

# City of Aberdeen

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## AMBULANCE UTILITY COST OF SERVICE AND RATE STUDY



Prepared By



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November 1, 2006

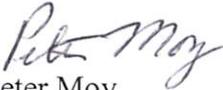
Ms. Kathryn Skolrood  
City of Aberdeen  
200 East Market Street  
Aberdeen, Washington 98520

**Subject: Ambulance Utility Cost of Service and Rate Study**

Dear Ms. Skolrood:

We are pleased to submit our final report summarizing the results of our cost of service and rate study for the City's ambulance utility. We want to thank you and Chief Carlberg and his staff for your assistance and guidance in developing the cost of service analysis and rates. If there are any questions, please do not hesitate to contact us (425) 867-1802 ext. 228.

Very truly yours,

  
Peter Moy  
Principal

Enclosure

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## I. INTRODUCTION

Prior to 2004, the City of Aberdeen charged an ambulance fee to support its emergency medical services and ambulance services, but when the Washington State Supreme Court ruled in the Arborwood v. the City of Kennewick case that such fees were not constitutional, the City replaced the fee revenue with utility business and occupational taxes on its City operated utilities. During Washington's 2005 legislative session, the Legislature passed engrossed substitute House Bill 1635 (RCW 35.21.766), which allows cities to charge an ambulance fee, and as part of the City's 2007 budget issues, the City is considering whether to re-institute its ambulance fee. The legislation included the following provisions:

- Provides for ambulance service to be operated as a public utility after certain processes are followed,
- Authorizes the City Council to set and collect rates and charges for regulating, operating and maintaining an ambulance utility,
- Requires that rates and charges be determined through a cost of service study,
- Does not allow capital costs for construction, major renovation, or major repair of physical plant, and
- Categorizes costs attributable to availability of ambulance service and the demand placed on the service.

The study involved working with the City staff to gather data and define costs, and we want to acknowledge the City's assistance in conducting this study, especially the Finance Director Kathryn Skolrood, Fire Chief Dave Carlberg, and Susie Johnson.

### **The Aberdeen Fire Department**

The Aberdeen Fire Department provides both fire and emergency services and emergency medical and ambulance services (EMS) to the City's residents and visitors. The City also has contracts with neighboring fire districts and the City of Cosmopolis to provide EMS services. The Department operates from two fire stations and has 37 employees that consist of four administrative staff, three battalion chiefs, six captains, and 24 firefighters. Of the 33 station personnel, 16 are paramedics. The Department's Headquarters Station is usually staffed with a battalion chief, a captain, and three firefighters, while Station 2 is staffed by a captain and two firefighters. All the staff at a station respond to fire and emergency incidents, but usually for an EMS incident, only two staff respond in an ambulance. If additional personnel are needed at an EMS incident, the remaining station personnel also respond as an engine assist. As part of its EMS responses, the Department also provides transportation to medical facilities, if necessary. Scheduled transports are also provided to transfer patients between medical facilities and their homes.

## II. COST OF SERVICE ANALYSIS

According to RCW 35.21.766 once a jurisdiction establishes an ambulance utility, any ambulance rates and charges must be based on a cost of service study. As noted in Chapter I, the City's Fire Department operates as an integrated fire and EMS department, and the Department's station personnel respond to both types of incidents. As a result, the Department's costs must be divided appropriately between fire and EMS activities.

The Department is supported by two different budgets. The City currently establishes its fire budget and ambulance budget by assigning various personnel and non-labor costs to each budget. The fire budget is supported by the General Fund, while the ambulance budget is primarily funded by ambulance charges and public utility business and occupation taxes. The budgets, however, are not based on a cost of service approach. As shown in Exhibit 1, the 2006 General Fund fire budget represents 67% of the total budget for fire and ambulance services. Inter-fund transfers between the two budgets have been excluded.

### **Exhibit 1 2006 Fire Department Budget**

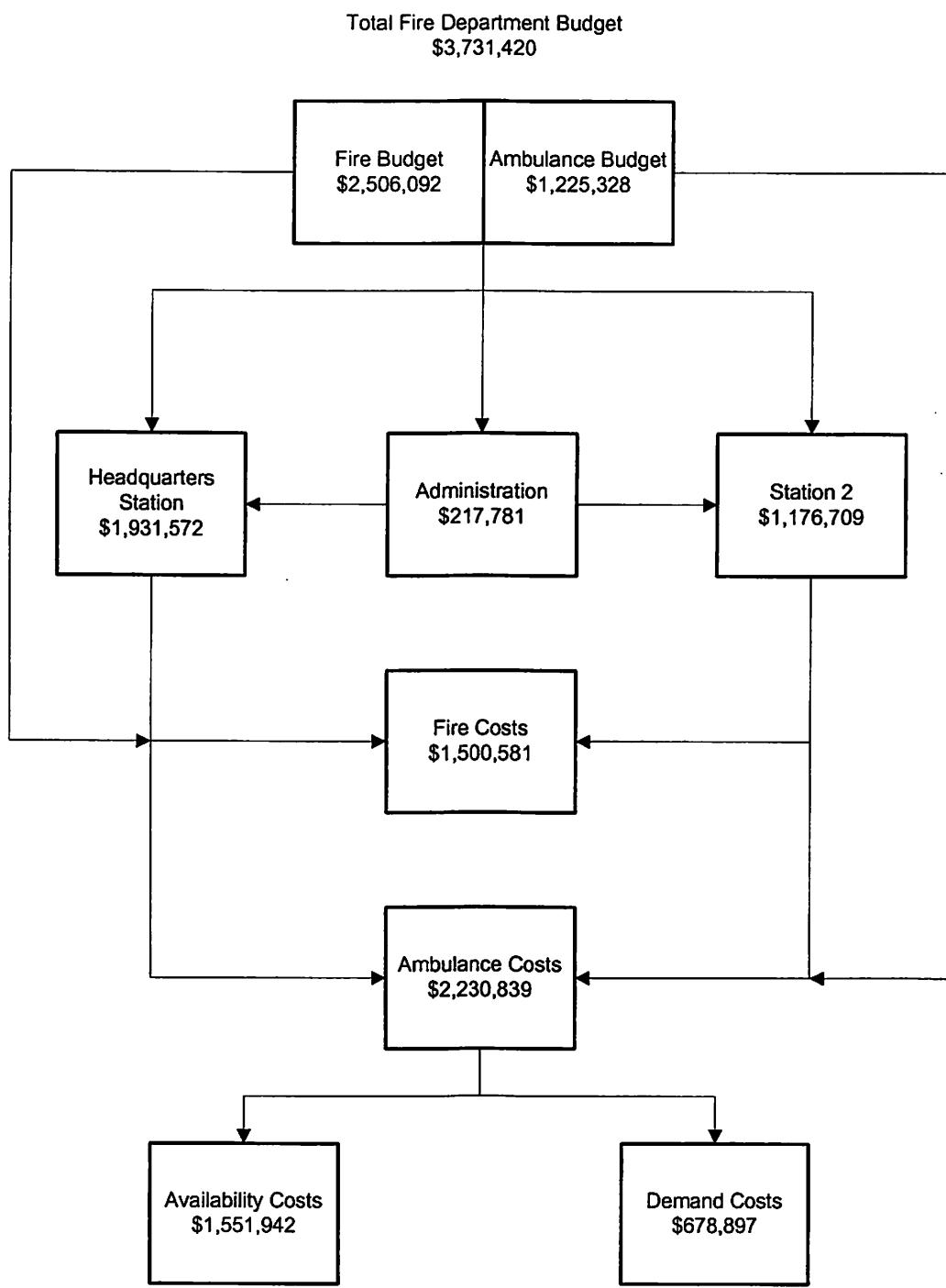
<b>Budget</b>	<b>Amount</b>
Fire	\$2,506,092
Ambulance	<u>\$1,225,328</u>
Total	\$3,731,420

