

Lacey Fire District Three  
1231 Franz St SE  
Lacey, WA 98503



Response Time Compliance Report  
For 2008

January 2009

## INTRODUCTION

In 2005 The Washington State Governor signed House Bill 1756 (HB 1756), which required fire service agencies to establish performance measures for service delivery and response time objectives. Additionally, fire service agencies were required to evaluate their performance against their adopted standards on an annual basis based on data from each geographical area of the agency, and to report the results to the applicable elected officials as well as to the community being served.

Beginning in 2007, fire service agencies were required to issue an annual written report based on their evaluations. In addition to the evaluation, the report had to contain the predictable consequences of any deficiencies and address steps necessary to achieve compliance with the established objectives.

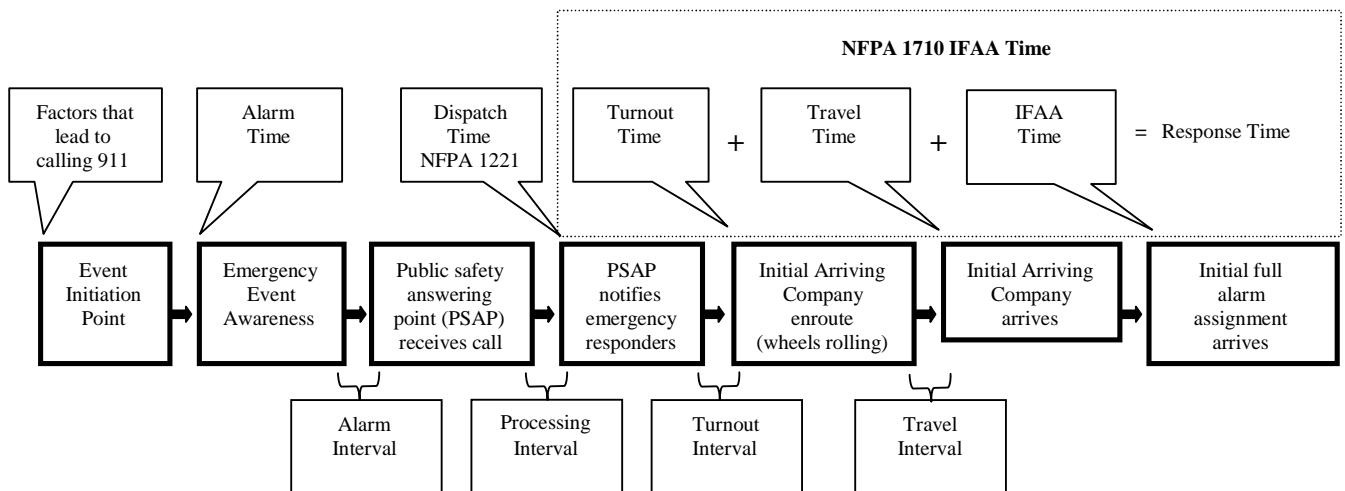
On November 1, 2007, the Lacey Fire District Board of Fire Commissioners adopted Resolution Number 783-11-07, which adopted the Districts' Emergency Response Reporting Standards. These standards and this report serve as official compliance with HB 1756 and set forth our performance measures.

## Response Time Compliance

Response time is traditionally thought of as the time it takes the fire service agency to *arrive* to deal with your emergency. In fact, response time is a series of subcomponents or events, some of which can be quantified and analyzed. The series, or “cascade” of events includes:

1. Something happens – vehicle accident, fire, heart attack, etc.
2. Someone calls 9-1-1
3. 9-1-1- center answers the phone
4. 9-1-1- center processes the call and alerts the fire service agency
5. Fire service agency starts enroute to your call
6. The first fire service agency unit arrives and begins to help with your emergency
7. All fire service units dispatched arrive to handle your emergency

This “Cascade of Events” can be depicted as shown below:



HB 1756 requires that fire service agencies set standards and report on three of the subcomponents:

- turnout time
- first arriving unit time (referred to as response time, or travel time)
- full initial alarm assignment time (referred to as response time, or travel time)

