

LAKE STEVENS FIRE DEPARTMENT  
ANNUAL REPORT  
2008



In accordance with RCW 52.33 the Lake Stevens Fire Department submits this report for the citizens of the Lake Stevens Fire Department.

## Purpose:

The Lake Stevens Fire Department shall evaluate its level of service and deployment delivery and response time objectives on an annual basis. The evaluations are based on data relating to level of service, deployment, and the achievement of each response time objective in each geographic area within the Lake Stevens Fire Department. This report includes:

1. Geographic areas and circumstances in which the requirements of the standard are not being met.
2. Explains predictable consequences or any deficiencies and addresses the steps that are necessary to achieve compliance.

## Supporting Documentation:

### **Appendix A: Lake Stevens Fire Resolution No 2006-12-28-01.**

- Resolution of the board of fire commissioners for Lake Stevens Fire declaring an established fire department, listing the services provided by the department, describing the organizational structure and the number of employees and volunteers, and adopting standards for service.

### **Appendix B : Lake Stevens Fire – Standard of Response Coverage**

LAKE STEVENS FIRE  
RESPONSE TIME OBJECTIVES - EVALUATION  
2008  
Suburban Response Area

1) Turnout Time

Turnout Time Objective:

The Lake Stevens Fire Department has adopted a turnout time objective of 60 seconds, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the turnout time objective 12% of the time. 90% of the fire department incidents experienced a turnout time of 185 Seconds.

2) Initial Response Unit at a Single Engine Response

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of four (4) minutes for the 1<sup>st</sup> arriving response unit with appropriately trained personnel on board which can begin mitigation of a Single Engine Response, which the department should meet 90% of the time..

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 52% of the time. 90% of single engine responses had the first unit arrive at the scene within 7 minutes: 33 seconds of response time

3) Arrival of 1<sup>st</sup> Arriving Unit at a Residential Structure Fire.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of four (4) minutes for the 1<sup>st</sup> arriving unit with appropriately trained personnel on board which can begin mitigation of a Residential Structure Fire, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 50% of the time. 90% of residential structure fire incidents had the 1<sup>st</sup> unit arrive at the scene within 6 minutes: 52 seconds of response time.

4) **Deployment of Full First Alarm Assignment at a Residential Structure Fire.**

Response Time Objective for Full 1<sup>st</sup> Alarm Response:

The Lake Stevens Fire Department has adopted a response/travel time objective of eight (8) minutes for the arrival of the full complement of a 1<sup>st</sup> alarm response to a Residential Structure Fire, which the department should meet 90% of the time. Further, the Lake Stevens Fire Department has adopted a 1<sup>st</sup> alarm response of 2 engine companies, 1 aid unit, and 1 medic unit.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the full deployment response time objective 60% of the time. 90% of residential structure fire incidents had the full deployment of 1<sup>st</sup> alarm responding personnel and equipment arrive at the scene within 9 minutes: 56 seconds of response time.

5) **Initial Response Unit at a Commercial Structure Fire**

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of four (4) minutes for the 1<sup>st</sup> arriving unit with appropriately trained personnel on board which can begin mitigation of a Commercial Structure Fire, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 67% of the time. 90% of commercial structure fire incidents had the 1<sup>st</sup> unit arrive at the scene within 9 minutes: 19 seconds of response time.

6) Deployment of Full First Alarm Assignment at a Commercial Structure Fire.

Response Time Objective for Full 1<sup>st</sup> Alarm Response:

The Lake Stevens Fire Department has adopted a response/travel time objective of eight (8) minutes for the arrival of the full complement of a 1<sup>st</sup> alarm response to a Commercial Structure Fire, which the department should meet 90% of the time. Further, the Lake Stevens Fire Department has adopted a 1<sup>st</sup> alarm response of 3 engine companies, 1 rescue unit, 1 aid unit, and 1 medic unit.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the full deployment response time objective 33% of the time. 90% of commercial structure fire incidents had the full deployment of 1<sup>st</sup> alarm responding personnel and equipment arrive at the scene within 12 minutes: 00 seconds of response time.

7) Initial Response Unit at a Brush Fire Incident

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of four (4) minutes for the 1<sup>st</sup> arriving response unit with appropriately trained personnel on board which can begin mitigation of a Brush Fire Incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 33% of the time. 90% of Brush Fire responses had the first unit arrive at the scene within 7 minutes: 23 seconds of response time.

8) Deployment of Full First Alarm Assignment at a Brush Fire Incident.

Response Time Objective for Full 1<sup>st</sup> Alarm Response:

The Lake Stevens Fire Department has adopted a response/travel time objective of eight (8) minutes for the arrival of the full complement of a 1<sup>st</sup> alarm response to a brush fire incident, which the department should meet 90% of the time. Further, the Lake Stevens Fire Department has adopted a 1<sup>st</sup> alarm response of 1 engine company, 1 brush truck, and 1 aid unit.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the full deployment response time objective 100% of the time. 90% of brush fire incidents had the full deployment

of 1<sup>st</sup> alarm responding personnel and equipment arrive at the scene within 7 minutes: 57 seconds of response time.

