

Poulsbo Fire Department 2008 Annual Report of Service Level Objectives

**Poulsbo Fire Department / Kitsap Fire District #18
2008 ANNUAL REPORT of Service Level Objectives**

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POLICY STATEMENTS

Per the Revised Code of Washington (RCW) 52.33.010: fire departments are to set standards for addressing the reporting and accountability of substantially career fire departments, and to specify performance measures applicable to response time objectives for certain major services. The impetus of this was to measure the time it takes for the first unit or resources to arrive at the fire before flashover or the 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.

EXISTENCE OF THE FIRE DEPARTMENT

The Poulsbo Fire Department was officially formed in 1936 to protect the City of Poulsbo, responding outside of the City as available when requested. In 1999 the citizens of Poulsbo voted to annex into Kitsap County Fire District #18 under the tenants of Title 52 of the RCW, forming what is known today as the Poulsbo Fire Department / Kitsap County Fire District #18. For ease of reading purposes, Poulsbo Fire Department shall be used for the remainder of this report.

SERVICES PROVIDED BY POULSBO FIRE

- Fire Protection & Suppression Services
- Emergency Medical treatment and transport, Basic Life Support (BLS)
- Emergency Medical treatment and transport, Advanced Life Support (ALS)
- Hazardous Materials / First Response
- Fire Suppression:
 - Residential Fires
 - Commercial Fires
 - Brush Fires
 - Vehicle Fires
 - Mutual-Aid
 - Other fires not specifically identified herein
- Marine Fire Suppression / Rescue Responses
- Public Education
- Fire Prevention
- Pre-Fire Planning
 - On-Site Engine Company Pre-Planning
 - Pre-Plan drawings
- Technical Rescue
- Assorted non-emergency / customer services
- Fire Marshal Services
 - Plans Checks / Review & Approval
 - Fire Cause Determinations
 - Fire Prevention Inspections

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TOTAL INCIDENTS RESPONDED TO IN 2008 INCLUDE:

- Emergency Medical Incidents.....2,428
- Structure Fire Responses.....10
- Automotive Fires.....14
- Hazardous Conditions.....3
- Other: *Service, fire alarms, false alarms, other type fires*...1,229
 - **Total Responses**..... **3,684**

BASIC ORGANIZATION / ORGANIZATION CHART (See attachment)

- Total Employees January 01, 2008: 48
- Total Career:
 - Firefighter/EMT/Paramedics 33 *This includes Captains and Lieutenants*
 - Chief Officers 7
- Fire Prevention 1
- Public Education 1
- Administrative Staff 4
- Mechanic 2
- Other (*List each*) n/a
- Volunteer 24
- Part-Time n/a

GEOGRAPHIC AREA

The Poulsbo Fire Department covers approximately 55 square miles located in the Northwestern portion of Kitsap County Washington on the Kitsap Peninsula. Within the jurisdictional boundaries and response areas, Poulsbo Fire Department provides fire and emergency medical services to approximately 24,000 citizens as of January 2008. Poulsbo Fire is bordered by Port Gamble Bay on a portion of the Eastern border, the Hood Canal on the North and West boundaries and to the Southwestern Boarder are Liberty Bay and Port Orchard Bay. Poulsbo Fire Department is the “first-due” emergency responder to approximately 18 miles of tidal waterfront.

CASCADE OF EVENTS (See attachment)

To determine response effectiveness: the overall “Response Time” is divided into incremental categories to identify areas where performance can be enhanced. Critically evaluating the Cascade of Events the chief officers develop a Plan of Action (*Page 8*) to improve overall response times.

Understanding of the “Cascade of Events” to determine the overall “Response Time”

The following time-stamps are used to analyze the efficiency and effectiveness of the 9-1-1 dispatch center (CenCom) and Poulsbo Fire Department emergency response units:

- **The discovery of the actual 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 dispatched to a fire station via radio and/or printer**
- **Apparatus initiates response, leaving their current location to the emergency**
- **First-due unit arrives on the scene**

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- Subsequent units arrive on the scene
- Chief Officer arrives on the scene of a multi-company operation
- Emergency is declared under control and returned to a state of normalcy
- Units leave scene and become available for next alarm

RESPONSE STANDARDS

This report reflects the response standards contained in the Poulsbo Fire Department Standard of Cover for priority events within the response jurisdiction of Poulsbo Fire Department.

1) TIME STANDARDS

Turnout Time – Department Standard:

Poulsbo Fire Department has adopted a standard turnout time as follows for:

- Emergency Medical Services (EMS): One minute zero seconds (1:00) or less 90% of the time.
- Fire Suppression: One minute thirty seconds (1:30) or less 90% of the time.
- Special Operations: Two minutes thirty seconds (2:30) or less 90% of the time.
- Wildland Fire calls within jurisdiction: One minute thirty seconds (1:30) or less 90% of the time.

