



**KING COUNTY**

1200 King County Courthouse  
516 Third Avenue  
Seattle, WA 98104

**Signature Report**

**May 6, 2013**

**Ordinance 17578**

**Proposed No.** 2013-0016.2

**Sponsors** Lambert, von Reichbauer and Dunn

1 AN ORDINANCE authorizing the approval of the Medic  
2 One/Emergency Medical Services 2014-2019 Strategic  
3 Plan.

4 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

5 SECTION 1. Findings:

6 A. Emergency medical services are among the most important services provided  
7 to county residents. These services include basic and advanced life support, regional  
8 medical control and quality improvement, emergency medical technician training,  
9 emergency medical dispatch training, cardiopulmonary resuscitation and defibrillation  
10 training, paramedic continuing education, injury prevention education and related  
11 services. In combination, these programs have made the emergency medical services  
12 network in King County an invaluable lifesaving effort and an important part of the  
13 quality of life standards afforded residents of the county.

14 B. The Medic One/emergency medical services system in King County is  
15 recognized as one of the best emergency medical services program in the country. With  
16 an international reputation for innovation and excellence, it offers uniform medical care  
17 regardless of location, incident circumstances, day of the week or time of day.

18 C. The King County regional system has measurable among the finest of medical  
19 outcomes in the world for out-of-hospital cardiac arrest. In 2011, Seattle and King

20 County achieved a fifty-two-percent survival rate for cardiac arrest, which is the highest  
21 rate to date anywhere.

22 D. The system's success can be traced to its unique design that is built upon the  
23 following components:

24 1. Regional, collaborative, crossjurisdictional and coordinated partnerships that  
25 allow for "seamless" operations;

26 2. Emergency medical services that are derived from the highest standards of  
27 medical training, practices and care, scientific evidence and close supervision by  
28 physicians experienced in emergency medical services care;

29 3. Programmatic leadership and state of the art science-based strategies that  
30 allow the system to obtain superior medical outcomes and meet its own needs and  
31 expectations, as well as of those of its residents;

32 4. Sustained regional focus on operational and financial efficiencies that have  
33 led to the system's financial viability and stability, even throughout the economic  
34 recession; and

35 5. Support by levy funds that make the services it provides less vulnerable,  
36 though not immune, to fluctuations in the economy.

37 E. King County should continue to exercise leadership and assume responsibility  
38 for assuring the consistent, standardized, effective and cost efficient development and  
39 provision of emergency services throughout the county.

40 F. The emergency medical services advisory task force was developed via King  
41 County Ordinance 15862 to "ensure continued emergency medical service for King

42 County by reviewing issues and options and by developing recommendations for the next  
43 strategic plan."

44 G. Beginning in October 2011, the emergency medical services advisory task  
45 force worked collaboratively with emergency medical services stakeholders to assess the  
46 needs of the system and develop programmatic and financial recommendations that  
47 ensure the integrity of the world-class Medic One/ emergency medical services system is  
48 maintained. On July 26, 2012, the emergency medical services advisory task force  
49 endorsed its Programmatic Needs Recommendations, which became the foundation of  
50 the Medic One/Emergency Medical Services 2014-2019 Strategic Plan.

51 H. The Medic One/Emergency Medical Services 2014-2019 Strategic Plan  
52 outlines how the region will execute the operational and financial recommendations that  
53 the emergency medical services advisory task force endorsed on July 26, 2012. It is the  
54 primary policy and financial document that directs the emergency medical services  
55 network into the future.

56 I. The policies embedded within the Medic One/Emergency Medical Services  
57 2014-2019 Strategic Plan ensure that the emergency medical services system in King  
58 County: remains an adequately funded, regional tiered system; reflects the existing  
59 successful medical model; and continues to provide state of the art science-based  
60 strategies, programs and leadership.

61 SECTION 2. The council hereby accepts and approves the Medic  
62 One/Emergency Medical Services 2014-2019 Strategic Plan, dated January 2013, which  
63 is Attachment A to this ordinance. The recommendations contained in the Medic  
64 One/Emergency Medical Services 2014-2019 Strategic Plan shall inform and update the

---

65 provision of emergency medical services in King County during the aforementioned time  
66 period.  
67

Ordinance 17578 was introduced on 1/14/2013 and passed by the Metropolitan King County Council on 5/6/2013, by the following vote:

Yes: 8 - Mr. Phillips, Mr. von Reichbauer, Mr. Gossett, Ms. Hague,  
Ms. Patterson, Mr. Dunn, Mr. McDermott and Mr. Dembowski  
No: 0  
Excused: 1 - Ms. Lambert

KING COUNTY COUNCIL  
KING COUNTY, WASHINGTON



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Larry Gossett, Chair

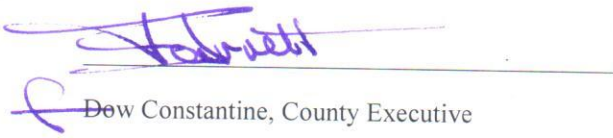
ATTEST:



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Anne Noris, Clerk of the Council

APPROVED this 16 day of May, 2013.



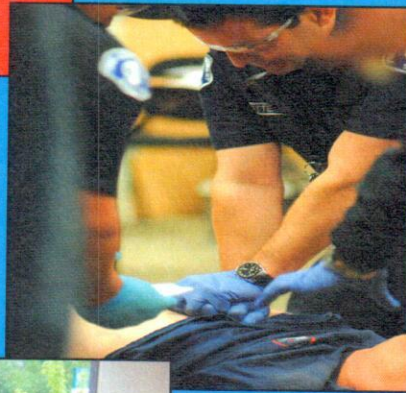
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Dow Constantine, County Executive

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2013 MAY 16 PM 3:41  
CLERK  
KING COUNTY COUNCIL

**Attachments:** A. 2014-2019 Strategic Plan dated April 10, 2013

# Medic One/Emergency Medical Services 2014-2019 Strategic Plan



**April 10, 2013**

Public Health - Seattle & King County  
 **Division of  
Emergency Medical Services**

Public Health   
Seattle & King County



If you have questions about the Medic One/EMS 2014-2019 levy reauthorization process or Strategic Plan, please contact:

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## Acknowledgements

The EMS system in King County has a long history of collaboration, and this Medic One/EMS 2014-2019 levy planning process was no exception. The EMS Division would like to thank the numerous participants who so willingly gave their time and expertise to assist in the development of the Medic One/EMS 2014-2019 Strategic Plan.

### EMS Advisory Task Force

Representing those who oversee, authorize and are served by the system, the EMS Advisory Task Force was invaluable in crafting the right proposal, and determining the financial implications it may have for its individual jurisdictions. We appreciate your commitment to this undertaking.

Name	Organization	Representation Category
Fred Jarrett	Deputy County Executive Steering Committee, Task Force Chair	King County Executive
Tom Agnew	Councilmember, City of Bothell	Cities under 50,000 in population
Dave Asher	Councilmember, City of Kirkland	Cities over 50,000 in population
Don Davidson	Councilmember, City of Bellevue	Cities over 50,000 in population
Gregory Dean	Fire Chief, Seattle Fire Department Steering Committee, ALS Subcommittee Chair	Pro-tem participant for Seattle (Cities over 50,000 in population)
Bob Ferguson	Councilmember, King County	King County Council
Craig Goodwin	Councilmember, City of Black Diamond	Cities under 50,000 in population
Jim Haggerton	Mayor, City of Tukwila Steering Committee, Regional Services Subcommittee Chair	Cities under 50,000 in population
Ken Hearing	Mayor, City of North Bend	Cities under 50,000 in population
Jon Kennison	Fire Commissioner	Shoreline Fire Department
Linda Kochmar	Councilmember, City of Federal Way	Cities over 50,000 in population
Kathy Lambert	Councilmember, King County	King County Council
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Pete Lewis	Mayor, City of Auburn	Cities over 50,000 in population
John Marchione	Mayor, City of Redmond Steering Committee, Finance Subcommittee Chair	Cities over 50,000 in population
Michael McGinn	Mayor, City of Seattle	Cities over 50,000 in population
Keith McGlashan	Mayor, City of Shoreline	Cities over 50,000 in population
John Rickert	Fire Commissioner	South King Fire & Rescue
Jim Schneider	Fire Chief, Kent Fire & Life Safety	Cities over 50,000 in population
Rex Stratton	Fire Commissioner	Vashon Island Fire & Rescue

## Levy Planning Process Partners

The Medic One/EMS system in King County relies on numerous departments to provide rapid response to 9-1-1 requests for medical assistance. We would like to thank the Task Force and Subcommittee meeting participants and attendees for their commitment to this past levy planning process:

Michael Ayala (Port of Seattle Fire Department)	Karen Goroski (Suburban Cities Association)
Susan Baugh (King County Auditor)	Dr. Andreas Grabinsky (Harborview Medical Center)
Bob Berschauer (AMR)	Chuck Heitz (Bellevue Fire Department)
Mark Brownell (Vashon Medic One)	Dave Hennes (City of Seattle)
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Nitin Chadha (Woodinville Fire & Rescue)	Dave Jones (Shoreline Fire Department)
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Katherine Cortes (King County Office of Performance, Strategy and Budget)	David Lawson (South King Fire & Rescue)
Wayne Corey (South King Fire & Rescue)	Hank Lipe (Vashon Fire & Rescue)
Matt Cowan (Maple Valley Fire Department)	Scott MacColl (City of Shoreline)
David Crossen (KCFD 20)	Diane MaKaeli (KCFD #20)
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Mike Gerber (Valley Regional Fire Authority)	Bill Newbold (Redmond Medic One)
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## EXECUTIVE SUMMARY

The Medic One/EMS system provides essential life-saving services to the residents of, and visitors to, King County. With an international reputation for innovation and excellence, it offers uniform medical care regardless of location, incident circumstances, day of the week or time of day. It is recognized as one of the best emergency medical services program in the country, and is acclaimed for its patient outcomes, including the highest reported survival rates in the treatment of out-of-hospital cardiac arrest patients across the nation.