To identify the cost of service, several cost allocation steps were used to establish the cost of service for both fire and ambulance services. The allocation process consists of the following steps:

- Identifying the costs within the fire and ambulance budgets for administration, facilities, fire stations, specific fire related activities, and ambulance services,
- Allocating administrative and facilities costs to each station,
- Allocating each station's cost between fire and ambulance services, and
- Dividing the ambulance costs between availability and demand costs.

Exhibit 2 shows the framework for the overall allocation process to determine the cost of service for ambulance services. The amounts shown at each step are the allocated costs.

**Exhibit 2**  
**Cost of Service Framework\***



\* Excludes inter-fund transfers

The first step in the process is to allocate the 2006 adopted fire and ambulance budgets to determine the costs for administration, facilities, and stations as well as identify any specific fire and ambulance costs. To establish these costs for each category, several allocation factors were used.

- The 2006 salary and benefit costs in the fire and ambulance budgets were allocated to each station based on the actual salaries and benefits and the ratio of the on-duty staffing levels at each station. Except for battalion chiefs, no specific station assignments are made for captains and firefighters. The actual personnel costs were divided between the stations and between fire and ambulance services to establish the percentages applied to the fire and ambulance salary and benefit budgets. The premium pay for paramedic and EMT certifications were all allocated to the ambulance costs. Overtime costs are divided based on the on-duty staffing at each station.
- Equipment operating, maintenance, and replacement costs for each station and for administration were allocated based on the actual equipment assigned to fire, ambulance, and administration at each station,
- A majority of the miscellaneous budget items are allocated based on the percentage of on-duty staffing at each station,
- Several line items in the ambulance budget were allocated only to the ambulance costs. The other major ambulance costs are those administration costs associated with billing patients for the EMS and transport services.
- Several line items in the fire budget, such as supplies for hazardous materials, were allocated only to the fire costs.
- The City's budgets already identify the administration costs, and these costs were allocated to each station based on-duty staffing at each station,
- The City's budgets also identify the facilities costs, and these costs were allocated based on the percentage of square feet occupied by the Headquarters Station, Station 2, administration, fire apparatus, and ambulance apparatus. The square feet allocations were based on the actual square footage occupied by the station personnel, equipment, and administration. The Department's administrative offices and the ambulance billing space are located at the Headquarters station. Shared space such as common areas and living quarters were allocated based on percentage of actual square footage occupied by specific fire and ambulance functions.

Exhibits 3 and 4 show how the line items for the fire and ambulance budgets were allocated.

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**Exhibit 3**  
**Fire Budget**

Line Item	Budget Allocation Method	HQ Station	Station #2	Admin	Fire Only	Ambulance Only	Total
<b>Administration</b>							
Salaries & wages-regular	\$ 116,940 To Admin	\$ -	\$ -	\$ 116,940	\$ -	\$ -	\$ 116,940
Benefits Budget	\$ 21,296 To Admin	\$ -	\$ -	\$ 21,296	\$ -	\$ -	\$ 21,296
Uniform & Clothing	\$ 500 To Admin	\$ -	\$ -	\$ 500	\$ -	\$ -	\$ 500
Supplies	\$ 2,600 To Admin	\$ -	\$ -	\$ 2,600	\$ -	\$ -	\$ 2,600
Professional Services	\$ 5,000 To Admin	\$ -	\$ -	\$ 5,000	\$ -	\$ -	\$ 5,000
Telephone	\$ 3,500 To Admin	\$ -	\$ -	\$ 3,500	\$ -	\$ -	\$ 3,500
Postage	\$ 500 To Admin	\$ -	\$ -	\$ 500	\$ -	\$ -	\$ 500
Travel	\$ 1,000 To Admin	\$ -	\$ -	\$ 1,000	\$ -	\$ -	\$ 1,000
Operating Leases/Rentals	\$ 2,000 To Admin	\$ -	\$ -	\$ 2,000	\$ -	\$ -	\$ 2,000
Equipment Repairs or Maintenance	\$ 3,000 To Admin	\$ -	\$ -	\$ 3,000	\$ -	\$ -	\$ 3,000
Dues & Subscriptions	\$ 2,400 To Admin	\$ -	\$ -	\$ 2,400	\$ -	\$ -	\$ 2,400
ER-Operating	\$ 2,500 To Admin	\$ -	\$ -	\$ 2,500	\$ -	\$ -	\$ 2,500
ER-Reserve	\$ 2,000 To Admin	\$ -	\$ -	\$ 2,000	\$ -	\$ -	\$ 2,000
<b>Suppression</b>							
Salaries & wages-regular	\$ 1,580,037 On Duty + Premium	\$ 973,970	\$ 533,783	\$ -	\$ -	\$ 72,284	\$ 1,580,037
Salaries & wages-OT	\$ 68,000 On Duty FTEs	\$ 43,926	\$ 24,074	\$ -	\$ -	\$ -	\$ 68,000
Benefits Budget	\$ 416,690 On Duty + Premium	\$ 256,857	\$ 140,770	\$ -	\$ -	\$ 19,063	\$ 416,690
Uniform & Clothing	\$ 18,000 On Duty FTEs	\$ 11,628	\$ 6,372	\$ -	\$ -	\$ -	\$ 18,000
Supplies	\$ 7,800 FTEs	\$ 4,457	\$ 3,343	\$ -	\$ -	\$ -	\$ 7,800
Supplies - Hazard Materials	\$ 1,500 To Fire Only	\$ -	\$ -	\$ -	\$ 1,500	\$ -	\$ 1,500
Supplies - Water	\$ 4,500 To Fire Only	\$ -	\$ -	\$ -	\$ 4,500	\$ -	\$ 4,500
Supplies - Breathing Apparatus	\$ 3,300 FTEs	\$ 1,886	\$ 1,414	\$ -	\$ -	\$ -	\$ 3,300
Supplies - Ladder	\$ 2,700 To Fire Only	\$ -	\$ -	\$ -	\$ 2,700	\$ -	\$ 2,700
Small Tools & Minor Equip	\$ 5,500 To Fire Only	\$ -	\$ -	\$ -	\$ 5,500	\$ -	\$ 5,500
Professional Services	\$ 800 To Fire Only	\$ -	\$ -	\$ -	\$ 800	\$ -	\$ 800
Postage	\$ - FTEs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment Repairs or Maintenance	\$ 3,500 FTEs	\$ 2,000	\$ 1,500	\$ -	\$ -	\$ -	\$ 3,500
Printing	\$ 200 FTEs	\$ 114	\$ 86	\$ -	\$ -	\$ -	\$ 200
Misc-Other	\$ - FTEs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ER-Operating	\$ 37,000 To Fire Only	\$ -	\$ -	\$ -	\$ 37,000	\$ -	\$ 37,000
ER-Reserve	\$ 3,000 To Fire Only	\$ -	\$ -	\$ -	\$ 3,000	\$ -	\$ 3,000
<b>Prevention/Investigation</b>							
Salaries & wages-regular	\$ 84,279 To Fire Only	\$ -	\$ -	\$ 84,279	\$ -	\$ -	\$ 84,279
Salaries & wages-OT	\$ 7,000 To Fire Only	\$ -	\$ -	\$ 7,000	\$ -	\$ -	\$ 7,000
Benefits Budget	\$ 13,150 To Fire Only	\$ -	\$ -	\$ 13,150	\$ -	\$ -	\$ 13,150
Uniform & Clothing	\$ 500 To Fire Only	\$ -	\$ -	\$ 500	\$ -	\$ -	\$ 500
Supplies	\$ 5,000 To Fire Only	\$ -	\$ -	\$ 5,000	\$ -	\$ -	\$ 5,000
Travel	\$ 1,500 To Fire Only	\$ -	\$ -	\$ 1,500	\$ -	\$ -	\$ 1,500
ER-Operating	\$ 2,500 To Fire Only	\$ -	\$ -	\$ 2,500	\$ -	\$ -	\$ 2,500
ER-Reserve	\$ 2,500 To Fire Only	\$ -	\$ -	\$ 2,500	\$ -	\$ -	\$ 2,500
<b>Facilities/Training/Misc</b>							
Supplies	\$ 8,000 To Fire Only	\$ -	\$ -	\$ 8,000	\$ -	\$ -	\$ 8,000
Professional Services	\$ 4,200 To Fire Only	\$ -	\$ -	\$ 4,200	\$ -	\$ -	\$ 4,200
Travel	\$ 6,200 To Fire Only	\$ -	\$ -	\$ 6,200	\$ -	\$ -	\$ 6,200
Registrations	\$ 6,000 To Fire Only	\$ -	\$ -	\$ 6,000	\$ -	\$ -	\$ 6,000
Insurance	\$ 3,700 Square Feet	\$ 2,740	\$ 633	\$ 327	\$ -	\$ -	\$ 3,700
Utility Services	\$ 3,300 Square Feet	\$ 2,444	\$ 564	\$ 292	\$ -	\$ -	\$ 3,300
Electricity	\$ 12,000 Square Feet	\$ 8,887	\$ 2,052	\$ 1,061	\$ -	\$ -	\$ 12,000
Building Repair or Maintenance	\$ 15,500 Square Feet	\$ 11,479	\$ 2,651	\$ 1,370	\$ -	\$ -	\$ 15,500
Equipment Repairs or Maintenance	\$ 13,000 Square Feet	\$ 9,627	\$ 2,224	\$ 1,149	\$ -	\$ -	\$ 13,000
Machinery & Equipment	\$ 2,000 Square Feet	\$ 1,481	\$ 342	\$ 177	\$ -	\$ -	\$ 2,000
<b>Budget Total</b>	<b>\$ 2,506,092</b>	<b>\$ 1,331,496</b>	<b>\$ 719,809</b>	<b>\$ 167,612</b>	<b>\$ 195,829</b>	<b>\$ 91,346</b>	<b>\$ 2,506,092</b>