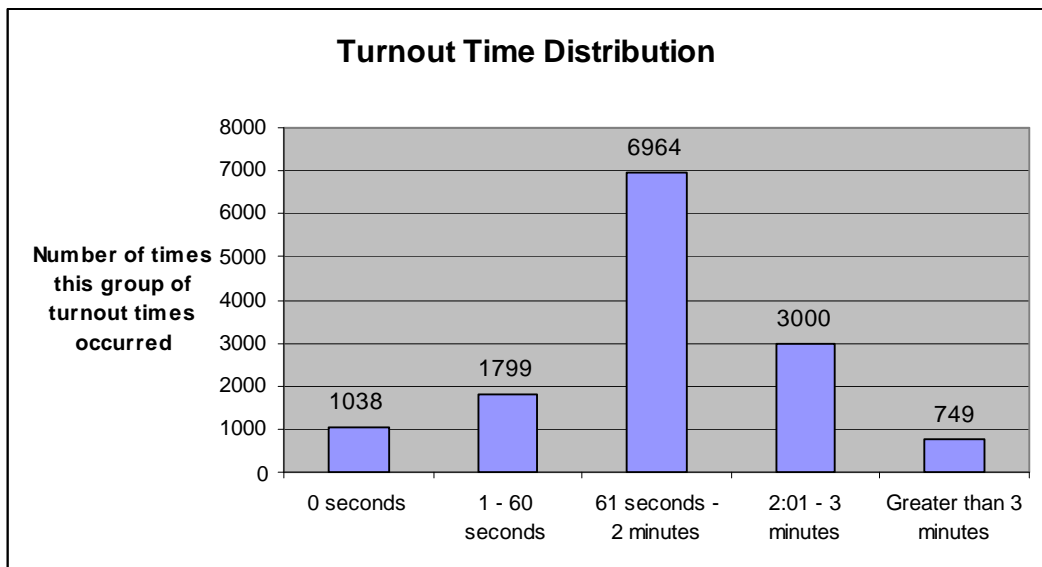
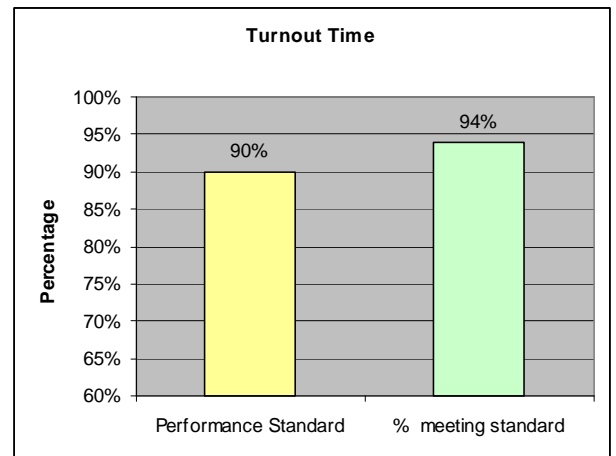
## Turnout Time

**Turnout time** is the sub-component of time starting when the units receive notification of an emergency and ends when they begin their response.

Turnout time has no geographical significance, therefore, the District set the same standard for all stations and all units. **The Turnout Time performance standard for Lacey Fire District is 3 minutes, 90% of the time.**

In analyzing turnout times, the District looked at all units responding to all incidents; some incidents have multiple units assigned or dispatched. In 2008, there were 10,474 incidents and the total number of units that responded to these incidents was 13,550.

- 90% of the time the District had a turnout time of 2:38 or less
- 94% of the responses had a turnout time of 3 minutes or less (12,801 / 13,550)



## Response Time (Travel Time)

HB 1756 defines the time starting when the units begin to respond to the incident and ending when a unit or units arrive on the scene of the incident as *Response Time*. Functionally, this is the time subcomponent where the unit is traveling to the incident, so to avoid confusion this report will use the term **Travel Time** to denote this subcomponent.

HB 1756 requires standards for and an evaluation of travel time for the first arriving unit that is able to handle the incident. It requires that the District establish first arriving unit times for:

- a fire suppression incident,
- an EMS incident,
- a wildland incident and
- special operations, which Lacey Fire District defines as a rescue or hazardous materials/conditions incident.