The Medic One/EMS system is funded with a six-year EMS levy that is scheduled to expire December 31, 2013. To ensure continued emergency medical services in 2014 and beyond, a new Strategic Plan that defined the roles, responsibilities and programs provided by the system, and a levy rate to fund these services, needed to be developed. King County Ordinances 15862 and 17145 created and reformulated an EMS Advisory Task Force to develop "interjurisdictional agreement on an updated EMS strategic plan and financing package for the next levy funding period." Comprised of leaders and decision makers from throughout the region, the Task Force worked collaboratively with EMS Stakeholders for nine months to assess the needs of the system and develop recommendations to direct the system into the future.

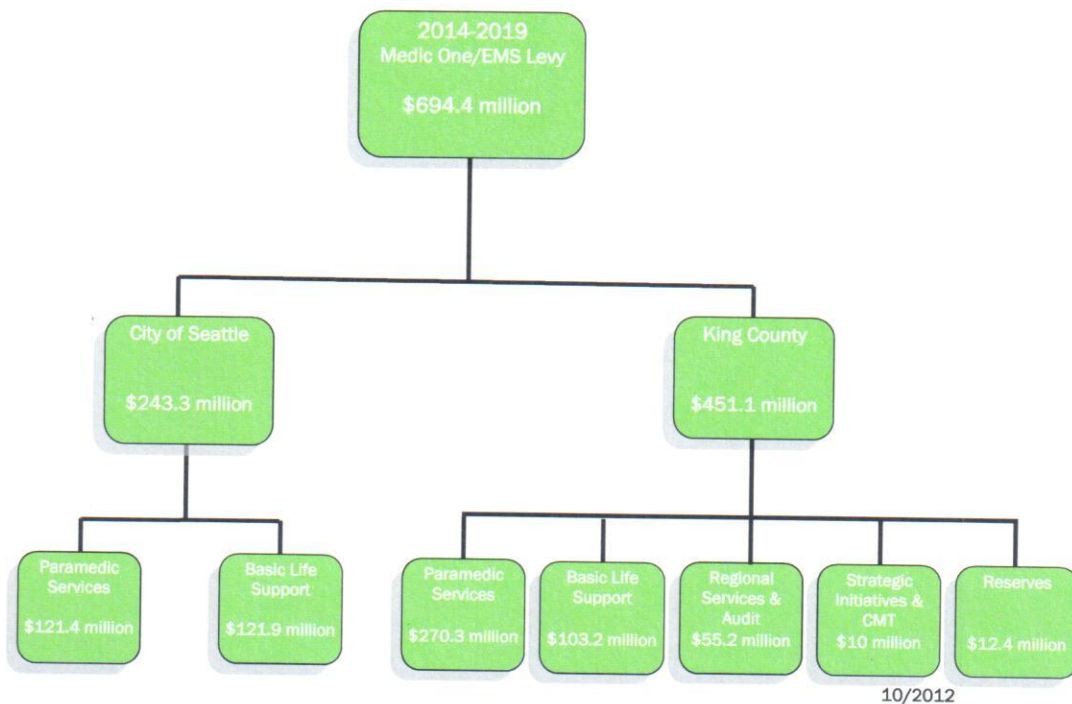
On July 26, 2012, the EMS Advisory Task Force endorsed the Programmatic Needs Recommendations that form the foundation of the 2014-2019 Strategic Plan. The Strategic Plan outlines how the operational and financial recommendations that were developed collectively by the region will be executed to ensure that the integrity of the world-class Medic One/EMS system is maintained.

Specifically, the Strategic Plan endorses:

- Maintaining the current number of medic units and not adding any new units over the span of the next levy period;
- Fully funding eligible Advanced Life Support (referred to as ALS, or paramedic) costs;
- Continuing the contribution to support Basic Life Support (referred to as BLS, or "first responders");
- Programs that specifically address BLS demand and support BLS's role in regional decision-making;
- Programs that provide essential support to the system and encourage efficiencies, innovation and leadership;
- Conservative financial policies and procedures that lend to financial stability, such as reserve and inflator policies, and the use of a 65% confidence level for projecting tax revenues;
- Responsible level of reserves for unanticipated costs;
- Funding the system with renewal of a six-year EMS levy;
- Budget of \$695 million over six years to maintain current level of service and meet future demands;
- Levy rate of 33.5 cents/\$1,000 Assessed Valuation (AV); and
- Placement of the levy on the ballot in 2013 at either the primary or general election.

***The result of this productive regional discussion is a Medic One/EMS levy proposal that increases services at a funding level that is lower than the cost of continuing the current six-year funding level with inflation.***

The proposed levy rate of 33.5 cents/\$1,000 AV means that the average homeowner will pay approximately \$107 a year in 2014 for highly trained medical personnel to arrive within minutes of an emergency, any time of day or night, no matter where in King County - this is \$3 less than the average homeowner paid in 2008 for these same services. Credit for keeping costs down while preserving this most acclaimed services can be attributed to the EMS system's continued focus on operational and financial efficiencies.



The Medic One/EMS 2014-2019 Strategic Plan meets King County's mission and guiding principles of providing fiscally responsible, quality driven local and regional services, and requiring accountability, innovation, professionalism and results. The proposals incorporated within the Plan supports the Medic One/EMS system's own strong tradition of service excellence, effective leadership and regional collaboration. The well-balanced approach will allow the system to meet the needs and expectations of residents, now and in the future.

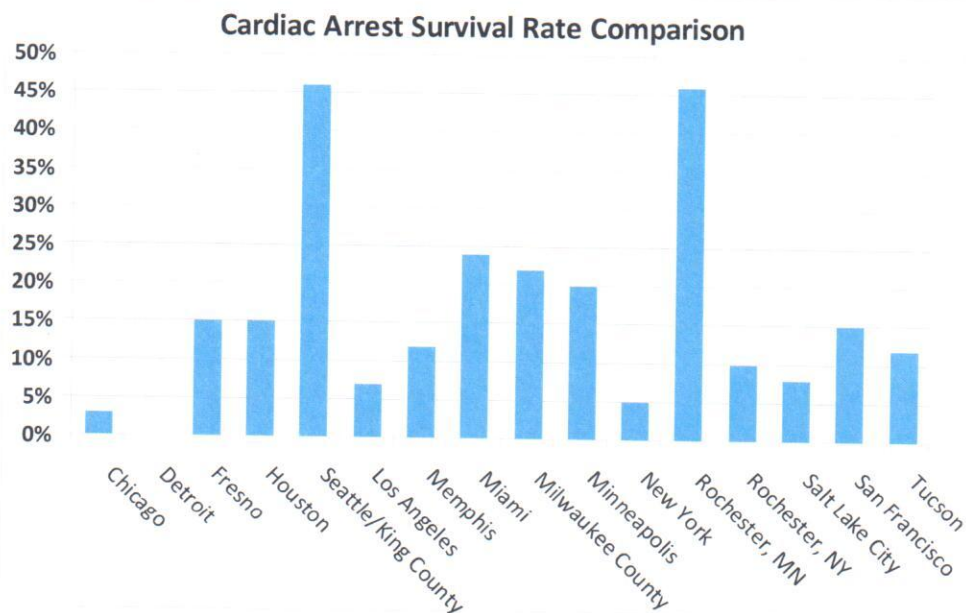
For over 30 years, the region has worked together to create a system with patient outcomes that people from all corners of the world seek to replicate. This speaks to the strength of its partnerships, and the ability for King County jurisdictions to collectively recognize these regional benefits and consider needs beyond their local boundaries and interests. The expertise shared and efforts expended by our partners during this levy planning process were constant reminders of exactly why the King County regional system continues to succeed and serve as an international model.

## MEDIC ONE/EMS SYSTEM OVERVIEW

### KEY COMPONENTS OF THE SYSTEM

The Medic One/EMS system in King County is known worldwide for its service excellence, leadership, and most importantly, its medical results - it has measurably among the finest of medical outcomes in the world for out-of-hospital cardiac arrest. In 2011, Seattle & King County achieved a 52% survival rate for cardiac arrest, the highest rate to date anywhere. Since most survival rates in the nation hover around 10%, this is a crowning achievement.

The optimal standardized outcome measure for assessing EMS systems is survival from cardiac arrest. This is due to the discrete nature of a cardiac arrest: a patient has stopped breathing and their heart is not pumping. Whether a patient is discharged alive following a cardiac arrest is identifiable and measurable, and thus easily comparable. A chart published in 2009 illustrates the differences between systems. Please note that the King County rate has increased to 52% since this chart was developed.



Comparative survival rates, by percentage, for ventricular fibrillation across communities.  
Eisenberg, Mickey. Resuscitate! How Your Community Can Improve Survival from Sudden Cardiac Arrest.  
Seattle: University of Washington Press, 2009.

The system's success can be traced to its design, which is based on the following:

### **Regional System Built on Partnerships**

The Medic One/EMS system is built on partnerships that are rooted in regional, collaborative and cross-jurisdictional coordination – while each agency operates individually, the care provided to the patient operates within a “seamless” system. It is this continuum of consistent, standardized medical care and collaboration between 30 fire departments, six paramedic agencies, five EMS dispatch centers, 20 hospitals, the University of Washington, and the residents throughout King County that allows the system to excel in pre-hospital emergency care. Medical training is provided on a regional basis to ensure no matter the location within King County (whether at work, play, at home or traveling between locations) the medical triage and delivery is the same.

### **Tiered Medical Model**

Medicine is the foundation of the Medic One/EMS system. Services provided by EMS personnel are derived from the highest standards of medical training, practices and care, scientific evidence, and close supervision by EMS physicians. The tiered system is predicated on BLS agencies responding to every incident to stabilize the patient and secure the scene. This reserves the more limited regional resource of an ALS unit (known locally as a medic unit) for the serious or life-threatening injuries and illnesses. Managing the calls requiring advanced levels of care improves paramedic patient skills, conserves paramedic services for events requiring advanced skills, and reduces the number of calls to which paramedics respond. Compared to systems that send paramedics on all calls, the Medic One/EMS system in King County can provide excellent response and patient care with fewer paramedics. At a cost of over \$2 million per paramedic unit, this approach results in significant cost savings. The Tiered Medical Model pairs highly successful outcomes with reasonable control of costs, features that are unique to the King County system.