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**Exhibit 4**  
**Ambulance Budget**

Line Item	Budget Allocation Method	HQ Station	Station #2	Admin	Ambulance Only	Total
<b>Administration</b>						
Salaries & Benefits	\$ 65,293 EMS Admin Split	\$ -	\$ -	\$ 16,357	\$ 48,936	\$ 65,293
Benefits Budget	\$ 22,695 EMS Admin Split	\$ -	\$ -	\$ 5,685	\$ 17,010	\$ 22,695
Supplies	\$ 7,000 To Admin	\$ -	\$ -	\$ 7,000	\$ -	\$ 7,000
Small Tools/Minor Equipment	\$ 1,500 To Admin	\$ -	\$ -	\$ 1,500	\$ -	\$ 1,500
Professional Services	\$ 1,500 To Admin	\$ -	\$ -	\$ 1,500	\$ -	\$ 1,500
Telephone	\$ 2,500 To Admin	\$ -	\$ -	\$ 2,500	\$ -	\$ 2,500
Misc. Other	\$ 12,000 To Admin	\$ -	\$ -	\$ 12,000	\$ -	\$ 12,000
<b>Operations</b>						
Salaries & wages-regular	\$ 541,764 On Duty + Premium	\$ 275,806	\$ 216,707	\$ -	\$ 49,251	\$ 541,764
Salaries & wages-OT	\$ 170,000 On Duty FTEs	\$ 95,199	\$ 74,801	\$ -	\$ -	\$ 170,000
Benefits Budget	\$ 159,684 On Duty + Premium	\$ 81,293	\$ 63,874	\$ -	\$ 14,517	\$ 159,684
Uniforms & Clothing	\$ 6,200 On Duty FTEs	\$ 3,472	\$ 2,728	\$ -	\$ -	\$ 6,200
Supplies	\$ 38,000 To Ambulance Only	\$ -	\$ -	\$ -	\$ 38,000	\$ 38,000
Small Tools/Minor Equipment	\$ 11,000 To Ambulance Only	\$ -	\$ -	\$ -	\$ 11,000	\$ 11,000
Professional Services	\$ 5,500 1/2 Admin, 1/2 Amb	\$ -	\$ -	\$ 2,750	\$ 2,750	\$ 5,500
Postage	\$ 2,000 FTEs	\$ 1,143	\$ 857	\$ -	\$ -	\$ 2,000
Travel	\$ 1,700 To Ambulance Only	\$ -	\$ -	\$ -	\$ 1,700	\$ 1,700
Repair & Maintenance	\$ 3,500 To Ambulance Only	\$ -	\$ -	\$ -	\$ 3,500	\$ 3,500
Laundry	\$ 200 FTEs	\$ 114	\$ 86	\$ -	\$ -	\$ 200
ER-Operating	\$ 38,000 To Ambulance Only	\$ -	\$ -	\$ -	\$ 38,000	\$ 38,000
ER-Reserve	\$ 80,000 To Ambulance Only	\$ -	\$ -	\$ -	\$ 80,000	\$ 80,000
Intergov't Communications	\$ 14,992 Calls by Station	\$ 12,050	\$ 2,943	\$ -	\$ -	\$ 14,992
<b>Facilities/Training/Misc</b>						
Supplies	\$ 12,000 To Ambulance Only	\$ -	\$ -	\$ -	\$ 12,000	\$ 12,000
Travel	\$ 5,500 To Ambulance Only	\$ -	\$ -	\$ -	\$ 5,500	\$ 5,500
Dues & Subscriptions	\$ 300 To Ambulance Only	\$ -	\$ -	\$ -	\$ 300	\$ 300
Registrations	\$ 10,000 To Ambulance Only	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000
Repair & Maintenance	\$ 3,500 To Ambulance Only	\$ -	\$ -	\$ -	\$ 3,500	\$ 3,500
Building Repair or Maint	\$ - Square Feet	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone (Shared Cost)	\$ 3,000 Square Feet	\$ 2,184	\$ 523	\$ 292	\$ -	\$ 3,000
Electricity (Shared Cost)	\$ 6,000 Square Feet	\$ 4,369	\$ 1,047	\$ 585	\$ -	\$ 6,000
Firefighter's (Support)	\$ 30,000 To Admin	\$ -	\$ -	\$ 30,000	\$ -	\$ 30,000
Apparatus (Support)	\$ 22,000 To Admin	\$ -	\$ -	\$ 22,000	\$ -	\$ 22,000
<b>Budget Total</b>	<b>\$ 1,277,328</b>	<b>\$ 475,630</b>	<b>\$ 363,566</b>	<b>\$ 102,169</b>	<b>\$ 335,963</b>	<b>\$ 1,277,328</b>