9) Arrival of First Responder of Higher Level Capability at an Emergency Medical Incident.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of four (4) minutes for the arrival of the 1<sup>st</sup> arriving response unit with appropriately trained personnel on board which can begin mitigation of an emergency medical incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 60% of the time. 90% of emergency medical incidents had the 1<sup>st</sup> unit arrive at the scene within 6 minutes: 46 seconds of response time.

10) Arrival of Advanced Life Support Unit at an Emergency Medical Incident (where ALS is required).

Response Time Objective:

Lake Stevens Fire Department has adopted a response/travel time objective of eight (8) minutes for the arrival of an advanced life support unit with appropriately trained personnel (paramedics) which can begin mitigation of an ALS emergency medical incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 94% of the time. 90% of emergency medical incidents had the Advance Life Support unit arrive at the scene within 7 minutes: 00 seconds of response time.

11) Arrival of Hazardous Materials Trained and Equipped Technicians.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of fifteen (15) minutes for the arrival of the first unit with appropriately trained and equipped Hazardous Materials Technicians on board which can begin mitigation of a hazardous materials incident, which the department should meet 90% of the time. The Lake Stevens Fire Department does not currently provide this level of service and relies on mutual aid.

Actual Department Comparison for the Year 2008:

No reportable calls for 2008

12) Arrival of Technical Rescue Trained and Equipped Technicians.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel objective of six (6) minutes for the arrival of the first unit with appropriately trained and equipped Technical Rescue Technicians on board which can begin mitigation of a technical rescue incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 100% of the time. 90% of technical rescue incidents had trained and equipped Technical Rescue Technicians arrive at the scene within 4 minutes: 09 seconds of response time.

13) Arrival of Marine Rescue and Firefighting Trained and Equipped Personnel.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of eight (8) minutes for the arrival of the first unit with appropriately trained and equipped Marine Rescue and Firefighting personnel on board which can begin mitigation of a marine incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

Lake Stevens Fire Department met the response time objective 100% of the time. 90% of marine rescue of firefighting incidents had trained and equipped Marine Rescue and Firefighting personnel arrive at the scene within 6 minutes of response time.

LAKE STEVENS FIRE  
RESPONSE TIME OBJECTIVES - EVALUATION  
2008  
Rural Response Area

1) Turnout Time.

Turnout Time Objective:

The Lake Stevens Fire Department has adopted a turnout time objective of 60 seconds, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the turnout time objective 12% of the time. 90% of the fire department incidents experienced a turnout time of 177 Seconds.

2) Initial Response Unit at a Single Engine Response

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of six (6) minutes for the 1<sup>st</sup> arriving response unit with appropriately trained personnel on board which can begin mitigation of a Single Engine Response, which the department should meet 90% of the time..

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 25% of the time. 90% of single engine responses had the first unit arrive at the scene within 11 minutes: 36 seconds of response time

3) Arrival of 1<sup>st</sup> Arriving Unit at a Residential Structure Fire.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of six (6) minutes for the 1<sup>st</sup> arriving unit with appropriately trained personnel on board which can begin mitigation of a Residential Structure Fire, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 0% of the time. 90% of residential structure fire incidents had the 1<sup>st</sup> unit arrive at the scene within 9 minutes: 21 seconds of response time.

4) Deployment of Full First Alarm Assignment at a Residential Structure Fire.

Response Time Objective for Full 1<sup>st</sup> Alarm Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of ten (10) minutes for the arrival of the full complement of a 1<sup>st</sup> alarm response to a Residential Structure Fire, which the department should meet 90% of the time. Further, the Lake Stevens Fire Department has adopted a 1<sup>st</sup> alarm response of 2 engine companies, 1 aid unit, and 1 medic unit.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the full deployment response time objective 50% of the time. 90% of residential structure fire incidents had the full deployment of 1<sup>st</sup> alarm responding personnel and equipment arrive at the scene within 12 minutes: 49 seconds of response time.

5) Initial Response Unit at a Commercial Structure Fire

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of six (6) minutes for the 1<sup>st</sup> arriving unit with appropriately trained personnel on board which can begin mitigation of a Commercial Structure Fire, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

No reportable calls for 2008

6) Deployment of Full First Alarm Assignment at a Commercial Structure Fire.

Response Time Objective for Full 1<sup>st</sup> Alarm Response:

The Lake Stevens Fire Department has adopted a response/travel time objective of ten (10) minutes for the arrival of the full complement of a 1<sup>st</sup> alarm response to a Commercial Structure Fire, which the department should meet 90% of the

time. Further, the Lake Stevens Fire Department has adopted a 1<sup>st</sup> alarm response of 3 engine companies, 1 rescue unit, 1 aid unit, and 1 medic unit.

Actual Department Comparison for the Year 2008:

No reportable calls for 2008

7) Initial Response Unit at a Brush Fire Incident

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of six (6) minutes for the 1<sup>st</sup> arriving response unit with appropriately trained personnel on board which can begin mitigation of a Brush Fire Incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

No reportable calls for 2008

8) Deployment of Full First Alarm Assignment at a Brush Fire Incident.