Additionally, since fire suppression requires a number of apparatus and personnel to safely mitigate the incident, HB 1756 requires establishing a standard for travel time and evaluating performance for the **full first alarm assignment**, or in other words, a standard that establishes a timeframe all the designated units to arrive.

The District has divided its service area into five (5) station areas and has established travel times for each station area. The chart below identifies the travel time standard for the first arriving unit for a fire suppression call, an EMS call, and a wildland call:

Area	Target Standard for 1 <sup>st</sup> arriving unit	Performance Level
Station 31 – Lacey core	11 minutes	90% of the time
Station 32 – Lake St Claire	15 minutes	90% of the time
Station 33 – Ruddell Road	13 minutes	90% of the time
Station 34 – Hawks Prairie	13 minutes	90% of the time
Station 35 – Willamette Dr	14 minutes	90% of the time
All station areas	<i>Full 1<sup>st</sup> alarm assignment*</i> is 17 minutes	90% of the time
All station areas	First arriving unit for <i>Special Operations</i> is 17 minutes	90% of the time

\* For a residential structure fire, in all station areas, a full first alarm assignment consists of three engine companies, one ladder company, a command unit, a medical unit and a Chief Officer.

## Travel Time Performance<sup>1</sup>

<b>EMS – 1<sup>st</sup> arriving unit</b>	<b>St 31</b> 11 mins	<b>St 32</b> 15 mins	<b>St 33</b> 13 mins	<b>St 34</b> 13 mins	<b>St 35</b> 14 mins
Total # of calls	2776	268	1355	1397	301
# meeting LFD3 standard	2674	243	1313	1340	282
Percentage compliance	96%	90%	97%	96%	94%
<b>Wildland – 1<sup>st</sup> arriving unit</b>	<b>St 31</b> 11 mins	<b>St 32</b> 15 mins	<b>St 33</b> 13 mins	<b>St 34</b> 13 mins	<b>St 35</b> 14 mins
Total # of calls	19	2	24	35	2
# meeting LFD3 standard	18	2	22	29	2
Percentage compliance	95%	100%	92%	83%	100%
<b>Special Operations – 1<sup>st</sup> arriving unit</b>	<b>St 31</b> 17 mins	<b>St 32</b> 17 mins	<b>St 33</b> 17 mins	<b>St 34</b> 17 mins	<b>St 35</b> 17 mins
Total # of calls	36	4	18	14	9
# meeting LFD3 standard	36	4	17	14	9
Percentage compliance	100%	100%	94%	100%	100%
<b>Fire Suppression – 1<sup>st</sup> arriving unit</b>	<b>St 31</b> 11 mins	<b>St 32</b> 15 mins	<b>St 33</b> 13 mins	<b>St 34</b> 13 mins	<b>St 35</b> 14 mins
Total # of calls	45	10	27	47	10
# meeting LFD3 standard	44	9	25	46	9
Percentage compliance	98%	90%	92%	98%	90%
<b>Full 1<sup>st</sup> alarm assignment<sup>2</sup>, residential structure fire</b>	<b>St 31</b> 17 mins	<b>St 32</b> 17 mins	<b>St 33</b> 17 mins	<b>St 34</b> 17 mins	<b>St 35</b> 17 mins
Total # of calls	9	0	4	3	2
# meeting LFD3 standard	1	0	0	2	0
Percentage compliance	11%	0%	0%	66%	0%

<sup>1</sup> The travel performance above does not include every incident that the District responded to; many incidents are not classified in the above categories, such as fire alarm activations, smoke investigations and invalid assists.

<sup>2</sup> The District has defined a full alarm assignment as 3 engines, a truck, a Battalion, an EMS vehicle, and a Chief; most often one of these elements was missing for the response.

## Areas of Concern

### 1. Data

While a marked improvement has been made in the collection of data through the implementation of a computer aided dispatch (CAD) data link in May of 2008, data accuracy is an ongoing concern.

### 2. Travel Time Performance Below 90%

Travel time performance standards were not achieved for Station 34 Wildland responses and for all Station areas for Full First Alarm Assignments.

These two substandard performance levels are an effect of a staffing level decrease in June of 2008. A bit of history may help this statement.