**Adjustments**

Firefighter's (Support)	\$ (30,000) To Admin	\$ -	\$ -	\$ (30,000)	\$ -	\$ (30,000)
Apparatus (Support)	\$ (22,000) To Admin	\$ -	\$ -	\$ (22,000)	\$ -	\$ (22,000)
<b>Adjustments Total</b>	<b>\$ (52,000)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (52,000)</b>	<b>\$ -</b>	<b>\$ (52,000)</b>

<b>Adjusted Total</b>	<b>\$ 1,225,328</b>	<b>\$ 475,630</b>	<b>\$ 363,566</b>	<b>\$ 50,169</b>	<b>\$ 335,963</b>	<b>\$ 1,225,328</b>
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AMBULANCE COST OF SERVICE AND RATE STUDY  
CITY OF ABERDEEN, WASHINGTON

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As shown in Exhibits 3 and 4, administrative costs were identified and allocated separately from the fire and the ambulance budgets. To allocate administrative costs to each station, the on-duty staffing at each station was used to allocate administrative costs. Exhibit 5 shows the allocations to each station for the administrative costs.

**Exhibit 5**  
**Administrative Cost Allocation**

Line Item	Budget	Allocation Method	HQ Station	Station #2	Total
Admin From Fire	\$ 167,612	On Duty FTEs	\$ 95,778	\$ 71,834	\$ 167,612
Admin From Ambulance	\$ 50,169	On Duty FTEs	\$ 28,668	\$ 21,501	\$ 50,169
<b>Subtotal</b>	<b>\$ 217,781</b>		<b>\$ 124,446</b>	<b>\$ 93,335</b>	<b>\$ 217,781</b>
<b>Adjusted Total Fire and Ambu</b>	<b>\$ 217,781</b>		<b>\$ 124,446</b>	<b>\$ 93,335</b>	<b>\$ 217,781</b>

Based on the allocations of the fire and the ambulance budgets, the costs associated with the Headquarters and Station 2 are \$1.9 million and \$1.2 million, respectively. Once the cost of service for each station was calculated, the station costs were then divided between fire and ambulance costs. Key assumptions and allocation factors were the following:

- To allocate the labor and some non-labor costs between fire and ambulance services, the time spent on fire and ambulance activities and incidents was used. The Department provided the total amount of time spent responding to fire and EMS incidents. The amount of response time for each station was based on the proportion of responses for each station. The amount of time spent on an incident is based on when a unit is dispatched to the time it is available again for service. Other time allocated to either fire or ambulance activities include fire and EMS training and apparatus check time. Because not all station staff respond to an EMS call, the amount of time including standby time must be adjusted. Including standby time, about 68% of the time is spent on ambulance activities, and the remaining 32% of the time is spent on fire activities. Exhibit 6 shows the amount of time spent for each activity at each station. To allocate the labor costs, weighted times were used to account for the engine assists and the two person staffing for the ambulance responses.

**Exhibit 6**  
**Fire and Ambulance Activity Time**

	HQ Station	Station #2	Total	Percentage of Total Time
<b>Fire Activities</b>				
Fire Response Time	317	92	409	
Fire Apparatus Check	365	365	730	
Fire Training	1,059	794	1,853	
<b>Total</b>	<b>1,741</b>	<b>1,251</b>	<b>2,992</b>	<b>32%</b>
 <b>Ambulance Activities</b>				
Ambulance Response Time	2,755	648	3,403	
Engine Assist Response Time	576	203	779	
Apparatus Check	365	365	730	
Training	890	667	1,557	
<b>Total</b>	<b>4,586</b>	<b>1,883</b>	<b>6,469</b>	<b>68%</b>

- The facilities costs for each station were allocated as fire and ambulance costs based on the percentage of square feet used by the fire and ambulance vehicles plus a share of the remaining space for common and living areas. The fire and ambulance shares of the common and living areas were allocated based on the percentage of square footage devoted to fire and EMS apparatus. Other costs such, as insurance, were also allocated based on the square footage for fire and ambulance vehicles.

The station allocations between fire and ambulance are shown on the following pages in Exhibits 7 and 8.

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Exhibit 7  
Headquarters Station Allocation