### **Programs and Innovative Strategies**

Programmatic leadership and state of the art science-based strategies have allowed the Medic One/EMS system in King County to obtain superior medical outcomes, and meet its own needs and expectations, as well as those of its residents. Rather than focusing solely on ensuring fast response by EMTs or paramedics, the system is comprised of multiple elements – including a strong evidence-based medical approach. This inclusive approach makes the system medically effective as demonstrated by the impact of providing police with automated external defibrillators on improved cardiac arrest survival rates. Continual medical quality improvement activities, such as the review of every cardiac arrest event for the past 35 years and patient protocol compliance audits, foster obtaining the best possible outcomes of care. The result of this on-going quality improvement is enhanced patient outcomes and a steadily rising cardiac arrest survival rate, currently the highest in the nation.

### **Focus on Cost Effectiveness and Efficiencies**

The Medic One/EMS system in King County has maintained financial viability and stability, even throughout the economic recession, due to a sustained focus on operational and financial efficiencies. The unique tiered response model contributes to the overall efficiency of service delivery by ensuring the most appropriate level of service is sent. BLS services respond locally and integrate seamlessly with the more regional ALS tier, adding to the EMS system's effectiveness. Targeting specific users of EMS and providing alternative, cost-effective yet still high quality and appropriate care are strategies pursued and practiced by the region to improve the quality of Medic One/EMS services, and manage the growth and costs of the system.

### **Maintaining an EMS Levy as Funding Source**

Medic One/EMS is supported by levy funds that make the services it provides less vulnerable, though not immune, to fluctuations in the economy. The EMS levy falls outside the King County statutory limits with senior and junior taxing districts, and therefore does not “compete” for capacity. Had a different type of levy been adopted for the 2008-2013 levy span, the EMS levy would have directly resulted in taxing district proportioning/rate suppression. The EMS levy is a reliable and tenable source for funding this world-renowned system.

**Although there are many different types of Medic One/EMS systems, the unique design of the King County system has proven itself time and again to maintain a resiliency and consistency of results through good times and bad.**

## MEDIC ONE/EMS SYSTEM OVERVIEW - cont.

Any time you call 9-1-1 for a medical emergency, you are using the Medic One/EMS system. The Medic One/EMS System in King County is distinctive from other systems in that it is a regional, medically based and tiered out-of-hospital response system. Its successful outcomes depend equally upon citizen involvement as well as extensively trained firefighter/Emergency Medical Technicians (EMTs) and highly specialized Paramedics. The system relies upon coordinated partnerships with fire departments, paramedic agencies, EMS dispatch centers, and hospitals and is managed by the Emergency Medical Services (EMS) Division of Public Health - Seattle & King County.

The response system is tiered to ensure 9-1-1 calls receive medical care by the most appropriate care provider. There are five major components in the tiered regional Medic One/EMS system:

**Universal Access:** A patient or bystander accesses the Medic One/EMS system by calling 9-1-1 for medical assistance. Bystanders' reactions and rapid responses to the scene can greatly impact the chances of patient survival.

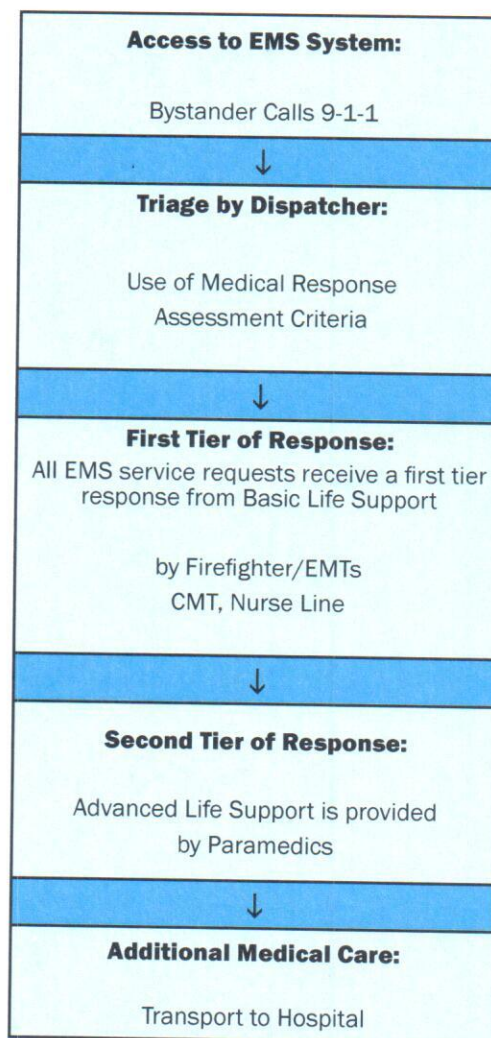
**Dispatcher Triage:** Calls to 9-1-1 are received and triaged by professional dispatchers who determine the most appropriate level of care needed. Dispatchers are trained to provide pre-arrival instructions for most medical emergencies and guide the caller through life-saving steps, including Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) instructions, until the Medic One/EMS provider arrives.

**Basic Life Support (BLS) Services:** BLS personnel are the "first responders" to an incident, providing immediate basic life support medical care that includes advanced first aid and CPR/AED to stabilize the patient. Staffed by firefighters trained as Emergency Medical Technicians (EMTs), BLS units arrive at the scene in under five minutes (on average). BLS contributes significantly to the success of the Medic One/EMS system.

**Advanced Life Support (ALS) Services:** Paramedics provide out-of-hospital emergency medical care for critical or life-threatening injuries and illnesses. As the second on scene, they provide airway control, heart pacing, the dispensing of medicine and other life saving procedures. There are 26 ALS units located throughout King County which are strategically placed for optimal response times.

**Transport to Hospitals:** Once a patient is stabilized, it is determined whether transport to a hospital or clinic for further medical attention is needed. Transport is most often provided by an ALS agency, BLS agency or private ambulance.

### EMS Tiered Response System





The **Medic One/EMS system in King County** is recognized as one of the best emergency medical services programs in the country. It serves nearly two million people throughout King County and provides life-saving services on average every three minutes. In 2011, firefighter/EMTs responded to more than 164,000 calls in King County; 45,000 of the calls also required paramedic responses. Approximately 1 out of 10 people will use the Medic One/EMS system in King County, and each year, the system saves thousands of lives.

For over 30 years, the system has held steadfast to its core beliefs of providing pre-hospital medical care that is regionally designed, medically based, and uses a tiered response model. It operates in coordinated partnerships based on the acknowledgement by the BLS and ALS agencies that the benefits of regionalization, collaboration, and cross-jurisdictional coordination far exceed the individual benefits associated with other Medic One/EMS service delivery and funding mechanisms. The success of the system is testimony to the commitment of all its participants to providing high quality services to the residents of King County.

For most, if not all, EMS systems throughout the nation, life-threatening calls (which the King County system classifies as ALS calls) represent only approximately 25% of all EMS-related 9-1-1 requests – meaning that approximately 75% of the requests for service involve critically important but less life threatening conditions that require a competent and effective basic life support (BLS) service tier to handle.

The **BLS response tier** handles 100% of the service requests and is the foundation of the response for both BLS and ALS parts of the system. It is imperative that BLS care arrive quickly, since minutes count in emergencies, and BLS units arrive at the scene in under five minutes (on average). EMTs in Seattle and the remainder of King County are among the most trained and - more importantly - most practiced providers of BLS care of systems anywhere. BLS is provided by firefighter/EMTs aboard fire trucks and aid cars (ambulances providing BLS level care) in various deployment configurations that are decided locally by fire agencies. The EMS levy contributes some BLS funding to local fire agencies to help offset the costs of providing EMS services, however, most BLS funding is raised and managed locally.

The BLS tier seamlessly integrates with the more regional **ALS response tier**. The EMS levy provides 100% of the funding support for ALS. ALS is provided by highly trained paramedics who have completed an extensive program at Harborview Medical Center in conjunction with University of Washington School of Medicine. These highly trained paramedics remain well practiced and use their skills on a daily basis to provide effective care when it is needed most.

Paramedics operate in teams of two, riding aboard ambulance type vehicles known as “medic units”. There are 26 medic units strategically placed throughout King County that are deployed regionally to life-threatening emergencies. Unit placement is reviewed on an annual basis to ensure the best mix of short response time, appropriately high levels of ALS calls per unit, and upper limits on extremely difficult to serve areas of the county (typically rural or isolated areas). These 26 units are operated by six ALS agencies. The unit analysis performed by the EMS Division during the past three years to determine unit needs for the coming years of the next levy demonstrates that the EMS system has ample existing capacity within these 26 units for years to come.

## MEDIC ONE/EMS SYSTEM OVERVIEW - cont.

ALS and BLS services are managed by the **EMS Division, Public Health - Seattle & King County** through performance based contracts with service providers (and by the direct provision of services, in the case of King County Medic One). The EMS Division also manages core support functions that tie together the regional model, providing consistency, standardization and oversight of the direct services provided by the system's 30+ partners. It is far more medically effective and cost efficient for the EMS Division to produce, administer and share initial training, continuing education and instructor education for 4,000 EMTs; to manage the certification process for EMTs county-wide; to provide medical oversight, quality improvement and performance standards for the system as a whole; than to have each local response agency develop, implement and administer its own such programs. Regional support services managed by the EMS Division can be found in Appendix A: Planned Regional Services on page 74, and programmatic efficiencies implemented by the EMS Division and its partners can be found in Appendix B: Planned Efficiencies on page 77.

The **EMS Advisory Committee** monitors the uniformity and consistency of the Medic One/EMS system. This Committee has provided key counsel since 1997 to the EMS Division regarding regional Medic One/EMS policies and practices in King County. Members convene on a quarterly basis to review implementation of the Strategic Plan as well as other proposals put forth, including Strategic Initiatives and medic unit recommendations.

King County's Medic One/EMS system is funded with a **6-year EMS levy**, and does not impose ALS transport fees. The current rate is \$.30 per \$1,000 of Assessed Valuation, meaning that a family of a \$400,000 home pays \$120 a year for Medic One services. Other systems charge much higher taxes (many as high as \$.50 per \$1,000) and charge transport user fees, yet still face increasing call volumes, cost overruns and declining revenues from user fees.

