## **Report Revision Summary**

## Report - Consideration of a Paramedic Program for the Sparks Fire Department Revised Data from the Original Report to the Revised Report

The agenda for the August 22, 2016 City Council Meeting includes an item titled "Consideration and Possible Approval of a Proposal to Implement Paramedic Level Emergency Medical Service in the Sparks Fire Department." Attached to this agenda item is a document titled "Consideration of a Paramedic Program for the Sparks Fire Department – Revised." This document is the staff report describing the paramedic proposal and includes the statistical analysis to justify its implementation. This document has been revised from the original version, which was submitted at the August 8, 2016 council meeting. It (the paramedic proposal) was pulled from the August 8 agenda at the request of a council member so that the statistical analysis could be reviewed and validated by the Washoe County EMS Oversight Program.

The reason for the revised report was because a portion of the data used in the original analysis should not have been included. On August 4, 2016, fire department staff received notification from the Washoe County EMS Oversight Program that 125 of the 11,091 EMS calls used in the original analysis were being recommended for removal. The reason for this recommendation was that REMSA did not actually arrive at these calls, but were canceled while still enroute. Since one of the key criteria in the analysis was to calculate the length of wait times for the fire department, only those calls where both REMSA and SFD arrived on scene were included in the analysis. Incidents not having an arrival time for either REMSA or Sparks Fire were removed from consideration. Since these 125 canceled enroute calls met this criteria and should not have been included in the original report, they were removed and the analysis redone. Re-doing this analysis resulted in the revised report.

The tables below provide a condensed version of the revisions made from the original report to the revised report in a side-by-side format. Revisions are indicated in red text in the Revised Version column. Revisions were made on pages 3, 4, 5, 6, 7, 8, and 13 of the report.

**NOTE:** Fire staff met with members of the Washoe County EMS Oversight Program on August 11, 2016. A comprehensive review of the data included in the analysis, as well as the methodology used, was conducted. Oversight staff confirmed that the methodology used in the analysis was sound and they validated the data results. Only the statistics for first on scene, wait times, and urgent calls was revised from the original report. **All conclusions and recommendations by fire staff, in the original report and the revised report, remain the same.** 

Table 1 - Sparks Fire First on Scene Percentages			Table 1 - Sparks Fire First on Scene Percentages						
District	SFD First	SFD Second	Total	% SFD First	District	SFD First	SFD Second	Total	% SFD First
E11	1496	919	2415	61.9%	E11	1486	916	2402	61.9%
E12	1565	1134	2699	58.0%	E12	1546	1128	2674	57.8%
E21	1745	995	2740	63.7%	E21	1733	990	2723	63.6%
E31	737	513	1250	59.0%	E31	735	506	1241	59.2%
L41	441	561	1002	44.0%	L41	436	559	995	43.8%
E51	721	264	985	73.2%	E51	720	262	982	73.3%
Total	6705	4386	11091	60.5%	Total	6656	4361	11017	60.4%
670	5 of 11,0	91 – SFD f	irst on	scene	665	6 of 11,0	17 – SFD f	irst on	scene
60.5% of time SFD is first on scene		60.	60.4% of time SFD is first on scene						

Table 2 - Wait Times for Fire D	epartment
Wait Times 0 to 5 Minutes	5410
Wait Times 5 to 10 Minutes	922
Wait Times More Than 10 Minutes	373
Total Calls where SFD Waited	6705
Average Wait Time	0:03:24
Maximum Wait Time	1:09:25
Median Wait Time	0:02:18
Count of Matched EMS Calls	11091
% of Time SFD First on Scene	60.5%

Average Wait Time – 3 minutes and 24 seconds Wait Times 5 to 10 Minutes – 922 Wait Times More Than 10 Minutes - 373

