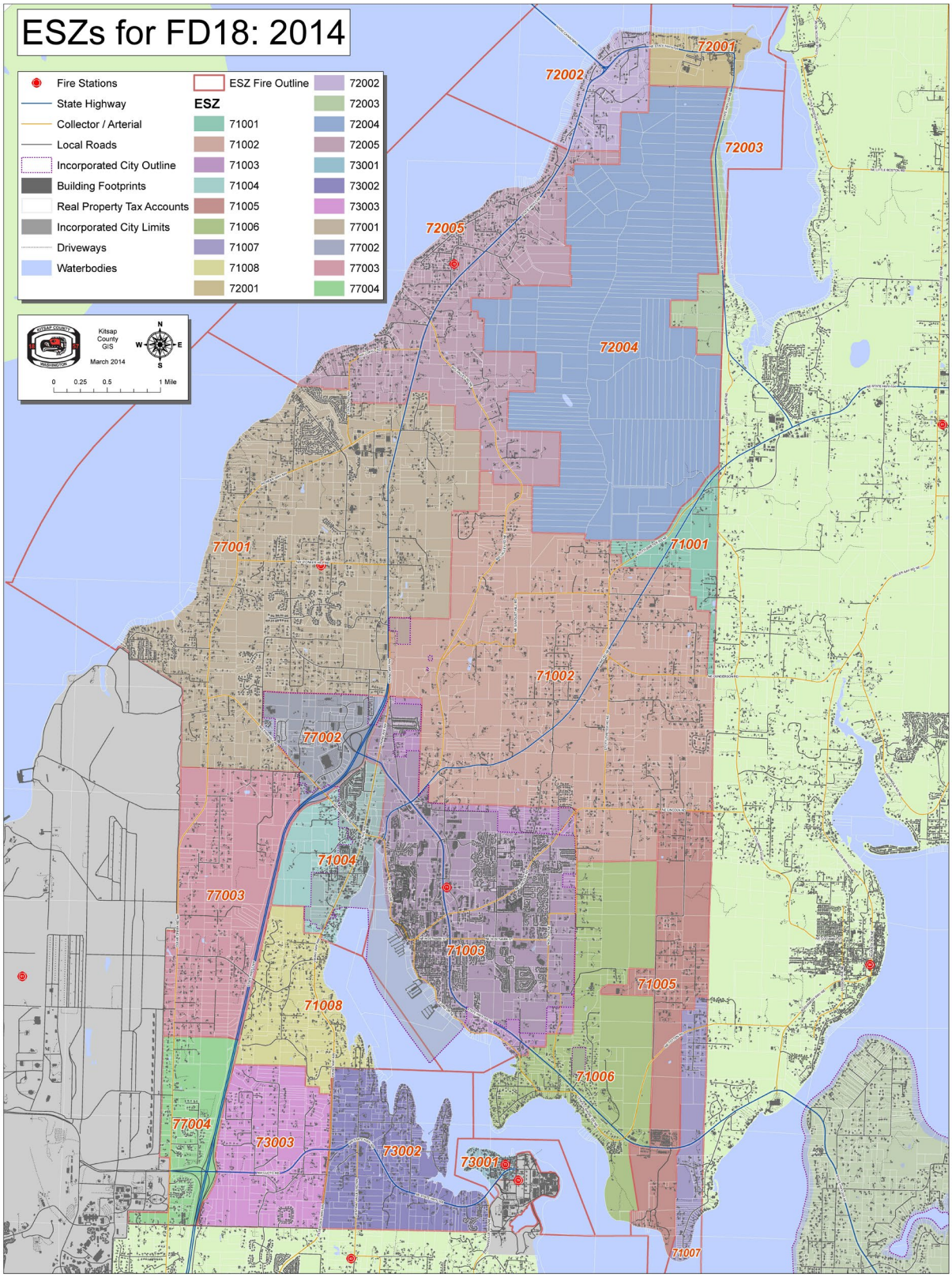
“Unit Staffing-Flex Staffing”- Staffing a station when staffing resources are available and minimum staffed positions are filled. When staffing resources are not available, the station may be staffed by volunteers responding from home or the station.