In contrast, the King County EMS system has held ALS call growth steady, making full use of existing assets and saving its residents **\$49 million over 10 years** in avoided and costly expansion of ALS services while at the same time providing the best clinical outcomes of any system anywhere.

**The EMS levy provides exceptional regional ALS care for less than most other systems in Washington State, and perhaps the nation.**

### STRATEGIC PLAN

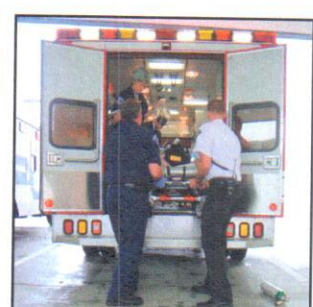
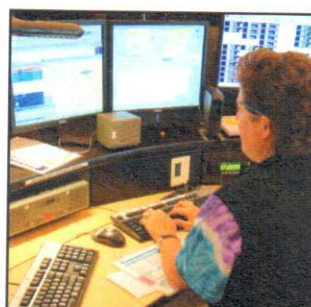
The current EMS levy and Strategic Plan will expire on December 31, 2013. Therefore, a reauthorization of the EMS levy, along with the generation of an updated EMS Strategic Plan, are necessary to provide a continuous transition into the new levy period. Per King County Ordinance 15862, the EMS Advisory Task Force was convened to develop recommendations for the Medic One/EMS 2014-2019 Strategic Plan, which is due to the King County Council by January 1, 2013.

The Strategic Plan is the primary policy and financial document that will direct the Medic One/EMS system into the future. The plan provides elected officials, the EMS community, and the public with a general description of the programmatic services to be supported throughout the levy period, and a financing plan to implement the recommendations. It details the necessary steps to ensure the system can meet tomorrow's commitments, yet still allows for flexibility in addressing emerging community health needs. The result of a nine-month all-inclusive planning process undertaken by regional Stakeholders, the Strategic Plan reflects collaborative efforts from public and private regional partners, cities, the King County Executive and the EMS Division.

### **Medic One/EMS System Objectives**

The Strategic Plan advances the following global objectives for the Medic One/EMS system to ensure it remains a regional, cohesive, medically-based, tiered response system:

1. Maintain the Medic One/EMS system as an integrated regional network of basic and advanced life support services provided by King County, local cities, and fire districts.
  - Emergency Medical Dispatchers receive 9-1-1 calls from citizens and rapidly triage the call to send the most appropriate level of medical aid to the patient while providing pre-arrival instructions to the caller.
  - Firefighters, trained as Emergency Medical Technicians, provide rapid, first-on-scene response to emergency medical service calls and deliver immediate basic life support services.
  - Paramedics, trained through the Paramedic Training Program at the University of Washington/Harborview Medical Center, provide out-of-hospital emergency medical care for serious or life-threatening injuries and illnesses. As has been adopted in prior Medic One/EMS strategic and master plans, Advanced Life Support services will be most cost effective by delivering services on a sub-regional basis with a limited number of agencies.
  - Regional programs emphasize uniformity of medical care across jurisdictions, consistency and excellence in training, and medical quality assurance.
2. Make regional delivery and funding decisions cooperatively, and balance the needs of Advanced Life Support (ALS), Basic Life Support (BLS), and regional programs from a system-wide perspective.
3. Develop and implement strategic initiatives to provide greater efficiencies and effectiveness within the system to:
  - Maintain or improve current standards of patient care;
  - Improve the operational efficiencies of the system to help contain costs; and
  - Manage the rate of growth in the demand for Medic One/EMS services.



### **EMS SYSTEM POLICIES**

The Medic One/EMS 2014 - 2019 Strategic Plan and its identified key components are consistent with the newly adopted set of EMS Policies that establish a general framework for medical oversight and financial management of emergency medical services in King County. The EMS System Policies (PHL 9-1) reinforce the regional commitment to the medical model and tiered system, while the EMS Financial Policies (PHL 9-2) provide guidance and oversight for all components related to financial management of the EMS levy fund. In addition, policies regarding ALS services outside King County (PHL 9-3), including the formation of a service threshold for the purpose of cost recovery, are established.

## MEDIC ONE/EMS SYSTEM OVERVIEW - cont.

The following table summarizes the EMS System policies:

EMS System Policies:
The EMS Division will <b>work in partnership</b> with regional EMS partners to regularly review and assess EMS system needs and develop financial and programmatic policies and procedures necessary to meet those needs.
The EMS Division will ensure the EMS system in King County remains an <b>integrated regional system</b> that provides cohesive, medically-based patient care within a tiered response system to ensure the highest level of patient care.
The EMS Division will ensure the EMS system in King County provides <b>paramedic training through the UW/HMC-based educational program</b> that meets or exceeds the standards.
The EMS Division will <b>maintain a rigorous and evidence-based system</b> with medical oversight of the EMS system to ensure the provision of quality patient care.
The Medical Program Director will <b>adhere to the principles of regional medical oversight</b> of EMS personnel.
The EMS Division advocates for the provision of automatic aid between agencies; should established service thresholds be reached, affected EMS agencies will review options and establish terms for reasonable cost recovery.

### ALIGNMENT WITH KING COUNTY GOALS AND OBJECTIVES

The Medic One/EMS 2014-2019 Strategic Plan promotes King County’s mission to provide fiscally responsible, quality driven local and regional services, and adheres to the County’s guiding principles of accountability, innovation, professionalism and results.

<b>JS1d</b> <b>Provide rapid emergency response.</b>	Emergency medical services directly support the strategy to “facilitate access to programs that reduce or prevent involvement in the ...emergency medical systems, and to promote stability for individuals currently involved in those systems.” Its focus on sound financial management includes working with cities to provide services more efficiently, pursuing technologies that improve service while reducing delivery cost, and managing assets in a way that maximizes their productivity and value. EMS responses are distributed throughout the region based on service criteria. Therefore, areas with economic challenges are provided the same level of service as areas with economic prosperity. This ensures access to health and human services, and furthers King County’s Equity and Social Justice Program (ESJ). In addition, many EMS projects and grants include ESJ-related elements in their criteria, such as the proximity to low income house, or addressing Limited English proficiency. EMS’s emphasis on increasing the number of healthy years lived, and provision of EMS services advances the objectives of the Public Health Operational Master Plan.
<b>FS1b</b> <b>Work with partners to provide services more efficiently.</b>	
<b>HHP4b</b> <b>Deliver integrated and effective services.</b>	
<b>HHP1a</b> <b>Prevent causes of poor health, including injuries.</b>	

# EMS LEVY

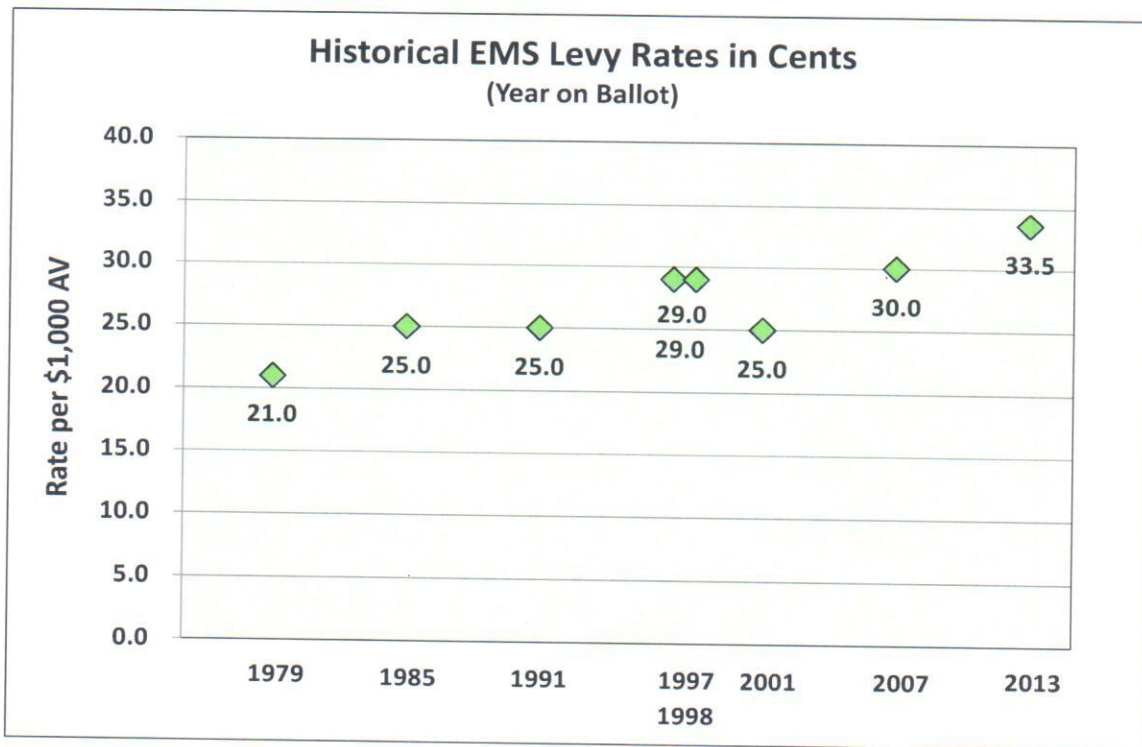
## EMS LEVY

The Revised Code of Washington (RCW) 84.52.069 allows jurisdictions to levy a property tax “for the purpose of providing emergency medical services.” The levy is subject to the growth limitations contained in RCW 84.52.050 of 1% per year plus the assessment on new construction, even if assessed values increase at a higher rate.

Specifically, RCW 84.52.069:

- Allows a jurisdiction to impose an additional regular property tax up to \$0.50 per \$1,000 Assessed Value (AV);
- Allows for a six-year, ten-year or permanent levy period;
- Mandates that, for a countywide levy, the legislative bodies of the county and those cities with populations in excess of 50,000 approve the levy proposal prior to placement on the ballot. For the 2014-2019 levy, the cities in King County required to approve the ballot will be Auburn, Bellevue, Federal Way, Kent, Kirkland, Redmond, Renton, Seattle and Shoreline; and
- Requires a simple majority for the renewal of a six-year or ten-year levy (effective June 7, 2012).