Table 2 - Wait Times for Fire Departm	ent
Calls with Wait Times 0 to 5 Minutes	5384
Calls with Wait Times 5 to 10 Minutes	912
Calls with Wait Times More Than 10 Minutes	360
Total Calls where SFD Waited	6656
Average Wait Time	0:03:22
Maximum Wait Time	1:09:25
Median Wait Time	0:02:17
Count of Matched EMS Calls	11017
% of Time SFD First on Scene	60.4%

Average Wait Time – 3 minutes and 22 seconds
Wait Times 5 to 10 Minutes – 912
Wait Times More Than 10 Minutes - 360

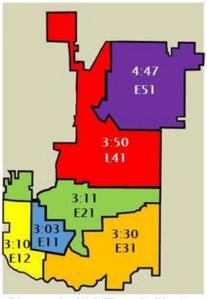
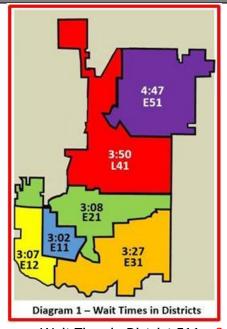


Diagram 1 - Wait Times in Districts

Average Wait Time in District E11 – 3:03 Average Wait Time in District E12 – 3:10 Average Wait Time in District E21 – 3:11 Average Wait Time in District E31 – 3:30



Average Wait Time in District E11 -3:02Average Wait Time in District E12 -3:07Average Wait Time in District E21 -3:08Average Wait Time in District E31 -3:27

Table 3 - Wait Times for District E1	1
Calls with Wait Times 0 to 5 Minutes	1275
Calls with Wait Times 5 to 10 Minutes	162
Calls with Wait Times More Than 10 Minutes	59
Total Calls where SFD Waited	1496
Average Wait Time	0:03:03
Maximum Wait Time	1:09:25
Median Wait Time	0:02:04

Total Calls Where SFD Waited – 1496 Average Wait Time – 0:03:03

Table 3 - Wait Times for District E1:	15
Calls with Wait Times 0 to 5 Minutes	1266
Calls with Wait Times 5 to 10 Minutes	162
Calls with Wait Times More Than 10 Minutes	58
Total Calls where SFD Waited	1486
Average Wait Time	0:03:02
Maximum Wait Time	1:09:25
Median Wait Time	0:02:03

Total Calls Where SFD Waited – 1486 Average Wait Time – 0:03:02

Table 4 - Wait Times for District E1	2
Calls with Wait Times 0 to 5 Minutes	1325
Calls with Wait Times 5 to 10 Minutes	166
Calls with Wait Times More Than 10 Minutes	74
Total Calls where SFD Waited	1565
Average Wait Time	0:03:10
Maximum Wait Time	1:06:55
Median Wait Time	0:02:06

Total Calls Where SFD Waited – 1565 Average Wait Time – 0:03:10

Table 4 - Wait Times for District E1	2
Calls with Wait Times 0 to 5 Minutes	1315
Calls with Wait Times 5 to 10 Minutes	163
Calls with Wait Times More Than 10 Minutes	68
Total Calls where SFD Waited	1546
Average Wait Time	0:03:07
Maximum Wait Time	1:06:55
Median Wait Time	0:02:05

Total Calls Where SFD Waited – 1546 Average Wait Time – 0:03:07

Table 5 - Wait Times for District E2	21
Calls with Wait Times 0 to 5 Minutes	1429
Calls with Wait Times 5 to 10 Minutes	240
Calls with Wait Times More Than 10 Minutes	76
Total Calls where SFD Waited	1745
Average Wait Time	0:03:11
Maximum Wait Time	0:46:58
Median Wait Time	0:02:15

Total Calls Where SFD Waited – 1745 Average Wait Time – 0:03:11

Table 5 - Wait Times for District E2	1
Calls with Wait Times 0 to 5 Minutes	1425
Calls with Wait Times 5 to 10 Minutes	236
Calls with Wait Times More Than 10 Minutes	72
Total Calls where SFD Waited	1733
Average Wait Time	0:03:08
Maximum Wait Time	0:35:28
Median Wait Time	0:02:14