DISTRICT DESCRIPTION

Kitsap County Fire District #18/Poulsbo Fire Department covers approximately 54 square miles located in the northwestern portion of Kitsap County on the Kitsap Peninsula. Within the jurisdictional boundaries and response areas, the district provides fire and emergency medical services to approximately 26,400 citizens. The district is bordered by Port Gamble Bay on a portion of the eastern border, the Hood Canal on the north and west boundaries; and, the southwest is bordered by Liberty Bay and Port Orchard Bay. The district includes approximately 18 miles of tidal waterfront and the City of Poulsbo.

LEGAL EXISTENCE OF THE FIRE DISTRICT

The fire district operates under RCW 52 which specifies governance, taxation authority, and other laws of fire district operations. Fire district business is governed by a board of commissioners that delegates the management and operations of the district to an appointed fire chief (Policy 1020). The fire chief receives policy direction from the Board of Fire Commissioners, implementing this direction through a chain of command and the positions authorized by the board of commissioners. Fire district headquarters and administrative offices are located at 911 NE Liberty Road, Poulsbo WA.


ESZs for FD18: 2014
Fire Stations
State Highway
Collector / Arterial
Local Roads
Incorporated City Outline
Building Footprints
Real Property Tax Accounts
Incorporated City Limits
Driveways
Waterbodies
ESZ Fire Outline
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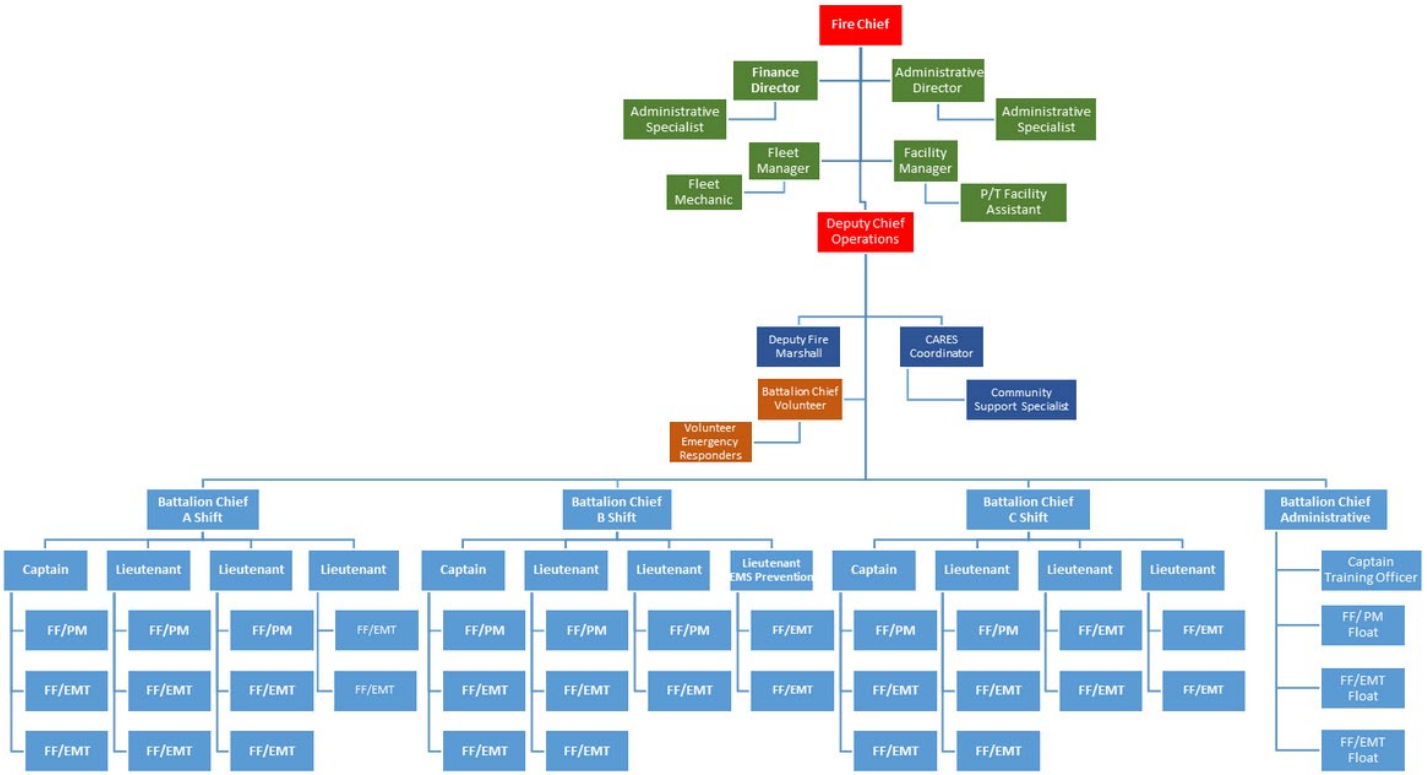
The 2024 Organizational Structure