Line Item	HQ Station Allocation			Fire	Engine Asst.	Ambulance	Total
<b>Fire Budget</b>							
<b>Suppression</b>							
Salaries & wages-regular	\$ 973,970	Weighted Allocated Time	\$ 378,566	\$ 62,663	\$ 532,741	\$ 973,970	
Salaries & wages-OT	\$ 43,926	Weighted Allocated Time	\$ 17,073	\$ 2,826	\$ 24,027	\$ 43,926	
Benefits Budget	\$ 256,857	Weighted Allocated Time	\$ 99,836	\$ 16,526	\$ 140,495	\$ 256,857	
Uniform & Clothing	\$ 11,628	Weighted Allocated Time	\$ 4,519	\$ 748	\$ 6,360	\$ 11,628	
Supplies	\$ 4,457	Weighted Allocated Time	\$ 1,732	\$ 287	\$ 2,438	\$ 4,457	
Supplies - Hazard Materials	\$ -	To Fire	\$ -	\$ -	\$ -	\$ -	
Supplies - Water	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Supplies - Breathing Apparatus	\$ 1,886	Weighted Allocated Time	\$ 733	\$ 121	\$ 1,031	\$ 1,886	
Supplies - Ladder	\$ -	To Fire	\$ -	\$ -	\$ -	\$ -	
Small Tools & Minor Equip	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Professional Services	\$ -	To Fire	\$ -	\$ -	\$ -	\$ -	
Postage	\$ -	To Fire	\$ -	\$ -	\$ -	\$ -	
Equipment Repairs or Maintenance	\$ 2,000	Weighted Allocated Time	\$ 777	\$ 129	\$ 1,094	\$ 2,000	
Printing	\$ 114	Weighted Allocated Time	\$ 44	\$ 7	\$ 63	\$ 114	
Misc-Other	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
ER-Operating	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
ER-Reserve	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
<b>Prevention/Investigation</b>							
Salaries & wages-regular	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Salaries & wages-OT	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Benefits Budget	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Uniform & Clothing	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Supplies	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Travel	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
ER-Operating	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
ER-Reserve	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
<b>Facilities/Training/Misc</b>							
Supplies	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Professional Services	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Travel	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Registrations	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Insurance	\$ 2,740	Square Feet	\$ 1,395	\$ -	\$ 1,345	\$ 2,740	
Utility Services	\$ 2,444	Square Feet	\$ 1,244	\$ -	\$ 1,199	\$ 2,444	
Electricity	\$ 8,887	Square Feet	\$ 4,525	\$ -	\$ 4,362	\$ 8,887	
Building Repair or Maintenance	\$ 11,479	Square Feet	\$ 5,845	\$ -	\$ 5,634	\$ 11,479	
Equipment Repairs or Maintenance	\$ 9,627	Square Feet	\$ 4,902	\$ -	\$ 4,725	\$ 9,627	
Machinery & Equipment	\$ 1,481	Square Feet	\$ 754	\$ -	\$ 727	\$ 1,481	
<b>Ambulance Budget</b>							
<b>Operations</b>							
Salaries & wages-regular	\$ 275,806	Weighted Allocated Time	\$ 107,201	\$ 17,745	\$ 150,860	\$ 275,806	
Salaries & wages-OT	\$ 95,199	Weighted Allocated Time	\$ 37,002	\$ 6,125	\$ 52,072	\$ 95,199	
Benefits Budget	\$ 81,293	Weighted Allocated Time	\$ 31,597	\$ 5,230	\$ 44,466	\$ 81,293	
Uniforms & Clothing	\$ 3,472	Weighted Allocated Time	\$ 1,350	\$ 223	\$ 1,899	\$ 3,472	
Supplies	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Small Tools/Minor Equipment	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Professional Services	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Postage	\$ 1,143	Weighted Allocated Time	\$ 444	\$ 74	\$ 625	\$ 1,143	
Travel	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Repair & Maintenance	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Laundry	\$ 114	Weighted Allocated Time	\$ 44	\$ 7	\$ 63	\$ 114	
ER-Operating	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
ER-Reserve	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Intergov't Communications	\$ 12,050	Fire/EMS Call Volume Split	\$ 1,051	\$ 2,301	\$ 8,698	\$ 12,050	
<b>Facilities/Training/Misc</b>							
Supplies	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Travel	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Dues & Subscriptions	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Registrations	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Repair & Maintenance	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Building Repair or Maint	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -	
Telephone (Shared Cost)	\$ 2,184	Square Feet	\$ 1,112	\$ -	\$ 1,072	\$ 2,184	
Electricity (Shared Cost)	\$ 4,369	Square Feet	\$ 2,225	\$ -	\$ 2,144	\$ 4,369	
Firefighter's (Support)	\$ -	Square Feet	\$ -	\$ -	\$ -	\$ -	
Apparatus (Support)	\$ -	Square Feet	\$ -	\$ -	\$ -	\$ -	
<b>Total</b>	\$ 1,807,126		\$ 703,975	\$ 115,012	\$ 988,139	\$ 1,807,126	
<b>Adjustments</b>							
Admin	\$ 124,446	Weighted Allocated Time	\$ 48,370	\$ 8,007	\$ 68,069	\$ 124,446	
<b>Total</b>	\$ 124,446		\$ 48,370	\$ 8,007	\$ 68,069	\$ 124,446	
<b>Adjusted Total</b>	\$ 1,931,572		\$ 752,345	\$ 123,019	\$ 1,056,208	\$ 1,931,572	

AMBULANCE COST OF SERVICE AND RATE STUDY  
CITY OF ABERDEEN, WASHINGTON

**Exhibit 8**  
**Station #2 Allocation**

Line Item	Station # 2	Allocation	Fire	Engine Asst	Ambulance	Total
<b>Fire Budget</b>						
<b>Suppression</b>						
Salaries & wages-regular	\$ 533,783	Weighted Allocated Time	\$ 250,915	\$ 13,594	\$ 269,275	\$ 533,783
Salaries & wages-OT	\$ 24,074	Weighted Allocated Time	\$ 11,316	\$ 613	\$ 12,144	\$ 24,074
Benefits Budget	\$ 140,770	Weighted Allocated Time	\$ 66,172	\$ 3,585	\$ 71,014	\$ 140,770
Uniform & Clothing	\$ 6,372	Weighted Allocated Time	\$ 2,995	\$ 162	\$ 3,215	\$ 6,372
Supplies	\$ 3,343	Weighted Allocated Time	\$ 1,571	\$ 85	\$ 1,686	\$ 3,343
Supplies - Hazard Materials	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Supplies - Water	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Supplies - Breathing Apparatus	\$ 1,414	Weighted Allocated Time	\$ 665	\$ 36	\$ 713	\$ 1,414
Supplies - Ladder	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Small Tools & Minor Equip	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Professional Services	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Postage	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Equipment Repairs or Maintenance	\$ 1,500	Weighted Allocated Time	\$ 705	\$ 38	\$ 757	\$ 1,500
Printing	\$ 86	Weighted Allocated Time	\$ 40	\$ 2	\$ 43	\$ 86
Misc-Other	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
ER-Operating	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
ER-Reserve	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
<b>Prevention/Investigation</b>						
Salaries & wages-regular	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Salaries & wages-OT	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Benefits Budget	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Uniform & Clothing	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Supplies	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Travel	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
ER-Operating	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
ER-Reserve	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
<b>Facilities/Training/Misc</b>						
Supplies	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Professional Services	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Travel	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Registrations	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Insurance	\$ 633	Square Feet	\$ 316	\$ -	\$ 316	\$ 633
Utility Services	\$ 564	Square Feet	\$ 282	\$ -	\$ 282	\$ 564
Electricity	\$ 2,052	Square Feet	\$ 1,026	\$ -	\$ 1,026	\$ 2,052
Building Repair or Maintenance	\$ 2,651	Square Feet	\$ 1,326	\$ -	\$ 1,326	\$ 2,651
Equipment Repairs or Maintenance	\$ 2,224	Square Feet	\$ 1,112	\$ -	\$ 1,112	\$ 2,224
Machinery & Equipment	\$ 342	Square Feet	\$ 171	\$ -	\$ 171	\$ 342
<b>Ambulance Budget</b>						
<b>Operations</b>						
Salaries & wages-regular	\$ 216,707	Weighted Allocated Time	\$ 101,867	\$ 5,519	\$ 109,321	\$ 216,707
Salaries & wages-OT	\$ 74,801	Weighted Allocated Time	\$ 35,161	\$ 1,905	\$ 37,734	\$ 74,801
Benefits Budget	\$ 63,874	Weighted Allocated Time	\$ 30,025	\$ 1,627	\$ 32,222	\$ 63,874
Uniforms & Clothing	\$ 2,728	Weighted Allocated Time	\$ 1,282	\$ 69	\$ 1,376	\$ 2,728
Supplies	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Small Tools/Minor Equipment	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Professional Services	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Postage	\$ 857	Weighted Allocated Time	\$ 403	\$ 22	\$ 432	\$ 857
Travel	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Repair & Maintenance	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Laundry	\$ 86	Weighted Allocated Time	\$ 40	\$ 2	\$ 43	\$ 86
ER-Operating	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
ER-Reserve	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Intergov't Communications	\$ 2,943	Fire/EMS Call Volume Split	\$ 357	\$ 812	\$ 1,774	\$ 2,943
<b>Facilities/Training/Misc</b>						
Supplies	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Travel	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Dues & Subscriptions	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Registrations	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Repair & Maintenance	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Building Repair or Maint	\$ -	Weighted Allocated Time	\$ -	\$ -	\$ -	\$ -
Telephone (Shared Cost)	\$ 523	Square Feet	\$ 262	\$ -	\$ 262	\$ 523
Electricity (Shared Cost)	\$ 1,047	Square Feet	\$ 523	\$ -	\$ 523	\$ 1,047
Firefighter's (Support)	\$ -	Square Feet	\$ -	\$ -	\$ -	\$ -
Apparatus (Support)	\$ -	Square Feet	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 1,083,374</b>		<b>\$ 508,534</b>	<b>\$ 28,071</b>	<b>\$ 546,770</b>	<b>\$ 1,083,374</b>
<b>Adjustments</b>						
Administration	\$ 93,335	Weighted Allocated Time	\$ 43,874	\$ 2,377	\$ 47,084	\$ 93,335
<b>Total</b>	<b>\$ 93,335</b>		<b>\$ 43,874</b>	<b>\$ 2,377</b>	<b>\$ 47,084</b>	<b>\$ 93,335</b>
<b>Adjusted Total</b>	<b>\$ 1,176,709</b>		<b>\$ 552,408</b>	<b>\$ 30,448</b>	<b>\$ 593,854</b>	<b>\$ 1,176,709</b>