Total Calls Where SFD Waited – 1733 Average Wait Time – 0:03:08

Table 6 - Wait Times for District E3	1
Calls with Wait Times 0 to 5 Minutes	595
Calls with Wait Times 5 to 10 Minutes	101
Calls with Wait Times More Than 10 Minutes	41
Total Calls where SFD Waited	737
Average Wait Time	0:03:30
Maximum Wait Time	0:42:02
Median Wait Time	0:02:20

Total Calls Where SFD Waited – 737 Average Wait Time – 0:03:30

Table 6 - Wait Times for District E3:	1
Calls with Wait Times 0 to 5 Minutes	595
Calls with Wait Times 5 to 10 Minutes	100
Calls with Wait Times More Than 10 Minutes	40
Total Calls where SFD Waited	735
Average Wait Time	0:03:27
Maximum Wait Time	0:42:02
Median Wait Time	0:02:20

Total Calls Where SFD Waited – 735 Average Wait Time – 0:03:27

Calls with Wait Times 0 to 5 Minutes	317
Calls with Wait Times 5 to 10 Minutes	87
Calls with Wait Times More Than 10 Minutes	37
Total Calls where SFD Waited	441
Average Wait Time	0:03:50
Maximum Wait Time	0:27:17
Median Wait Time	0:02:26

Total Calls Where SFD Waited – 441 Average Wait Time – 0:03:50

Table 7 - Wait Times for District L41		
Calls with Wait Times 0 to 5 Minutes	314	
Calls with Wait Times 5 to 10 Minutes	85	
Calls with Wait Times More Than 10 Minutes	37	
Total Calls where SFD Waited	436	
Average Wait Time	0:03:50	
Maximum Wait Time	0:27:17	
Median Wait Time	0:02:25	

Total Calls Where SFD Waited – 436 Average Wait Time – 0:03:50

Table 8 - Wait Times for District Es	51
Calls with Wait Times 0 to 5 Minutes	469
Calls with Wait Times 5 to 10 Minutes	166
Calls with Wait Times More Than 10 Minutes	86
Total Calls where SFD Waited	721
Average Wait Time	0:04:47
Maximum Wait Time	0:40:34
Median Wait Time	0:03:22

Total Calls Where SFD Waited – 721 Average Wait Time – 0:04:47

Table 8 - Wait Times for District E51		
Calls with Wait Times 0 to 5 Minutes	469	
Calls with Wait Times 5 to 10 Minutes	166	
Calls with Wait Times More Than 10 Minutes	85	
Total Calls where SFD Waited	720	
Average Wait Time	0:04:47	
Maximum Wait Time	0:40:34	
Median Wait Time	0:03:22	

Total Calls Where SFD Waited – 720 Average Wait Time – 0:04:47

Table 9 - Urgent EMS Call Volume		
Provider Primary Assessment	Number of EMS Incidents	
Airway obstruction	24	
Allergic reaction	35	
Altered level of consciousness	421	
Cardiac arrest	74	
Cardiac rhythm disturbance	51	
Chest pain / discomfort	283	
Diabetic symptoms (hypoglycemia)	114	
Hyperthermia	6	
Hypothermia	2	
Hypovolemia / shock	16	
Poisoning / drug ingestion	35	
Pregnancy / OB delivery	16	
Respiratory arrest	3	
Respiratory distress	326	
Seizure	189	
Stroke / CVA	66	
Syncope / fainting	184	
Traumatic injury	897	
Total	2742	

Total Urgent Calls – 2742
Total Cardiac Related Calls – 408
Total Respiratory Related Calls – 353
Total Altered / Stroke Related Calls – 671
Total Trauma Calls - 897