Medic One/EMS levies in King County have never been authorized for more than six years.



Per an agreement with King County in place since the creation of the countywide EMS levy, Seattle receives all Medic One/EMS levy funds raised within the city limits. County funds are placed in the KC EMS Fund and managed regionally by the EMS Division based on Public Health system and financial policies, Strategic Plan guidelines and recommendations from the EMS Advisory Committee.

King County EMS Funds are spent on these five main areas:

**Advanced Life Support (ALS) Services:**

Funding ALS services is the priority of the Medic One/EMS levy, which fully funds ALS services predominately through the ALS unit allocation model. ALS services are provided by six agencies: Bellevue, Redmond, Seattle, Shoreline, Vashon, and King County Medic One. Exceptions to the unit allocation model are sometimes required, as in the case of Snohomish County Fire District #26, and are made on the basis of the specifics of the service issue. *Proposed to receive 60% of KC EMS funds (2014-2019 levy).*

**Basic Life Support (BLS) Services:**

BLS agencies receive an annual distribution of levy revenue from the EMS Division to help offset the costs of providing EMS services. Funding levels are based on a combination of the volume of responses to calls for EMS services and assessed property values within the fire agencies' jurisdictions. Local jurisdictions, not the EMS levy, cover the majority of BLS costs, and King County has been able to fund the system at a lower levy rate due in part because the majority of BLS related response costs are paid by local jurisdictions. BLS services are provided by 30 fire departments and districts, including Seattle. *Proposed to receive 23% of KC EMS funds (2014-2019 levy).*

**Regional Support Services:**

The EMS Division manages core regional Medic One/EMS programs that are critical to providing the highest quality out-of-hospital emergency care available and are more effective and/or economical when delivered on a regional basis. These services emphasize uniformity of medical care across jurisdictions, consistency in excellent training, and medical quality assurance. *Proposed to receive 12% of KC EMS funds (2014-2019 levy).*

**Strategic Initiatives:**

Strategic Initiatives are pilot programs designed to improve the quality of Medic One/EMS services and manage the growth and costs of the system. Successful initiatives may be incorporated into Regional Services as ongoing programs. *Proposed to receive 2% of KC EMS funds (2014-2019 levy).*

**Reserves:**

Reserves with strict access and use policies are available to fund unanticipated/one-time costs. EMS reserves follow adopted use and access policies. Policies describing use and access align with similar reserve policies that exist for all of King County government. *Proposed to receive 3% of KC EMS funds (2014-2019 levy).*

## LEVY PLANNING PROCESS

### BACKGROUND

King County Ordinance 15862 created the EMS Advisory Task Force to “ensure continued emergency medical services for King County by reviewing issues and options and by developing recommendations for the next Strategic Plan.” Beginning in October 2011, the Task Force began collaboratively reviewing the needs of the system with EMS Stakeholders, and subsequently endorsed programmatic policies and a levy rate to put before the voters of King County. While not every member of the Task Force is an EMS expert, all have a stake in ensuring the continuity in the provision of EMS services in King County. Its membership collectively represents a balanced geographic distribution of those jurisdictions that are required to endorse the levy proposal prior to its placement on ballot, per RCW 84.52.069.

The EMS Advisory Task Force was charged with reviewing and approving Medic One/EMS program recommendations for the span of the next levy. The recommendations will build upon the system’s proven medical model and regional approach, establish new policy directions, and present a financial plan to support the Medic One/EMS system for 2014 and beyond.

Responsibilities included evaluating and endorsing recommendations regarding:

- Current and projected EMS system needs;
- A Financial Plan based on those needs; and
- Levy type, levy length, and when to run the levy.

### **Current and Projected EMS System Needs:**

The Strategic Plan must ensure the EMS system remains an integrated regional system that provides cohesive, medically-based patient care within a tiered response system to ensure the highest level of patient care, and fosters coordination and collaboration between Medic One/EMS partners.

### **Financial Plan to Meet those Needs:**

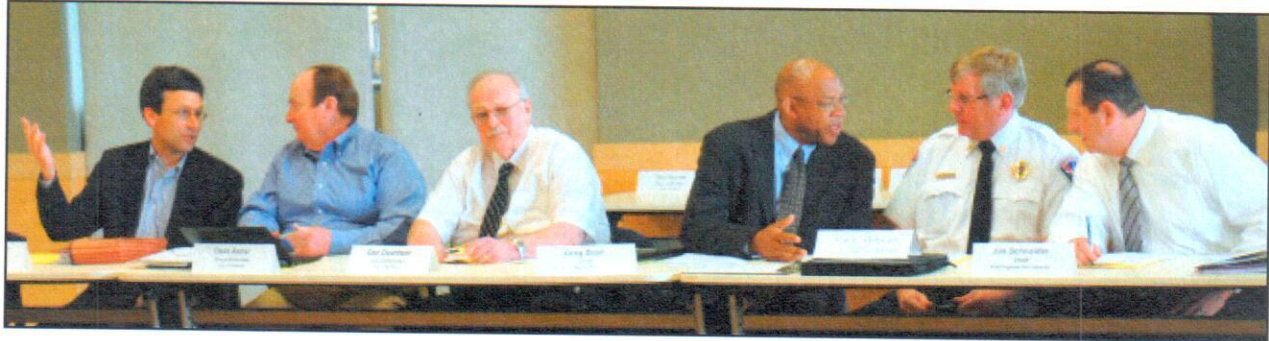
The Strategic Plan must support quality emergency medical services, and supply adequate funding to provide these services. However, the plan must recognize individual jurisdictions’ needs for local autonomy to meet their communities’ expectations and Medic One/EMS services.

## Priorities:

The priority of the levy reauthorization is to ensure Medic One remains an adequately funded, regional tiered system, reflects the existing successful medical model, and continues to provide state of the art science-based strategies, programs and leadership.

### **Levy Type, Length, and When to Run the Levy:**

Until recently, an EMS levy required for passage an approval rate of 60% or greater at an election at which the voter turnout must exceed 40%. Because of these voter requirements, options for running the levy were limited to general elections. During this levy planning process, the Washington State Legislature amended RCW 84.52.069 changing the validation rate (effective June 7, 2012) to a simple majority, and eliminating the 40% voter turnout requirement.\* This provides the region with additional opportunities for running the EMS levy in 2013.



### **LEVY PLANNING PROCESS**

The levy planning process closely followed the EMS Advisory Task Force Work Plan submitted to the King County Council on September 15, 2010. The Task Force met four times (October 2011, January 2012, May 2012 and July 2012) and used its four subcommittees representing Advanced Life Support (ALS), Basic Life Support (BLS), Regional Services (RS) and Finance to complete the bulk of the program and cost analysis. Each subcommittee was chaired by one EMS Advisory Task Force member, and met on a regular basis to conduct detailed review and analysis that was then reported back to the Task Force. Subcommittee membership included Stakeholders and subject matter experts from all aspects of the Medic One/EMS system (medical directors, labor representatives, finance specialists, hospitals, dispatch agencies and private ambulance companies) and other interested parties.

Committed to ensuring sufficient time for study, discussion and agreement, the subcommittees met a total of 23 times over seven months, and generated recommendations that subsequently came to the Task Force for approval. Emphasis was placed on allowing all participants the opportunity to bring forth concepts and provide input in an open and transparent manner. The subcommittees evaluated each idea by balancing its merits of furthering the goals of the system against the challenges of constrained revenues.

Potential subcommittee participants were identified by the King County Executive, Public Health – Seattle & King County and the EMS Division in conjunction with the King County Council prior to the convening of the EMS Advisory Task Force, and endorsed at the first meeting. The Chairs of the Task Force and its four subcommittees constituted a Steering Committee that met monthly to confirm alignment with the overall goals of the planning process. The EMS Division of the Public Health Department provided staff support in organizing, preparing for, and facilitating the meetings of the EMS Advisory Task Force and its subcommittees.

\* SB 5381 amended RCW 84.52.069 requiring a three-fifths majority to authorize a new EMS levy, and requiring a simple majority for the renewal of a six-year or ten-year levy.



## Medic One/EMS 2014-2019 Strategic Plan

### Operational and Financial Proposals for the Medic One/EMS 2014-2019 Levy

The EMS Advisory Task Force endorsed the following at its July 26, 2012 meeting:

**Reauthorize a six-year EMS levy** to fund the EMS system for the years 2014-2019 per RCW 84.52.069.

**Enact levy rate of 33.5 cents** /\$1,000 Assessed Valuation to fund projected expenditures of \$695 million over the 2014-2019 span. The average homeowner will pay approximately \$107 a year in 2014 for highly trained medical personnel to arrive within minutes of an emergency, any time of day or night, no matter where in King County – this is \$3 less than the average homeowner paid in 2008 for these same services. The region's due diligence in focusing on operational and financial efficiencies can be credited with keeping costs down while preserving this most acclaimed service. This budget will support increased services at a funding level that is lower than the cost of continuing the current six-year funding level with inflation.

**Renew the EMS levy in 2013** at either the Primary or General election, with the King County Council making the final determination.

**Continue using financial policies** guiding the 2008-2013 levy; refine if necessary. The financial policies guiding the 2008-2013 levy period have provided a very strong foundation for the upcoming levy. The policies can be fine-tuned to better meet 2014-2019 needs.

**Continue services from 2008-2013 levy** through the 2014-2019 EMS levy. The next levy should fully fund and continue operations with the current 26 ALS units in service, partially fund first responder services for local fire and emergency response departments, and maintain programs and initiatives that provide essential support to the system and encourage efficiencies, innovation and leadership.

**Meet future demands** over the span of the 2014-2019 levy. Services include collaborating on programs that reduce impacts on BLS agencies, and rescoping programs to meet emerging community needs. No new or added medic units are anticipated.