Turnout Time – Department Actual time:

The actual turnout time for the combined Advanced Life Support (ALS) and Basic Life Support (BLS) incidents within our response jurisdiction were as follows:

- Suburban: Three minutes zero seconds (2:51) 90% of the time – **Failed**
- Rural: Three minutes twenty three seconds (3:14) 90% of the time – **Failed**

2) Response time of 1st Arriving Engine Company at Fire Suppression Incident

Response Time – Department Standard:

Poulsbo Fire Department has adopted a response time standard for the first-due engine to arrive when responding to a fire suppression incident of:

- Suburban: Eight minutes twenty-five seconds (8:25) or less 90% of the time.
- Rural: Eleven minutes zero seconds (11:00) or less 90% of the time.

Response Time – Department Actual time:

The Poulsbo Fire Department actual response time for the first arriving fire engine to fire suppression incidents as follows for:

- Suburban: Eight minutes one second (8:01) 90% of the time – **Met**
- Rural: Ten minutes five seconds (10:05) 90% of the time – **Met**

3) Deployment of the Effective Response Force (ERF) for a Full First-Alarm Assignment at a Fire Suppression Incident.

Response Time – Department Standard to achieve an Effective Response Force (ERF):

Poulsbo Fire Department has adopted an effective response force (ERF) of fourteen suppression personnel standard as follows for:

- Suburban: Fifteen minutes zero seconds (15:00) 90% of the time.
- Rural: Eighteen minutes zero seconds (18:00) 90% of the time.

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Response Time – Actual Department to achieve an Effective Response Force (ERF):

The Fire District's actual effective response force (ERF) to a fire suppression calls was as follows:

- Suburban: Twenty nine minutes and thirty-two seconds (29:32) 90% of the time – **Failed**
- Rural: Forty-two minutes, thirty-seven seconds (42:37) 90% of the time – **Failed**

4) Arrival of First Responder or higher level capability at an Emergency Medical Incident.

Response Time – Department Standard:

Poulsbo Fire Department has adopted a response time standard for the arrival of a certified Emergency Medical Technician (EMT) unit staffed with at least two persons when responding to any medical emergency as follows:

- Suburban: Seven minutes fifty-five seconds (7:55) or less 90% of the time.
- Rural: Nine minutes forty-five seconds (9:45) or less 90% of the time.

Response Time – Department Actual time:

Poulsbo Fire Department has adopted a response time standard for the arrival of a certified Emergency Medical Technician (EMT) unit staffed with at least two persons when responding to any medical emergency was as follows:

- Suburban: Eight minutes thirty-eight seconds (8:38) or less 90% of the time – **Met**
- Rural: Eleven minutes fifty-four seconds (11:54) or less 90% of the time – **Failed**

5) Arrival of Advanced Life Support (ALS) unit at an Emergency Medical Incident.

Response Time – Department Standard:

Poulsbo Fire Department has adopted a response time standard for the arrival of a certified Advanced Life Support Paramedic unit staffed with at least two persons when responding to any medical emergency as follows:

- Suburban: Seven minutes fifty-five seconds (7:55) or less 90% of the time.
- Rural: Nine minutes forty-five seconds (9:45) or less 90% of the time.

Response Time – Department Actual time:

Poulsbo Fire Department has an actual response time for the arrival of a certified (ALS) Advanced Life Support Paramedic unit staffed with at least two persons when responding to any medical emergency was as follows:

- Suburban: Seven minutes forty-two seconds (7:42) or less 90% of the time – **Met**
- Rural: Eleven minutes Forty-three seconds (11:43) or less 90% of the time – **Failed**

6) Arrival of Hazardous Materials trained and equipped technicians.

Response Time Standard:

Poulsbo Fire Department Firefighters are trained to the Incident Command and Operations Level for response to hazardous materials incidents. The response time standard for operational level Firefighters is the same as fire suppression calls. The response time standard for a Technician Level Hazardous Materials Team is sixty (60) minutes.

- Suburban: Sixty Minutes and zero seconds (60:00) or less 90% of the time.
- Rural: Sixty Minutes and zero seconds (60:00) or less 90% of the time.

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Response Time – Department Actual time:

- Suburban: Twenty-Three minutes Six seconds (23:06) or less 90% of the time – **Met**
- Rural: There were no responses to measure in this category – **N/A**

2008 Response Data

Suburban Incident	Turnout Adopted	Turnout Actual	Response Adopted	Response Actual	Actual 90% E.R.F. Performance
Fire	1:30	5:20	8:25	12:05	29:32
ALS	1:00	2:50	8:25	9:10	12:09
BLS	1:00	2:55	7:55	9:07	N/A
Wildland	1:30	1:48	8:25	1:48	N/A
Special Ops	2:30	2:46	9:25	10:07	N/A
Marine	4:00	N/A	10:55	N/A	N/A

Rural Incident	Turnout Adopted	Turnout Actual	Response Adopted	Response Actual	Actual 90% E.R.F. Performance
Fire	1:30	10:56	9:15	15:12	42:37
ALS	1:00	3:22	8:10	11:43	16:00
BLS	1:00	3:04	8:10	14:16	N/A
Wildland	1:30	3:20	9:15	13:36	N/A
Special Ops	2:30	0:02	10:15	N/A	N/A
Marine	4:00	3:11	12:00	19:44	N/A

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 is in the best interest of the public (RCW 52.33.010).