At the conclusion of 2024, Kitsap County Fire District 18/Poulsbo Fire Department employed fifty-eight (58) career personnel as well as twelve (12) volunteers.

Number of Personnel:

Command Staff	2
Emergency Response Personnel	48
Volunteers	12
Administrative/Support	6
Community Risk Reduction	2

Total Personnel: 58 Career and 12 Volunteer

SERVICES PROVIDED BY THE FIRE DISTRICT:

All Hazard Emergency Response Capabilities		
Capability	Fire Department Capability	Inter-Local Agreement Capability
Emergency Medical Services	Advanced Life Support	Same
Wildland Firefighting	Initial Response	Resource Mobilization Plan
Marine Firefighting*	Defensive Operations	Offensive – USCG
Hazardous Materials Response**	Operations Level	Technician Level - NRNW
Vehicle Extrication	Technician Level	Same
Rope Rescue	Operations Level	Technician Level – Region 2 TRT
Confined Space Rescue	Operations Level	Technician Level – Region 2 TRT
Trench Rescue	Awareness Level	Technician Level – Region 2 TRT
Surface Water Rescue*	Technician Level	Technician Level - USCG
Structural Collapse	Operations Level	Technician Level – Region 2 TRT

**USCG has statutory responsibility*
*** WSP has statutory responsibility*

Community Risk Reduction Services
Fire and Life Safety Inspections
Plans Review
Non-emergency Hazard Mitigation
Fire Cause Determination (KCFMO)
EMS Prevention / FDCares
Public CPR/AED Training
Public Relations/Social Media
Smoke Detector Program
Car Seat Fitting
Safety Device Programs

As authorized by the fire chief or designee, to respond and utilize equipment and personnel beyond the boundaries of the district when no mutual or automatic aid inter-local agreement has been approved. The fire chief is authorized to implement deployment and response strategies to achieve these goals.

TIME: THE CRITICAL FACTOR

For emergency response to be effective, interventions must occur within identified time frames in order to create the most opportunity to save lives and property. Generally speaking, the faster the intervention the more positive the outcome. The arrival of first responders with automatic external defibrillator capability before the onset of brain death or the arrival of adequate fire suppression resources before flashover are time critical events during the mitigation of an emergency, which is in the best interest of the public (RCW 52.33.010). The arrival time of properly trained and equipped personnel is the single most significant factor in reducing the impact of serious emergencies.

***Medical Emergencies / Cardiac arrest*:** According to the American Heart Association, irreversible brain death begins within four to six minutes after cardiac arrest.

***Fire Suppression / Flashover*:** The national average for a fire to generate enough heat to ignite the contents of a room and cause flashover is approximately eight minutes. When a flashover occurs, the fire rapidly spreads into adjoining rooms which can cause occupant injury and/or deaths to increase dramatically. In addition, the property dollar loss may increase due to the increased fire spread.

CASCADE OF EVENTS

To determine response effectiveness, the overall "Response Time" is divided into incremental categories to identify areas where performance can be enhanced. Through critical analysis evaluating the Cascade of Events, an Action Plan can be implemented to improve overall response times.