## Operational and Financial Fundamentals of the Medic One/EMS 2014-2019 Levy

Endorsed by the EMS Advisory Task Force on 7/26/2012

### Financial Recommendations

**Continue** with EMS levy:

- Six-year EMS levy, per RCW 84.52.069
- Forecasted budget of \$695 million over six-year span, including reserves
- Levy rate of 33.5 cents/\$1,000 Assessed Valuation
- Would be run at either the 2013 Primary or General election, with the King County Council determining which election

### Advanced Life Support (ALS) Services Recommendations

**Continue** services from 2008-2013 levy:

- Continue operations with the 26 units currently in service
- Fully fund eligible costs of existing paramedic services to prevent cost shifting to agencies
- Project annual increases using a compound inflator

**Provide** to meet expected demands:

- No new medic units over the span of a six-year levy
- Reserves to cover unanticipated and one-time expenses
- Efficiencies to refine ALS costs and increase effectiveness
- Funding for a possible 12-hour medic unit in the later years of the levy in case demand for services increases

### Basic Life Support (BLS) Services Recommendations

**Continue** services from 2008-2013 levy:

- Partial funding for BLS services (firefighters/EMTs)
- Maintain King County portion of BLS funding at same percentage of overall expenses of previous levy period
- Maintain current funding formula for allocation (based 50/50 on Assessed Values and Call Volumes)

**Provide** to meet expected demands:

- Programs and Initiatives that help manage growth, reduce impacts and increase the role of BLS agencies in regional decision-making

### Regional Services Recommendations

**Continue** services from 2008-2013 levy:

- Essential Regional Services programs that support the Medic One/EMS system

**Provide** to meet expected demands:

- Re-scoped and enhanced Regional Services programs to meet emergent needs

### Strategic Initiatives Recommendations

**Continue** services from 2008-2013 levy:

- Conversion of 2008-2013 Strategic Initiatives that have improved the quality of service and managed growth and costs into Regional Services programs to become ongoing programs

**Provide** to meet expected demands:

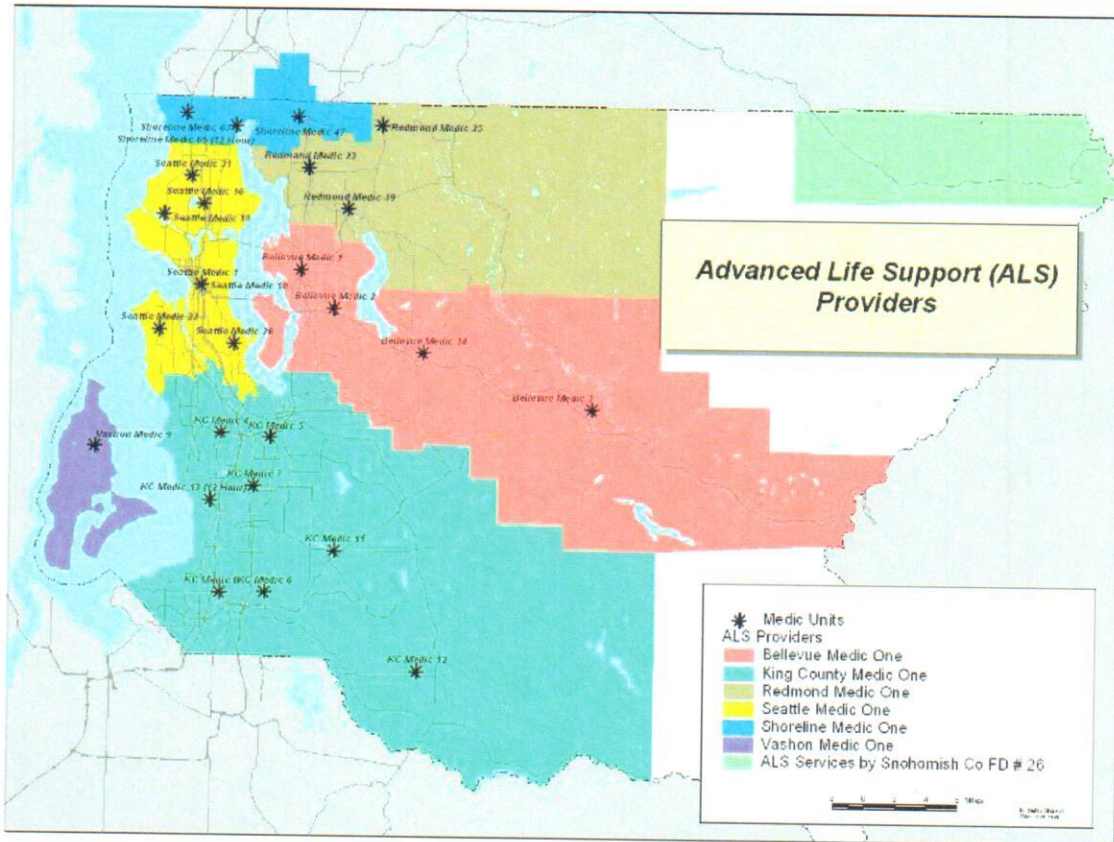
- Revamped and new Strategic Initiatives

## PROGRAM AREAS

### ADVANCED LIFE SUPPORT (ALS)

Paramedics provide out-of-hospital emergency care for serious or life-threatening injuries and illnesses. As the second on scene for critically ill patients, paramedics deliver Advanced Life Support (ALS) to patients including airway control, heart pacing, the dispensing of medicine, and other life-saving out-of-hospital procedures under the medical supervision of the Medical Program Director. Paramedic interns receive nearly 2,500 hours of highly specific emergency medical training through the Paramedic Training Program at the University of Washington/Harborview Medical Center, nearly double the required number of hours for Washington State paramedic certification.

In King County, a paramedic unit is typically staffed by two paramedics, requiring the equivalent of approximately nine paramedic full-time staff to provide service 24-hours per day, 365 days per year. The two-paramedic model was developed in the early 1970's in the City of Seattle and has proven to be the most effective model for enhanced patient care outcomes when incorporated into a regionally coordinated tiered response system that includes dispatch and Basic Life Support (BLS).



Advanced Life Support Agencies in King County

As of 2012, there are 26 ALS units throughout Seattle and King County. These units are managed by six ALS agencies: Bellevue Medic One, King County Medic One, Redmond Medic One, Seattle Medic One, Shoreline Medic One, and Vashon Medic One. Additional paramedic service in the Skykomish area is delivered via contract with Snohomish Fire District

## PROGRAM AREA - ALS - cont.

#26. Paramedic service above established thresholds into cities where the municipal boundaries or the fire agency's response district crosses into neighboring counties (such as Pierce and Snohomish) is provided with appropriate reimbursement by the receiving jurisdictions, per EMS policies.

The Medic One/EMS system in King County has historically added new units to maintain paramedic service levels in the face of ALS service challenges. Prior to any unit addition, a thorough analysis considering workload (call volumes), average unit response times, fractile response times and critical skills is conducted. Analysis also includes an assessment of whether medic units could be moved to other locations to improve workload distributions and response times. Appendix C: Advanced Life Support (ALS) Units on page 81 provides a complete history of medic units in King County, highlighting when and where units were added.

During the 2008-2013 levy period, paramedic unit projections included the addition of three (3) 24-hour units in the financial plan; one in the City of Seattle and two in the remainder of the county. Following a thorough regional paramedic unit analysis, only two 0.5 units were found necessary, both of which involved converting existing 12-hour units to full time 24-hour units. While conducting this same analysis for the 2010 unit addition, regional ALS agencies agreed to

Paramedic Agency	Number of Units		Number of Units
	(2008-2013 levy period)		(2014-2019 levy period)
	Beginning	End	
Bellevue Medic One	4.0 units	4.0 units	4.0 units
King County Medic One	<b>7.5 units</b>	<b>8.0 units</b>	8.0 units
Redmond Medic One	3.0 units	3.0 units	3.0 units
Seattle Medic One	7.0 units	7.0 units	7.0 units
Shoreline Medic One	<b>2.5 units</b>	<b>3.0 units</b>	3.0 units
Vashon Medic One	1.0 units	1.0 units	1.0 units
<b>Total Number of Units</b>	<b>25 units</b>	<b>26 units</b>	<b>26 units</b>

**In 2010, medic unit analysis demonstrated that there would be adequate regional unit capacity through the end of the 2008-2013 levy period, and the remaining two 0.5 units were released for a savings of over \$2.5 million.**

delay further additions until it could be demonstrated they were needed. Subsequent unit analysis demonstrated there was adequate regional unit capacity through the end of the levy period, and the remaining two 0.5 units were released for a savings of over \$2.5 million. This same unit analysis methodology predicts that there will be system capacity for the duration of the 2014-2019 levy period, and no additional units will be needed for the next six year levy span.

In 2011, paramedics responded to over 45,000 calls for emergency medical care in King County. This represented 27% of the total number of Medic One/EMS calls in the region. Figure 1 below reflects a trend of decreasing ALS calls over the past four years, mostly due to the successful implementation of changes to the ALS dispatch criteria.

The average response time of medic units in the county is 7.5 minutes, and units respond to 95% of the calls in less than 14.0 minutes. These numbers have remained stable over the past levy period despite increased population.

Paramedics are more likely to attend to older patients (40.2% of ALS calls are for 65+ yrs) respond to cardiac conditions (27.0% of ALS calls) and transport 47% of the time when called to the scene.

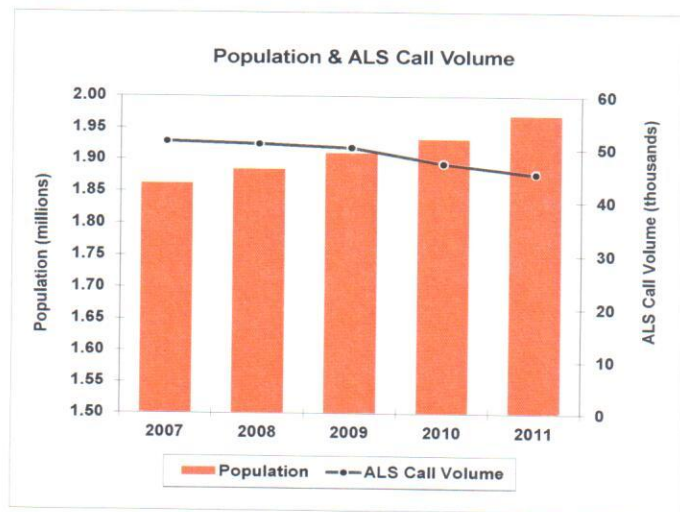


Figure 1: King County ALS population and call volume

### **ALS SUBCOMMITTEE:**

The ALS Subcommittee recognized its tasks as determining the number of units needed in the next levy period and establishing the cost of each unit. The committee then debated how to refine costs through efficiencies and most appropriately fund unanticipated items that could arise. The topics of best practices and using measures other than cardiac arrest outcomes were also raised, as were ALS transport fees and options for becoming an ALS provider.