Once the ambulance costs for each station were identified, the costs were then divided between availability and demand costs. According to RCW 35.21.766, availability costs are attributable to the basic infrastructure needed to respond to a single call for service and may include dispatch, labor, training, equipment, patient care supplies, and equipment maintenance costs, while demand costs are attributable to the burden placed on the ambulance service by individual calls, such as those associated with the frequency of calls or the distance from hospitals. Exhibit 9 shows that demand costs were \$678,897, while availability costs totaled \$1,551,942.

To determine availability and demand costs, the following assumptions and factors were used:

- To allocate the labor costs associated with demand, an availability/demand ratio was calculated. Demand costs are based on the amount of time that the ambulances are responding to calls for service and performing ambulance apparatus checks, while availability time is the amount of time spent for standby and EMS training. The ratio is based on the weighted times because of the two person ambulance responses and the engine assist responses which includes the other station staff. The demand time represented about 23% the total ambulance time. The operating costs for the ambulances were also based on the availability/demand ratio.
- Overtime in the ambulance budget is allocated only to the demand costs because overtime is used to provide the scheduled transports for inter-facility transfers.
- In addition to the time and vehicle costs incurred while responding to EMS incidents, other demand costs included the, supplies, and the staffing costs for performing the direct billing of the patients.
- Availability costs included all the other costs not directly associated with the Department's responses.

Exhibit 9 shows how the ambulance costs were allocated between availability and demand.

AMBULANCE COST OF SERVICE AND RATE STUDY  
CITY OF ABERDEEN, WASHINGTON

Exhibit 9  
Ambulance Cost of Service

Line Item	HQ Station	Station 2	Ambulance	Total Ambulance	Allocation	Total Availability	Total Demand	Total
<b>Fire Budget</b>								
<b>Suppression</b>								
Salaries & wages-regular	\$ 595,404	\$ 282,869	\$ 72,284	\$ 950,556	Availability Demand Ratio	\$ 727,696	\$ 222,860	\$ 950,556
Salaries & wages-OT	\$ 26,853	\$ 12,757	\$ -	\$ 39,610	All to Demand	\$ -	\$ 39,610	\$ 39,610
Benefits Budget	\$ 157,021	\$ 74,599	\$ 19,063	\$ 250,682	Availability Demand Ratio	\$ 191,909	\$ 58,773	\$ 250,682
Uniform & Clothing	\$ 7,108	\$ 3,377	\$ -	\$ 10,485	Availability Demand Ratio	\$ 8,027	\$ 2,458	\$ 10,485
Supplies	\$ 2,725	\$ 1,771	\$ -	\$ 4,496	All to Availability	\$ 4,496	\$ -	\$ 4,496
Supplies - Hazard Materials	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Supplies - Water	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Supplies - Breathing Apparatus	\$ 1,153	\$ 749	\$ -	\$ 1,902	All to Availability	\$ 1,902	\$ -	\$ 1,902
Supplies - Ladder	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Small Tools & Minor Equip	\$ -	\$ -	\$ -	\$ -	All to Availability	\$ -	\$ -	\$ -
Professional Services	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Postage	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Equipment Repairs or Maintenance	\$ 1,223	\$ 795	\$ -	\$ 2,018	All to Availability	\$ 2,018	\$ -	\$ 2,018
Printing	\$ 70	\$ 45	\$ -	\$ 115	All to Availability	\$ 115	\$ -	\$ 115
Misc-Other	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
ER-Operating	\$ -	\$ -	\$ -	\$ -	All to Demand	\$ -	\$ -	\$ -
ER-Reserve	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
<b>Facilities/Training/Misc</b>								
Supplies	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Professional Services	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Registrations	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Insurance	\$ 1,345	\$ 316	\$ -	\$ 1,661	All to Availability	\$ 1,661	\$ -	\$ 1,661
Utility Services	\$ 1,199	\$ 282	\$ -	\$ 1,482	All to Availability	\$ 1,482	\$ -	\$ 1,482
Electricity	\$ 4,362	\$ 1,026	\$ -	\$ 5,388	All to Availability	\$ 5,388	\$ -	\$ 5,388
Building Repair or Maintenance	\$ 5,634	\$ 1,326	\$ -	\$ 6,959	All to Availability	\$ 6,959	\$ -	\$ 6,959
Equipment Repairs or Maintenance	\$ 4,725	\$ 1,112	\$ -	\$ 5,837	All to Availability	\$ 5,837	\$ -	\$ 5,837
Machinery & Equipment	\$ 727	\$ 171	\$ -	\$ 898	All to Availability	\$ 898	\$ -	\$ 898
<b>Ambulance Budget</b>								
Salaries & Benefits	\$ -	\$ -	\$ 48,936	\$ 48,936	All to Demand	\$ -	\$ 48,936	\$ 48,936
Benefits Budget	\$ -	\$ -	\$ 17,010	\$ 17,010	All to Demand	\$ -	\$ 17,010	\$ 17,010
Supplies	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Small Tools/Minor Equipment	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Professional Services	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Telephone	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Misc. Other	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
<b>Operations</b>								
Salaries & wages-regular	\$ 168,604	\$ 114,840	\$ 49,251	\$ 332,696	Availability Demand Ratio	\$ 254,694	\$ 78,001	\$ 332,696
Salaries & wages-OT	\$ 58,197	\$ 39,639	\$ -	\$ 97,836	All to Demand	\$ -	\$ 97,836	\$ 97,836
Benefits Budget	\$ 49,696	\$ 33,849	\$ 14,517	\$ 98,061	Availability Demand Ratio	\$ 75,071	\$ 22,991	\$ 98,061
Uniforms & Clothing	\$ 2,122	\$ 1,446	\$ -	\$ 3,568	Availability Demand Ratio	\$ 2,732	\$ 837	\$ 3,568
Supplies	\$ -	\$ -	\$ 38,000	\$ 38,000	All to Demand	\$ -	\$ 38,000	\$ 38,000
Small Tools/Minor Equipment	\$ -	\$ -	\$ 11,000	\$ 11,000	All to Availability	\$ 11,000	\$ -	\$ 11,000
Professional Services	\$ -	\$ -	\$ 2,750	\$ 2,750	All to Availability	\$ 2,750	\$ -	\$ 2,750
Postage	\$ 699	\$ 454	\$ -	\$ 1,153	All to Availability	\$ 1,153	\$ -	\$ 1,153
Travel	\$ -	\$ -	\$ 1,700	\$ 1,700	All to Availability	\$ 1,700	\$ -	\$ 1,700
Repair & Maintenance	\$ -	\$ -	\$ 3,500	\$ 3,500	All to Availability	\$ 3,500	\$ -	\$ 3,500
Laundry	\$ 70	\$ 45	\$ -	\$ 115	All to Availability	\$ 115	\$ -	\$ 115
ER-Operating	\$ -	\$ -	\$ 38,000	\$ 38,000	All to Demand	\$ -	\$ 38,000	\$ 38,000
ER-Reserve	\$ -	\$ -	\$ 80,000	\$ 80,000	All to Availability	\$ 80,000	\$ -	\$ 80,000
Intergov't Communications	\$ 10,999	\$ 2,586	\$ -	\$ 13,585	All to Demand	\$ -	\$ 13,585	\$ 13,585
<b>Facilities/Training/Misc</b>								
Supplies	\$ -	\$ -	\$ 12,000	\$ 12,000	All to Availability	\$ 12,000	\$ -	\$ 12,000
Travel	\$ -	\$ -	\$ 5,500	\$ 5,500	All to Availability	\$ 5,500	\$ -	\$ 5,500
Dues & Subscriptions	\$ -	\$ -	\$ 300	\$ 300	All to Availability	\$ 300	\$ -	\$ 300
Registrations	\$ -	\$ -	\$ 10,000	\$ 10,000	All to Availability	\$ 10,000	\$ -	\$ 10,000
Repair & Maintenance	\$ -	\$ -	\$ 3,500	\$ 3,500	All to Availability	\$ 3,500	\$ -	\$ 3,500
Building Repair or Maint	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
Telephone (Shared Cost)	\$ 1,072	\$ 262	\$ -	\$ 1,334	All to Availability	\$ 1,334	\$ -	\$ 1,334
Electricity (Shared Cost)	\$ 2,144	\$ 523	\$ -	\$ 2,668	All to Availability	\$ 2,668	\$ -	\$ 2,668
Firefighter's (Support)	\$ -	\$ -	\$ -	\$ -	All to Availability	\$ -	\$ -	\$ -
Apparatus (Support)	\$ -	\$ -	\$ -	\$ -	All to Availability	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 1,103,151</b>	<b>\$ 574,840</b>	<b>\$ 427,310</b>	<b>\$ 2,105,302</b>		<b>\$ 1,426,405</b>	<b>\$ 678,897</b>	<b>\$ 2,105,302</b>