In 2007, the District had a minimum staffing level of 18 personnel; each of four staffed Stations had an engine staffed with 3 firefighter EMTs, and Station 31 – headquarters and the busiest station – had a staffed engine (3), an aid unit (2), a Ladder Truck (3) and a Command Unit. On days that had more than the required minimum, additional units were staffed. This provided at least five units to respond to emergencies; simultaneous calls could be handled and units were not frequently outside of their assigned area.

In mid-to-late 2007, due to budget constraints, the District reduced the minimum staffing to 16 personnel. This decision resulted in one less unit available – the Aid Unit was not staffed – and as a consequence, the capacity for handling multiple calls was somewhat reduced. Further, as the units were moved from their regular response areas, the potential for longer travel times became more likely.

In mid-2008, again in response to budget constraints, the District further decreased minimum staffing to 13 personnel. This reduced staffing configuration resulted in still fewer available when the day had only minimum staffing and also resulted in not being able to staff the Ladder Truck on a regular basis. Not staffing the Ladder Truck ensures that the Full First Alarm Assignment was not able to be met.

Wildland response times were likely also not met due to the reduced staffing; much of the summer – when the majority of wildland-type fires occur – had only minimum staffing due to scheduled vacation.

With the call volume experienced by the District (10,474 calls in 2008), the effects of a decreased number of staffed units as units were pulled from their main response areas more frequently resulting in longer travel times, and on many occasions insufficient staffing to provide for staffing the Ladder Truck. These circumstances impacted the ability to fully meet our performance standards.

## Predictable Consequences

Traditionally, fire service agencies want to be able to arrive quickly at an emergency scene; fire service data indicates an early, aggressive and offensive primary interior attack on a working fire is the most effective strategy to reduce loss of lives and property damage.

At approximately 10 minutes conditions can occur in a structure fire that significantly increase the likelihood of extension of the fire beyond the room of origin, creating extensive property damage and death. Therefore, response time becomes critical to the likelihood of successful outcomes.

**Table A.5.2.2.2.1 Fire Extension in Residential Structures 1994–1998**

Extension	Rate per 1000 Fires		
	Civilian Deaths	Civilian Injuries	Dollar Loss per Fire
Confined to the room of origin	2.32	35.19	3,185
Beyond the room but confined to the floor of origin	19.68	96.86	22,720
Beyond the floor of origin	26.54	63.48	31,912

Note: Residential structures include dwellings, duplexes, manufactured homes (also called mobile homes), apartments, row houses, townhouses, hotels and motels, dormitories, and barracks.

Source: NFPA Annual Fire Experience Survey and National Fire Incident Reporting System.

NFPA 1710, 2004 edition

On the Emergency Medical Services side, EMS data indicates that brain death begins in four to six minutes if no CPR and defibrillation occurs during that time<sup>3</sup>. Other adverse medical events, such as strokes, are also time sensitive and have better outcomes if intervention begins rapidly. Trauma, such as that from vehicle accidents or falls, also requires swift action to lessen the negative effects.

While we have met nearly all of our response time standards, our capability, given the resources currently available, is illustrated in our response standards, all of which exceed 10 minutes.

<sup>3</sup> American Heart Association, <http://www.americanheart.org>

## Plan for Achieving Compliance

1. The District is continuing training and education efforts to increase the accuracy of the data collected.
2. The District is engaging in ongoing efforts to address staffing issues. For the Fire District area, voters twice rejected a levy lid lift measure in 2008. Fire District Commissioners continue to evaluate options for revenue in the Fire District area. In the City area, a contractual agreement governs the fire services relationship between the City of Lacey and the District. The contract provided for an “opener” to discuss staffing issues, but the City, as of December 31, 2008, made the decision to not provide additional funding. Discussions with the City are ongoing as of this report.
3. The District continues efforts on the Accreditation process, and is focusing in 2009 on the “Standards of Cover” a comprehensive document outlining community risk, total effective firefighting force needed for types of incidents, distribution of resources, staffing, and number of apparatus, and what the District can provide based on resources available. The completion of this document will help identify the appropriate placement and concentration of units for response.