#### **The ALS Subcommittee adopted the following principles to guide its decision-making:**

##### **1. Maintain ALS as the Funding Priority**

ALS will remain the primary recipient of the Medic One/EMS levy and the first commitment for funding within the Medic One/EMS system.

##### **2. Provide Full Funding for Eligible Costs**

ALS agencies should not assume the burden of cost-shifting during the levy period. ALS agencies recognize their obligation for cost containment and commit to best practices and other cost and efficiency methods.

## PROGRAM AREA - ALS - cont.

### **3. Use Unit Allocation Model**

The standard unit allocation, designed to include all ALS-related operating expenses in order to prevent cost-shifting to agencies, will remain the basis for funding each full time medic unit (with the exception of Seattle Medic One) until the time that a more appropriate methodology is found. This methodology requires that ALS costs incurred in providing the regional benefit of ALS services be distinguished from other agency category of costs, such as fire suppression.

### **4. Use Annual Cost Inflation**

A model to accurately forecast system expenses to prevent cost-shifting to ALS agencies will be used when developing the Financial Plan.

### **5. Provide Adequate Reserves**

Funding will be included to cover unplanned expenditures – whether these relate to an emergency situation, significant changes in economic assumptions, or new operational and programmatic needs.

The ALS Subcommittee recommendations are as follows:

**Recommendation 1:** Continue using the Unit Allocation Methodology to determine costs.  
*The ALS unit allocation methodology provides a fair and equitable distribution of funds to ALS agencies.*

### **Unit Allocation Methodology**

Refined during the development of the Medic One/EMS 1998-2003 Strategic Plan in 1996, the standard unit cost allocation model calculates across all ALS agencies the average annual operating costs to run a two-paramedic, 24-hour medic unit. This methodology ensures a fair and equitable distribution of funds, helps document and justify the ALS allocation, and establishes 100% funding of ALS services.

The standard unit allocation is the basis for funding each full time medic unit (with the exception of Seattle Medic One).

The standard unit allocation methodology is designed to include only ALS-related operating expenses in order to prevent cost-shifting to agencies. In principle, averaging ALS costs from each of the agencies could cause cost-shifting to those agencies above the average standard unit cost. However, the historic range between agencies has not varied greatly, enabling agencies to modestly adjust their expenditures to prevent cost-shifting.

## Recommendation 2: Fund ALS units starting at \$2.12 million per unit.

The ALS funding allocation is based on a standard unit cost allocation model applied to each ALS agency equally based on the number of ALS units.

### Standard Unit Allocation

An equipment allocation fund was created during the 2008-2013 levy period for the purchase of vehicles, defibrillators, IT equipment and facility improvements directly related to supporting the provision of ALS services. As a result, the total standard unit allocation now includes two subcategories: the operating allocation and the equipment allocation. Calculation of the average standard unit allocation for the 2014-2019 levy period required that each ALS agency report expenditures for year 2011 for a 24-hour medic unit. Each agency's yearly total expenditures, adjusted for known factors, were then used to project costs during the next levy period and averaged to establish the standard unit allocation for each specific year.

Each individual paramedic agency's annual ALS allocation is determined by multiplying the number of operating medic units both by the operating allocation and the equipment allocation, and combining these two amounts.

The primary *operating expenditure* categories included:

ALS specific Personnel Wages and Benefits	Vehicle Maintenance & Fuel
Medical Supplies and Equipment	Training
ALS specific Facility Costs	Other Operational Costs
Dispatch & Communications	Indirect Costs

The primary *equipment expenditure* categories included:

Medic Units (Patient Transport Vehicles)
Defibrillators
Mobile Data Computers
Radios

### Standard Unit Cost Allocation

Item	King County EMS Fund	City of Seattle
2014 Operational Cost	\$2,043,121	\$2,522,582
2014 Equipment Cost	\$84,008	\$131,642
<b>2014 Total Unit Cost</b>	<b>\$2,127,129</b>	<b>\$2,654,224</b>

During the Medic One/EMS 2014-2019 levy planning process, the ALS Subcommittee discussed options for improving operational efficiencies and effectiveness. The subcommittee recommended ALS agencies thoroughly analyze how they might extend the vehicle life to produce savings in the equipment allocation. The EMS Division will undertake a comprehensive medic unit life-cycle analysis and adjust the allocation based on results and periodic review of costs.

## PROGRAM AREA - ALS - cont.

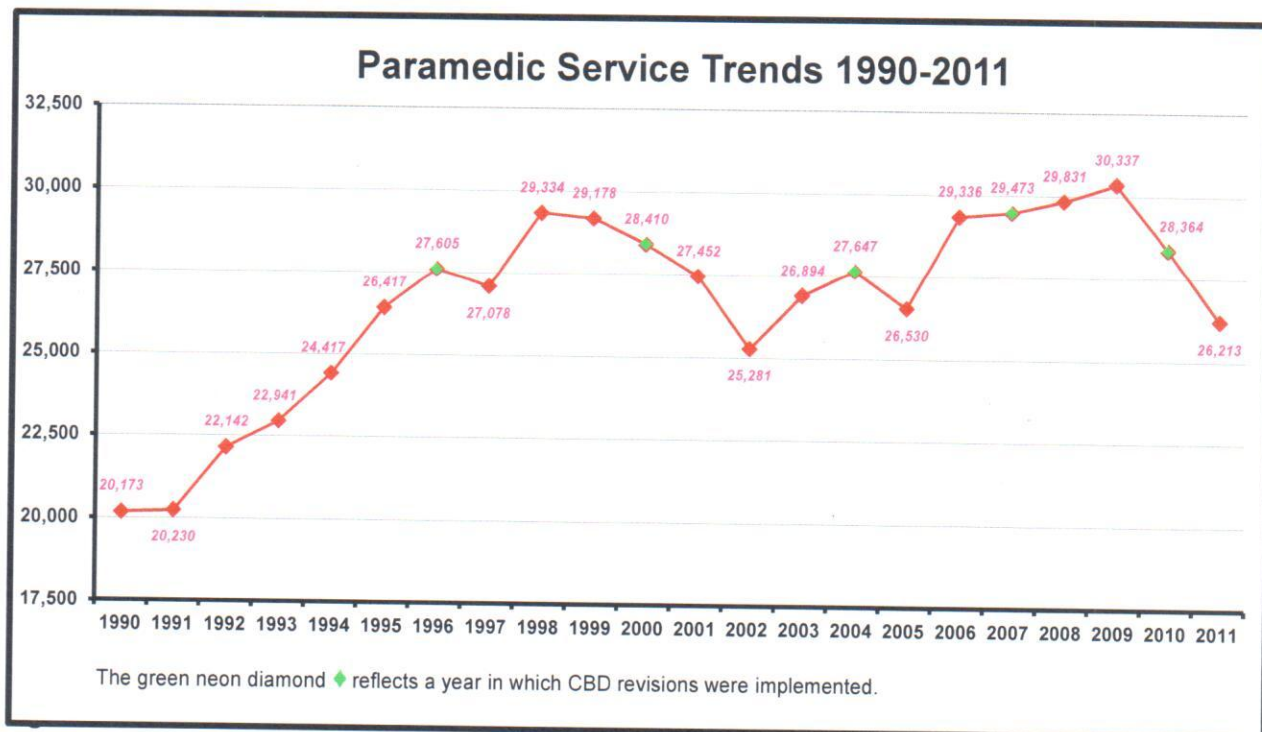
### Recommendation 3: Maintain 26 medic units (no new additions).

The regional system has sufficient ALS capacity to address growth and does not need to add any new units over the span of the six-year Medic One/EMS levy.

- This recommendation is based on continued projected pattern of modest growth in call volumes during the six-year levy period.
- ALS agencies conclude that there is sufficient capacity within the region to address the anticipated level of growth without adding units.

#### ALS Capacity Analysis

In addition to establishing the standard unit allocation, identifying the anticipated number of new medic units needed during the 2014-2019 levy period was an important task. As indicated below in Figure 2, the pattern of growth in paramedic calls, outside the City of Seattle, has changed dramatically since the early 1990's. This is due in large part to the successful implementation of the ALS dispatch criteria revisions, a major Strategic Initiative from the Medic One/EMS 1998-2003 Strategic Plan. The annual rate of growth during the early 1990's was ~6% per year, ranging from 4% to 8%.





However, from 1997 through 2006, the average annual rate of growth averaged less than 1% per year, with annual increases ranging from 10.6% to -7.9%. The pattern of decreased paramedic calls following changes to the dispatch criteria punctuated with sudden increases is likely due in part to the demand for calls linked to growth in population no longer being masked by the impact from revisions to the dispatch criteria. This pattern of containment of demand allowed the Medic One/EMS system to delay and eliminate the addition of costly paramedic units.

Projecting future paramedic demand is an important step in estimating the need for additional medic units so that costs could be factored into the 2014-2019 Medic One/EMS Financial Plan. During the past five years, a pattern of minimal call volume increases paired with more recent declines has resulted in an average of over 2% decline per year. The ALS Subcommittee reviewed unit performance trends and an array of linear projections to assess whether the anticipated demand could be met with current resources. The group concluded that there was adequate capacity within the region to manage anticipated demand for the duration of the coming levy period.



### **Medic Unit Analysis**

Since no new medic units are expected to be needed in the 2014-2019 levy period, it is critical to provide adequate oversight of the current medic units to ensure continued high performance. The major unit indicators include the following:

- Unit workload;
- Unit response time;
- Availability in primary service area and dependence on backup;
- Frequency and service impact of multiple alarms; and
- Paramedic exposure to critical skill sets.