Other Adjustments

Line Item	HQ Station	Station 2	Ambulance	Total Ambulance	Allocation	Availability	Demand	Total
Admin	\$ 76,076	\$ 49,461	\$ -	\$ 125,537	All to Availability	\$ 125,537	\$ -	\$ 125,537
Facilities	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 76,076</b>	<b>\$ 49,461</b>	<b>\$ -</b>	<b>\$ 125,537</b>		<b>\$ 125,537</b>	<b>\$ -</b>	<b>\$ 125,537</b>

Adjusted Total

<b>Total</b>	<b>\$ 1,179,227</b>	<b>\$ 624,302</b>	<b>\$ 427,310</b>	<b>\$ 2,230,839</b>		<b>\$ 1,551,942</b>	<b>\$ 678,897</b>	<b>\$ 2,230,839</b>
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### III. RATE ANALYSIS

Once the availability and demand costs were identified, the next step was to determine the availability and demand rates. RCW 35.21.766 establishes the following rate policies.

- Availability costs must be uniformly applied across user classifications,
- Demand costs must be based on each user classification's burden on the utility,
- The costs for exemptions or reductions are a general expense of the utility and are designated as an availability cost to be spread uniformly across the utility user classifications,
- Medicaid eligible persons who reside in a nursing home, boarding home, or adult family home, or who receive in-home services are exempt, and
- Designated classes consistent with Article VIII, section 7 of the state Constitution may be exempt from or have reduced rates.

To calculate the rates, the City first established several different customer classes and identified the number of billing units in each class. Exhibit 10 shows the customer classes and the type of regular and Medicaid billing units. The City obtained the number of Medicaid eligible persons by contacting the various assisted living and nursing home operators, the Housing Authority, and a home health care agency.

**Exhibit 10**  
**Number of Billing Units by Customer Class and Type of Unit**

Customer Class	Percent of Regular Accounts		Percent of Medicaid Accounts		Total Accounts	Percent of Total Accounts
	Regular	Medicaid	Medicaid	Accounts		
Single Family	4,948	65%	21	8%	4,969	63%
Multi Family	1,859	24%	0	0%	1,859	23%
Commercial / Retail	576	8%	0	0%	576	7%
Industrial	25	0%	0	0%	25	0%
Assisted Living / Nursing Homes	64	1%	78	31%	142	2%
Housing Authority	166	2%	149	60%	315	4%
Other Governments	28	0%	0	0%	28	0%
City of Aberdeen	1	0%	0	0%	1	0%
<b>Total</b>	<b>7,667</b>	<b>100%</b>	<b>248</b>	<b>100%</b>	<b>7,915</b>	<b>100%</b>

In addition to the number of billing units, the number of responses by class was calculated by using the Department's 2005 response data and reports. Exhibit 11 shows the number of responses by customer class, and some of the figures are based on the following:

- Because the Department does not have data on what responses involved Medicaid eligible persons, the Medicaid responses for each class are based on the proportion of the Medicaid accounts to the total accounts for the specific class,

- The City of Aberdeen includes responses to City facilities and responses on City streets and State highways, and
- Fire district and the City of Cosmopolis responses were not included. Fire districts and Cosmopolis have separate inter-local agreements that pay for their ambulance services.