Response Time Objective for Full 1<sup>st</sup> Alarm Response:

The Lake Stevens Fire Department has adopted a response/travel time objective of ten (10) minutes for the arrival of the full complement of a 1<sup>st</sup> alarm response to a brush fire incident, which the department should meet 90% of the time. Further, the Lake Stevens Fire Department has adopted a 1<sup>st</sup> alarm response of 1 engine company, 1 brush truck, and 1 aid unit.

Actual Department Comparison for the Year 2008:

No reportable calls for 2008

9) Arrival of First Responder of Higher Level Capability at an Emergency Medical Incident.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of six (6) minutes for the arrival of the 1<sup>st</sup> arriving response unit with appropriately trained personnel on board which can begin mitigation of an emergency medical incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 35% of the time. 90% of emergency medical incidents had the 1<sup>st</sup> unit arrive at the scene within 12 minutes: 19 seconds of response time.

10) Arrival of Advanced Life Support Unit at an Emergency Medical Incident (where ALS is required).

Response Time Objective:

Lake Stevens Fire Department has adopted a response/travel time objective of ten (10) minutes for the arrival of an advanced life support unit with appropriately trained personnel (paramedics) which can begin mitigation of an ALS emergency medical incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

The Lake Stevens Fire Department met the response time objective 73% of the time. 90% of emergency medical incidents had the Advance Life Support unit arrive at the scene within 12 minutes: 23 seconds of response time.

11) Arrival of Hazardous Materials Trained and Equipped Technicians.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of seventeen (17) minutes for the arrival of the first unit with appropriately trained and equipped Hazardous Materials Technicians on board which can begin mitigation of a hazardous materials incident, which the department should meet 90% of the time. The Lake Stevens Fire Department does not currently provide this level of service and relies on mutual aid

Actual Department Comparison for the Year 2008:

No reportable calls for 2008

12) Arrival of Technical Rescue Trained and Equipped Technicians.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel objective of eight (8) minutes for the arrival of the first unit with appropriately trained and equipped Technical Rescue Technicians on board which can begin mitigation of a technical rescue incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

No reportable calls for 2008

13) Arrival of Marine Rescue and Firefighting Trained and Equipped Personnel.

Response Time Objective:

The Lake Stevens Fire Department has adopted a response/travel time objective of ten (10) minutes for the arrival of the first unit with appropriately trained and equipped Marine Rescue and Firefighting personnel on board which can begin mitigation of a marine incident, which the department should meet 90% of the time.

Actual Department Comparison for the Year 2008:

No reportable calls for 2008

**Predictable consequences:** The most vital consequences are base on the scientific data identified in NFPA 1710.

1. Increased frequency of brain death in patients who require defibrillation to treat cardiopulmonary arrest that presents with ventricular fibrillation.
2. Increased property loss in structural fires that have reached or exceeded the flashover phase of fire growth.

**Necessary steps to achieve compliance:**

1. **Improve Data Collection:** Current practices for data collection are achieved through the use of multiple fire department personnel manually entering call information into the RMS program. Below are some possible solutions.
  - Develop policy for data entry.
  - Provide formal initial and refresher training for all department personnel.
  - Hire one individual to input all data into the departments RMS system.
  - Develop a QA program.
  - Eliminate the use of soft data.
  - Outfit all department emergency vehicles with MDC's
2. **Evaluate Resource Distribution:** Because driving distance between the fire station and the call location is limited by safe driving speeds, topography and traffic flows. Current fire station locations must be evaluated based not only on current call volumes but also projected call volumes. The data used for this report is inadequate to make such a determination. Below are recommendations for further evaluation.
  - Evaluation of call density as it relates to each grid of the department over the past 3 years.
  - Evaluation of response times to each grid in the department over the past 3 years
  - Project the impact that future growth will have to the department as it relates to call density.
  - Complete a simulated response model for each grid.
  - Determine if the current first due station response areas are the most effective.
  - Feasibility study of future fixed sites. To include predictable benefits and cost.
3. **Evaluate Resource Concentration:** the amount of resources stationed at a fixed site. The data used for this report is inadequate to make such a determination. Below are recommendations for further evaluation.
  - Complete a task analysis for each of the major services provided by the department (Fire, EMS and Rescue).
  - Evaluation of resources outside each stations first due area as it related to the task analysis and response time from each location.
  - Determine risk/benefit of allocating resource amounts and types at a fixed site to begin mitigation vs. the capability o completely mitigate an emergency.

4. **Evaluate Resource Reliability:** Direct impact on the availability of a resource or resources at its assigned fixed site to respond to alarms in their first due area and to areas that depend on their resources to complete a full alarm assignment when needed. The data used for this report is inadequate to make such a determination. Below are recommendations for further evaluation.
- Evaluate out of service times for each resource.
  - Identify and evaluate the causes that contribute to a resource being away from its assigned fixed site.
  - Eliminate or minimize unnecessary out of service times.

## Appendix A

Lake Stevens Fire Resolution No 2006-12-28-01

## Appendix B

### Lake Stevens Fire – Standard of Response Coverage