The following time-stamps are used to analyze the efficiency and effectiveness of the 911 dispatch center (Kitsap 911) and Kitsap County Fire District #18/Poulsbo's emergency response:

Time Stamp-Dispatch Time
- The discovery of the emergency
- First ring to the 9-1-1 dispatch center
- Phone picked up by the dispatch center
- Dispatch center enters the event into the system
- Information is dispatched to a fire station via radio and/or printer

Time Stamp-Turnout Time
- Apparatus initiates response, leaving their current location to the emergency

Time Stamp-Response Time
- First-due unit arrives on the scene

Time Stamp-Effective Response Force
- Two units arrive on the scene

Time Stamp-Full First Alarm Assignment Response Time
- Subsequent units arrive on the scene

Time Stamp-Under Control
- Emergency is declared under control and situation returned to a state of normalcy

Time Stamp-Available
- Units leave scene and become available for next alarm

SERVICE LEVEL RESPONSE REPORTING

We are submitting this report to comply with RCW 52.33. This report has been updated to reflect the current status of the fire district based on data available through our records management system. In order to measure the ability to arrive and begin mitigation operations before the critical events of brain death, flash-

over, or the golden hour of trauma, the district has established time objectives as time related **goals** for the following. The fire chief is authorized to implement deployment and response strategies to achieve these goals.

2024 Incident Data

- **4788 Total Incidents (Not Including Automatic Aid)**
  1,340 Fire Calls 28%
  3,448 EMS Calls 72%

Automatic Aid Given: 365 Calls

Automatic Aid Received: 464 Calls

Dispatch Time		
	95% Fractal Time	Average
9-1-1 Call Answered Goal	<15 Seconds	3 Seconds
Processing Time Goal	<64 Seconds	<60 Seconds
2024 Actual	55 Seconds	40 Seconds

Turnout Time		
Incident Type	90% Fractal Time	Average
Priority 1 and 2 Events Goal	120 Seconds	<90 Seconds
2024 Actual	118 Seconds	60 Seconds
Fire Events Goal	120 Seconds	<90 Seconds
2024 Actual	121 Seconds	61 Seconds
EMS Events Goal	90 Seconds	<60 Seconds
2024 Actual	114 Seconds	60 Seconds

Total Response Time (TRT) =Turnout Time + Response Time (Travel Time)

Total Response Time-First Arriving Unit		
ESZ Type	90% Fractal Time	Average
UGA (Suburban) Goal	<8 Minutes	<6 Minutes
2024 Actual	7:34 Minutes	4:47 Minutes
Non-UGA (Rural) Goal	12 Minutes	<10 Minutes
2024 Actual	12:35 Minutes	8:13 Minutes

Total Response Time-Effective Response Force Arrival		
ESZ Type	90% Fractal Time	Average
UGA (Suburban) Goal	<8 Minutes	<6 Minutes
2024 Actual	10:18 Minutes	6:33 Minutes
Non-UGA (Rural) Goal	<12 Minutes	<10 Minutes
2024 Actual	14:40 Minutes	10:24 Minutes

***Time differential between first arriving unit and effective response force arrival**

Total Response Time-First ALS Unit		
ESZ Type	90% Fractal Time	Average
UGA (Suburban) Goal	<8 Minutes	<6 Minutes
2024 Actual	8:50 Minutes	5:30 Minutes
Non-UGA (Rural) Goal	<12 Minutes	<10 Minutes
2024 Actual	13:10 Minutes	9:20 Minutes

Total Response Time-First Arriving Engine at a Fire Suppression Incident		
ESZ Type	90% Fractal Time	Average
UGA (Suburban) Goal	<8 Minutes	<6 Minutes
2024 Actual	10:27 Minutes	7:08 Minutes
Non-UGA (Rural) Goal	<12 Minutes	<10 Minutes
2024 Actual	14:48 Minutes	9:25 Minutes

Total Response Time-Full Alarm for Structure Fire Residential		
ESZ Type	90% Fractal Time	Average
UGA (Suburban) Goal	<16 Minutes	<12 Minutes
2024 Actual	Insufficient Data	12:04 Minutes
Non-UGA (Rural) Goal	<20 Minutes	<16 Minutes
2024 Actual	Insufficient Data	125:19 Minutes

Total Response Time-All District Special Operations First Unit Arrival		
Incident Type	90% Fractal Time	Average
Water Rescue-Marine Unit Goal	<30 Minutes	<6 Minutes
2024 Actual	9:20 Minutes	6:13 Minutes
Motor Vehicle Collision ALS/Rescue-Extrication Goal	<12 Minutes	<10 Minutes
2024 Actual	10:02 Minutes	6:22 Minutes
Technical Rescue Goal	<20 Minutes	<16 Minutes
2024 Actual	Insufficient Data	Insufficient Data

Note: Only Priority One (1) and Two (2) events are considered for turnout and response times. Fractal analysis will not be used when there are less than twenty (20) incidents to be considered. Special Operations incidents with less than ten (10) incidents per year will not be included.