Provider Primary Assessment	Number of EMS Incidents
Airway obstruction	24
Allergic reaction	35
Altered level of consciousness	419
Cardiac arrest	74
Cardiac rhythm disturbance	51
Chest pain / discomfort	283
Diabetic symptoms (hypoglycemia)	114
Hyperthermia	6
Hypothermia	2
Hypovolemia / shock	16
Poisoning / drug ingestion	35
Pregnancy / OB delivery	16
Respiratory arrest	3
Respiratory distress	325
Se izure	189
Stroke / CVA	66
Syncope / fainting	183
Traumatic injury	886
Total	2727

Total Urgent Calls – 2727

Total Cardiac Related Calls – 408

Total Respiratory Related Calls – 352

Total Altered / Stroke Related Calls – 668

Total Trauma Calls - 886

Table 11 - Respiratory Wait Time	S
Calls with Wait Times 0 to 5 Minutes	293
Calls with Wait Times 5 to 10 Minutes	46
Calls with Wait Times More Than 10 Minutes	14
Total Calls where SFD Waited	353
Average Wait Time	0:03:23
Maximum Wait Time	0:35:28
Median Wait Time	0:02:13

Total Calls Where SFD Waited – 353 Average Wait Time – 0:03:23

Table 11 - Respiratory Wait Time:	s
Calls with Wait Times 0 to 5 Minutes	293
Calls with Wait Times 5 to 10 Minutes	45
Calls with Wait Times More Than 10 Minutes	14
Total Calls where SFD Waited	352
Average Wait Time	0:03:22
Maximum Wait Time	0:35:28
Median Wait Time	0:02:13

Total Calls Where SFD Waited – 352 Average Wait Time – 0:03:22

Table 12 - Altered / Stroke Wait Tin	nes	Table 12 - Altered / Stroke Wait Tin	ies
Calls with Wait Times 0 to 5 Minutes	526	Calls with Wait Times 0 to 5 Minutes	524
Calls with Wait Times 5 to 10 Minutes	108	Calls with Wait Times 5 to 10 Minutes	108
Calls with Wait Times More Than 10 Minutes	37	Calls with Wait Times More Than 10 Minutes	36
Total Calls where SFD Waited	671	Total Calls where SFD Waited	668
Average Wait Time	0:03:45	Average Wait Time	0:03:44
Maximum Wait Time	0:34:35	Maximum Wait Time	0:34:39
Median Wait Time	0:02:44	Median Wait Time	0:02:44
Total Calls Where SFD Waited - Average Wait Time – 0:03:4	· -	Total Calls Where SFD Waited Average Wait Time – 0:03:4	
Total Callo Title Co. 2 Trailed	· -	Total Gallo Tilloro G. D. Trailean	
Average Wait Time – 0:03:4	· -	Average Wait Time – 0:03:4	
Average Wait Time – 0:03:4  Table 13 - Trauma Wait Times	15	Average Wait Time – 0:03:4	44
Average Wait Time – 0:03:4  Table 13 - Trauma Wait Times Calls with Wait Times 0 to 5 Minutes	646	Average Wait Time – 0:03:4  Table 13 - Trauma Wait Times Calls with Wait Times 0 to 5 Minutes	642
Average Wait Time – 0:03:4  Table 13 - Trauma Wait Times Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes	646 170	Table 13 - Trauma Wait Times Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes	642
Average Wait Time – 0:03:4  Table 13 - Trauma Wait Times Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes Calls with Wait Times More Than 10 Minutes	646 170 81	Table 13 - Trauma Wait Times  Calls with Wait Times 0 to 5 Minutes  Calls with Wait Times 5 to 10 Minutes  Calls with Wait Times More Than 10 Minutes	642 169 75 886
Average Wait Time – 0:03:4  Table 13 - Trauma Wait Times Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes Calls with Wait Times More Than 10 Minutes Total Calls where SFD Waited	646 170 81 897	Table 13 - Trauma Wait Times  Calls with Wait Times 0 to 5 Minutes  Calls with Wait Times 5 to 10 Minutes  Calls with Wait Times More Than 10 Minutes  Total Calls where SFD Waited	642 169 75

**NOTE:** In the following four tables considerable differences will be noted from the original to the revised versions of the report. The reason for these differences was that the original analysis for these District E51 tables had only included twelve months of data (January 1, 2015 through December 31, 2015). In the revised tables, all fifteen months (January 1, 2015 through March 31, 2016) were used.