Medical Emergencies / Cardiac arrest:

- According to the American Heart Association: irreversible brain death begins within 4 to 6 minutes after cardiac arrest.

Fire Suppression / Flashover:

- The average time for fire to generate enough heat to ignite the contents of the room and cause flashover is approximately eight minutes. When a flashover occurs, it can rapidly spread into adjoining rooms causing occupant injury and deaths to increase dramatically. In addition; the property dollar-losses increase due to the increased fire spread.

Statistics prove that arrival time of properly trained and equipped personnel is the single most significant factor in reducing serious emergencies. For cardiac arrest and similar medical emergencies: brain death begins after just six minutes. For fire emergencies: eight minutes is the time critical point when flashover is close to, or has occurred.

Due to several factors the Poulsbo Fire Department overall response times are normally beyond the six minutes for brain death and the eight minutes for flashover when examined with the fractal analysis method.

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These times would indicate with the department's inability to consistently meet the standards to achieve an Effective Response Force within the specified time. This inability could potentially lead to larger loss residential and commercial structure fires. Furthermore; these response times speak to the department's inability to consistently arrive within six minutes of cardiac arrest. Both fire and emergency medical response time deficiencies lead to the following predictable results:

- *Potentially larger loss industrial, commercial and residential structure fires.*
- *Inability to safely perform interior fire attack / suppression at industrial, commercial and residential structure fires prior to the occurrence of flashover.*
- *Inability to perform interior rescues at industrial, commercial and residential structure fires before flashover occurs.*
- *Inability to intervene with Advanced Life Support (ALS) measures prior to brain death.*
- *Inability to intervene with Basic Life Support (BLS) measures prior to brain death.*

Poulsbo Fire officials are constantly reviewing methods to improve factors that can be changed to reduce all stages of the Cascade of Events such as:

- *Analyzing trends for high call volume areas.*
- *Reduced call answering and information taking times at the 9-1-1 dispatch center through cooperation with 9-1-1 officials at CenCom.*
- *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*

Items such as road conditions, weather and traffic are not within the ability of Poulsbo Fire to directly impact so we can reduce response or arrival times.

OPERATIONAL PLAN OF ACTION

1. Continued work with 9-1-1 (CenCom) officials to reduce call answering and information gathering times.
2. Emphasis on safely reducing turnout times of personnel
 - a. *Develop training to teach personnel to move efficiently from work stations to apparatus.*
3. Training in-station where a more centralized response will reduce arrival times.
 - a. *Assuring crews are completing daily fire & EMS training closer to central locations.*
4. Working with State and local officials regarding roads and access issues.
 - a. *Meeting with State and local officials to bring travel conditions to the forefront of their attention.*
5. Reduce ambulance turnaround times when at local and out of district hospitals.
 - a. *Have crews complete reports electronically while transporting patient to hospital*
6. Reduce on-scene times to decrease Mutual-Aid requests.
 - a. *Assure crews clear the scene, announce availability to CenCom earlier to increase reliability and decrease Mutual-Aid requests / responses.*
7. Identify technical and training issues that potentially alter data accuracy with the 9-1-1 dispatch center
 - a. *Work with user groups to reduce call processing times or technical problems*
 - b. *Upgrades in MCT units to assure reliable wireless connectivity, improving response data.*

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8. Encouraging all members within our organization to identify and bring ideas forward that could improve delivery of services to the community.
 - a. *Open door policy of listening and evaluating ideas to increase performance.*

9. Improved daily reporting by personnel to assure data gathered is properly recorded so nearly 100% of all calls can be analyzed.
 - a. *Continued use and improvement of computer program "My Fire Rules" to nearly eliminate incomplete reports that cause inconsistent analytical data.*

CLOSING STATEMENT

This report has been prepared in accordance with the HB-1756 Implementation Guide developed by the Washington Fire Chiefs and the Washington State Council of Firefighters. This report as mandated by RCW 52.33 is intended to keep the Board of Fire Commissioners and the citizens informed of our abilities as well as limitations for fire and EMS responses. All statistics are accurate to our knowledge. Data that appeared to be skewed, contained imprecise or missing information was removed to keep the report as accurate as possible, although all actual responses were included to demonstrate call volume.

This annual report will be used to facilitate improvements within the confines of the budget given to us by the public. We are committed to provide accurate and revealing data to keep an informed Board of Commissioners and for the citizens we serve on a daily basis. It is vital that all persons who support their fire service clearly understand what we can provide, as well as what we cannot.

Respectfully submitted;

Thomas O'Donohue, Deputy Chief
Poulsbo Fire Department