PREDICTABLE CONSEQUENCES

The arrival of first responders with automatic external defibrillator capability before the onset of brain death and the arrival of adequate fire suppression resources before flashover are both time critical events during the mitigation of an emergency and are in the best interest of the public (RCW 52.33.010).

Response analysis and literature suggest that the arrival time of properly trained and equipped personnel is the single most significant factor in reducing the impact of serious emergencies.

From an analysis of the district's annual reporting, the service levels and initial unit response times are beyond the six minutes for brain death and the eight minutes for flashover when utilizing the 90% fractal method. A conclusion may be drawn that a percentage of these alarms are not meeting national response recommendations. The data also reflects an extended time for a full first-alarm assignment to arrive at structure fires within recommended guidelines.

For those events with extended response times, there is an increased risk of life and property loss. Both fire and emergency medical response time deficiencies in the wrong circumstances could lead to the following results:

- *An increased risk to life safety for both the citizens and firefighters.*
- *Inability to intervene with Basic Life Support (BLS) and/or Advanced Life Support (ALS) measures prior to brain death.*
- *Inability to safely perform rescue and interior fire attack/suppression at industrial, commercial, and residential structure fires prior to flashover.*
- *Potentially larger loss for industrial, commercial, and residential structure fires.*

The district continuously reviews methods to improve factors that reduce all stages of the Cascade of Events, such as:

- *Analyzing trends for high call-volume areas.*
- *Reduced times for call answering and information gathering at the 9-1-1 dispatch center through cooperation with 9-1-1 officials at Kitsap 911.*
- *Automatic mutual-aid agreements with local jurisdictions.*
- *Reduced turnout times for firefighters.*
- *Analyzing trends for locations of emergencies.*
- *Review of community growth patterns for future station locations.*

ACTION PLAN FOR 2025

- Build process for Viking Ave fire station- **Completion October 31, 2025**
- Increase Normal Staffing to 11 (eleven)- **Completed April 1, 2025**
- Evaluate current and future finance department needs- **Ongoing**
- Hire a fleet manager- **In Process**
- Hire a second CARES social worker- **In Process**
- Hire EMT Firefighter Paramedic- **In Process**

- Hire Seasonal Facility Worker- **Completed**
- Evaluate 4 Platoon Work Schedule- **In Progress**
- Conduct Supplemental Lieutenant Testing- **September 22-26, 2025**
- Increase the capability of specialty team assignments- **In Process**
- Take delivery of new command vehicle for Battalion 71- **Completed June 23. 2025**
- Take delivery of a ladder truck purchased in 2023- **In Process**
- Improve south entrance at Station 71 for apparatus- **Completion June 30, 2025**
- Phase 1 Station 71 Restroom Improvement Capital Improvement Plan- **In Process**
- Phase 2 Station 72 Seismic Retrofit/Remodel Capital Improvement Plan- **In Process**
- Phase 3 Fleet Facility Expansion Capital Improvement Plan- **In Process**

GOALS FOR 2026 AND BEYOND

- Update Strategic Plan (2026)
- Renew six-year EMS levy (2026)
- Construction/remodel of Station 72 (2027-28)

CLOSING STATEMENT

This report is intended to keep the board of fire commissioners and our citizens informed of the district's ability to meet its identified service level delivery objectives as well as to identify limitations for fire and EMS responses.

This annual report will be used to facilitate improvements within the confines of the revenue provided to us by the public. We are committed to providing accurate and relevant data to keep both the board of commissioners and the citizens we serve informed.

Respectfully submitted,

James Gillard, Fire Chief
Kitsap County Fire District 18/Poulsbo Fire Department