Average Wait Time – 0:04:24

Average Wait Time – 0:04:30

Calls with Wait Times 0 to 5 Minutes	30	Calls with Wait Times 0 to 5 Minutes	42
Calls with Wait Times 5 to 10 Minutes	11	Calls with Wait Times 5 to 10 Minutes	15
Calls with Wait Times More Than 10 Minutes	7	Calls with Wait Times More Than 10 Minutes	9
Total Calls where SFD Waited	48	Total Calls where SFD Waited	66
Average Wait Time	0:05:25	Average Wait Time	0:05:22
Maximum Wait Time	0:20:15	Maximum Wait Time	0:20:15
Median Wait Time  Table 15 - District E51 Respiratory Wait		Median Wait Time  Table 15 - District E51 Respiratory Wait	
Table 15 - District E51 Respiratory Wait	Times	Table 15 - District E51 Respiratory Wait	Times
Table 15 - District E51 Respiratory Wait Calls with Wait Times 0 to 5 Minutes	Times 26	Table 15 - District E51 Respiratory Wait Calls with Wait Times 0 to 5 Minutes	Times 32
Table 15 - District E51 Respiratory Wait Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes	26 8	Table 15 - District E51 Respiratory Wait Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes	Times 32 11
Table 15 - District E51 Respiratory Wait Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes Calls with Wait Times More Than 10 Minutes	26 8 4	Table 15 - District E51 Respiratory Wait Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes Calls with Wait Times More Than 10 Minutes	32 11 4
Table 15 - District E51 Respiratory Wait Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes Calls with Wait Times More Than 10 Minutes Total Calls where SFD Waited	26 8 4 38	Table 15 - District E51 Respiratory Wait Calls with Wait Times 0 to 5 Minutes Calls with Wait Times 5 to 10 Minutes Calls with Wait Times More Than 10 Minutes Total Calls where SFD Waited	32 11 4 47

Table 16 - District E51 Altered/Stroke Wa	ait Times
Calls with Wait Times 0 to 5 Minutes	43
Calls with Wait Times 5 to 10 Minutes	27
Calls with Wait Times More Than 10 Minutes	6
Total Calls where SFD Waited	76
Average Wait Time	0:04:53
Maximum Wait Time	0:13:16
Median Wait Time	0:04:24

Calls with Wait Times 0 to 5 Minutes	53
Calls with Wait Times 5 to 10 Minutes	32
Calls with Wait Times More Than 10 Minutes	8
Total Calls where SFD Waited	93
Average Wait Time	0:04:56
Maximum Wait Time	0:13:16
Median Wait Time	0:04:19

Table 17 - District E51 Trauma Wait T	imes
Calls with Wait Times 0 to 5 Minutes	41
Calls with Wait Times 5 to 10 Minutes	20
Calls with Wait Times More Than 10 Minutes	14
Total Calls where SFD Waited	75
Average Wait Time	0:06:03
Maximum Wait Time	0:22:00
Median Wait Time	0:04:19

Table 17 - District E51 Trauma Wait T	imes
Calls with Wait Times 0 to 5 Minutes	57
Calls with Wait Times 5 to 10 Minutes	25
Calls with Wait Times More Than 10 Minutes	18
Total Calls where SFD Waited	100
Average Wait Time	0:05:53
Maximum Wait Time	0:25:41
Median Wait Time	0:04:06