**Exhibit 11**  
**Number of Responses by Customer Class and Type of Unit**

Customer Class	Regular	Percentage of Regular Calls	Medicaid Calls	Percentage of Medicaid Calls	Total	Percentage of Total Calls
Single Family	1,115	30%	5	2%	1,120	28%
Multi Family	561	15%	-	0%	561	14%
Commercial / Retail	1,204	32%	-	0%	1,204	30%
Industrial	11	0%	-	0%	11	0%
Assisted Living / Nursing Homes	308	8%	169	62%	477	12%
Housing Authority	206	6%	97	36%	303	8%
Other Governments	59	2%	-	0%	59	1%
City of Aberdeen	279	7%	-	0%	279	7%
<b>Total</b>	<b>3,743</b>	<b>100%</b>	<b>271</b>	<b>100%</b>	<b>4,014</b>	<b>100%</b>

To calculate the amount of revenue needed from rates, RCW 35.21.766 requires that other revenues such as ambulance charges, grants, and contract fees be subtracted from the revenue needed. Based on the City's 2006 ambulance budget and revised estimates, these estimated revenues for the ambulance fund totaled \$1.2 million. The revenue (\$1.1 million) from the charges to individual users must be applied to the demand related costs. Exhibit 12 shows these revenues and the net availability and demand costs that will be recovered from the rates.

**Exhibit 12**  
**Adjusted Availability and Demand Costs**

	Availability	Demand	Total
<b>Ambulance Utility Costs</b>	\$ 1,551,942	\$ 678,897	\$ 2,230,839
<b>Adjustments</b>	<b>Availability</b>	<b>Demand</b>	<b>Total</b>
Billing & Collections on Calls	\$ -	\$ (1,104,471)	\$ (1,104,471)
DOH Grant	\$ (1,463)	\$ -	\$ (1,463)
Local Transit Grant	\$ (3,574)	\$ -	\$ (3,574)
Local Training Grant	\$ (790)	\$ -	\$ (790)
Investment Interest	\$ (3,763)	\$ -	\$ (3,763)
Other Misc Revenues	\$ (257)	\$ -	\$ (257)
Ambulance Charges	\$ (89,856)	\$ -	\$ (89,856)
<b>Adjusted Costs</b>	<b>\$ 1,452,239</b>	<b>\$ (425,574)</b>	<b>\$ 1,026,665</b>

Because the estimated ambulance fees are greater than the demand costs, the remaining \$425,574 in revenue is used to offset some of the availability costs. As a result, the net availability costs to be supported by rates total \$1,026,665. The RCW requires that availability costs be spread uniformly, and because the Medicaid billing units are exempt from the rates, the costs for each class include a share of the amount that would be owed by Medicaid patients. Based on the number of regular billing units in each class, the following exhibit shows how those costs were allocated to each customer class.

**Exhibit 13**  
**Adjusted Availability Costs by Customer Class**

Customer Class	Availability		Demand		Total
	Regular Accounts		Regular Accounts		
Single Family	\$ 662,572	\$ -	\$ -	\$ -	\$ 662,572
Multi Family	\$ 248,933	\$ -	\$ -	\$ -	\$ 248,933
Commercial / Retail	\$ 77,130	\$ -	\$ -	\$ -	\$ 77,130
Industrial	\$ 3,348	\$ -	\$ -	\$ -	\$ 3,348
Assisted Living / Nursing Homes	\$ 8,570	\$ -	\$ -	\$ -	\$ 8,570
Housing Authority	\$ 22,229	\$ -	\$ -	\$ -	\$ 22,229
Other Governments	\$ 3,749	\$ -	\$ -	\$ -	\$ 3,749
City of Aberdeen	\$ 134	\$ -	\$ -	\$ -	\$ 134
<b>Total</b>	<b>\$ 1,026,665</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,026,665</b>

Based on the amounts in Exhibit 13, the rates calculated for each billing unit in a customer class are shown in Exhibit 14.

**Exhibit 14**  
**Adjusted Availability Rates by Customer Class**

Customer Class	Total Availability	Annual Rate
Single Family	\$ 662,572	\$ 133.91
Multi Family	\$ 248,933	\$ 133.91
Commercial / Retail	\$ 77,130	\$ 133.91
Industrial	\$ 3,348	\$ 133.91
Assisted Living / Nursing Homes	\$ 8,570	\$ 133.91
Housing Authority	\$ 22,229	\$ 133.91
Other Governments	\$ 3,749	\$ 133.91
City of Aberdeen	\$ 134	\$ 133.91
<b>Total</b>	<b>\$ 1,026,665</b>	

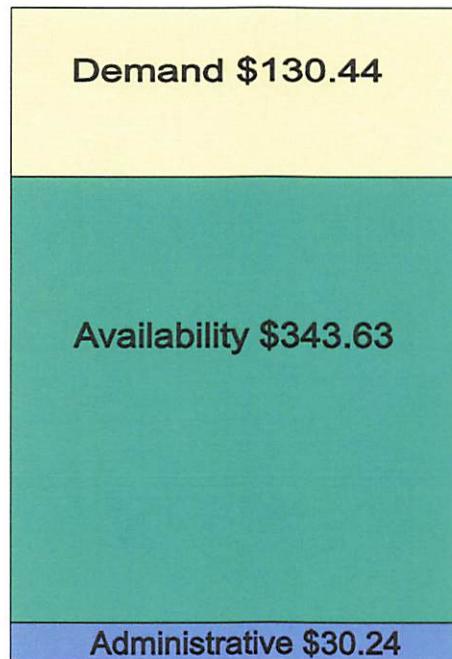
Based on the various allocations and adjustments of the City's fire and ambulance budgets, the ambulance rate for each billing unit is about \$134 annually or \$11.16 per month.

**Cost Per Response**

Based on the cost of service, the cost per ambulance response was also identified. To calculate the cost per response, the total costs for ambulance services were adjusted to exclude the costs of scheduled transports. According to the Department, the scheduled transports are performed by staff on overtime. The cost of service without the overtime was divided by the total responses for 2005, including those responses to other jurisdictions served by contract. The total cost per response is \$504.31, and Exhibit 15 shows a breakdown of that cost.

**Exhibit 15**  
**Cost per Ambulance Response**

Total Cost Per Response\*  
\$504.31



\* Does not include scheduled transports and the overtime costs associated with those transports

The above cost per response can be used to establish the ambulance charge or to determine the cost of service to other jurisdictions.

#### IV. IMPLEMENTATION ISSUES

During the cost of service study, a number of implementation issues were identified during the data gathering and cost analysis. Based on the legislation and the process needed to calculate the rates, there are several steps that the City and the Fire Department can take to assure that the needed data is collected and used in subsequent ambulance cost of service and rate studies. These steps are the following:

- Because the cost of Medicaid patients must be identified separately and then absorbed as an availability cost, the City may need to establish a process to identify the number of Medicaid billing units in each customer class and the number of responses in each class related to Medicaid patients.
- The Fire Department's response data should be kept in sufficient detail to identify the number of responses for each customer class and Medicaid patients.
- The City might consider using data that is more consistent with the budget process. Instead of using data from the prior calendar year to allocate costs for the next budget year, the City may want to use data that more closely coincides with the budget process. The data period could be from July 1 in the previous year to June 30 in the current year. The cost of service, rates, and the fire and ambulance budgets for next year would then be developed in July and August.

If the City can implement the above steps, the City and the Fire Department might be able to save some time and effort in updating future cost of service and rate studies.