Performance indicators do not, by themselves, serve as automatic triggers for adding new paramedic services, but they do help direct attention to a geographical area of the Medic One/EMS system which may need further examination. This broad approach to medic unit analysis is needed since there are a variety of medic unit environments. Some units operate in small, highly dense areas with high call volumes and short response times, while others operate in large, more rural areas with lower call volumes and longer response times. Five year trends are typically reviewed to identify the magnitude of any service gaps to ascertain the degree of need for additional service.

Prior to implementing any new paramedic service, the region outside the City of Seattle conducts a thorough analysis of medic unit performance to determine if medic units can be moved to alternative locations to better serve the region. Relocating medic units to new locations is a function of having regional providers of ALS services and is an important feature of the EMS system in King County. A regional provider can serve many cities without regard to

## PROGRAM AREA - ALS - cont.

jurisdictional boundaries, unlike other less regionally designed systems. In fact, ALS agencies may relocate units to other locations without regard to municipal boundaries in order to mitigate the increased stress on the system. If the regional review concludes that additional medic unit service is required, a process of approval by the EMS Advisory Committee and the King County Council ensues.

### **Recommendation 4:** Continue to use reserves.

*Reserves with strict access and usage policies are appropriate mechanisms to cover unanticipated/one-time expenses.*

Reserves were included in the Medic One/EMS 2008-2013 Strategic Plan to cover unplanned expenditures, and refined during the levy period into twelve ALS reserves and contingencies. The ALS Subcommittee recommended simplifying these twelve ALS reserves and contingencies into four general categories for the 2014-2019 levy period. Recommended rules and guidelines for accessing the sub-reserves remain similar to the existing reserves with small modifications. Use of reserves requires review by the EMS Advisory Committee Financial Subcommittee, the EMS Advisory Committee, and the King County Council (usually through the normal budget process).

### **Recommendation 5:** Establish a placeholder (reserve) to fund a 12-hour medic unit.

*The ALS Subcommittee recommends establishing a reserves placeholder to fund the equivalent of a 12-hour unit in 2018 should projections significantly change.*

As a result of the recommendation to add no new paramedic service during the 2014-2019 levy period, the ALS Subcommittee supported establishing a 12-hour placeholder in a reserve fund to support additional service should projections change and the identified ALS response capacity be compromised significantly. **This is a resource to be used only if demand for services increase significantly above what is projected, and is not included as a plan for adding medic units.** Prior to any request for access to this reserve fund, a comprehensive medic unit analysis and regional discussion to look for alternative options would take place. Use of reserves requires review by the EMS Advisory Committee Financial Subcommittee, the EMS Advisory Committee, and the King County Council (usually through the normal budget process).

### **Recommendation 6:** Continue to refine ALS costs through effectiveness and efficiencies.

*Use efficiencies to refine ALS costs and increase effectiveness.*

As part of the ALS unit cost review process and the assessment to add no new units, the ALS Subcommittee recommended continued refinement of the ALS unit and agency costs throughout the 2014-2019 levy period. Two primary approaches were identified, although additional assessments are anticipated: conducting an ALS vehicle life-cycle assessment, and examining ALS calls to determine options for reducing ALS responses.

### **ALS Vehicle Life Cycle Assessment**

ALS vehicles are currently scheduled to be replaced at six-year intervals - three years as primary, three years as back up. In practice, the schedule varies among ALS agencies, with some using the six-year interval, while others average ten. Although all ALS agencies showed great interest in maximizing the replacement cycle, concerns were voiced about the magnitude of moving from a six-year cycle to a 10-year cycle for some agencies. The ALS Subcommittee agreed it was reasonable to recalculate the Equipment Allocation using an eight-year medic unit life cycle, and conduct a comprehensive medic unit life-cycle analysis with adjustments to the allocation based on results of the analysis.

### **ALS Response Analysis**

During the medic unit analysis process to determine projected needs for the 2014-2019 levy period, subsets of ALS calls were identified that could be better served by a non-ALS response. The ALS Subcommittee recommended a thorough examination of these ALS calls (with Seattle) to determine options for reducing these ALS responses.

## **Recommendation 7: Inflation annual costs with a Compound Inflationator.** *Continue to use the compound inflationator for calculation of the ALS unit allocation increases during the 2014-2019 levy.*

A critical component of the ALS unit allocation, and subsequently the EMS Financial Plan, is the use of an appropriate inflationary index that will adequately cover costs throughout the levy period. After thoroughly examining historical costs and inflationary trends, the ALS Subcommittee recommended continued use of the compound inflationator used in the 2008-2013 levy period with a slight amendment that uses CPI-W instead of CPI-U for wage-related costs and Producer Price Index (PPI) Commodities (Ambulances) for vehicle costs.

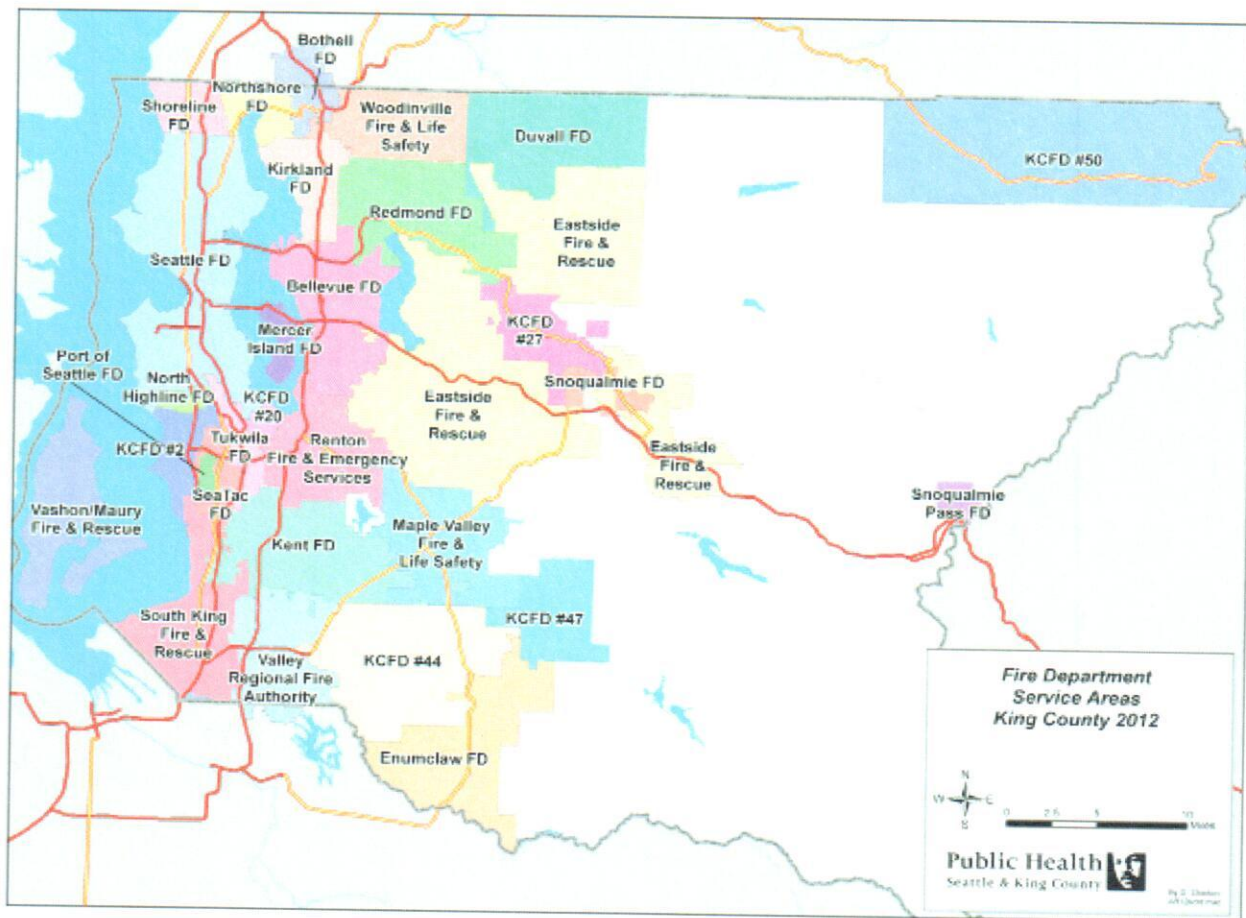
<b>ALS Cost Categories</b>	<b>Inflationators (2014-2019 Levy Period)</b>
Salary/Wages	CPI-W + 1%
Overtime	CPI-W + 1%
Benefits	Weighted Average
Medical Supplies and Equipment	Pharmacies & Drug Stores (PPI)
Office Supplies and Equipment	CPI-U
Uniforms, Fire & Safety Supplies	CPI-U
Dispatch	CPI-W + 1%
Communication Costs	CPI-U
Vehicle Maintenance Costs	CPI-W + 1%
Facility Costs	CPI-U
Training Costs	CPI-U
Misc. Costs	CPI-U
Equipment	PPI - Transportation Equipment (EMS)
Overhead	CPI-W + 1%

Total projected ALS service costs during the 2014-2019 levy period can be found on page 69 within the Finance Section of this report.

## PROGRAM AREA

### BASIC LIFE SUPPORT (BLS)

Basic Life Support (BLS) personnel are the “first responders” to an incident, providing immediate basic life support medical care that includes advanced first aid, CPR and AED use to stabilize the patient. BLS is provided by almost 4,000 firefighters trained as Emergency Medical Technicians (EMTs) who are employed by 30 different fire-based agencies throughout King County. EMTs receive more than 140 hours of basic training and hospital experience with additional training in cardiac defibrillation (electrical shocks given to restore a heart rhythm). EMTs are certified by the state of Washington and are required to complete ongoing continuing education to maintain certification. Like their ALS counterparts, EMTs are highly practiced and use their BLS skills daily.



Basic Life Support Agencies in King County

As the first-on-scene provider, BLS contributes significantly to the success of the Medic One/EMS system. **BLS agencies must arrive quickly** and provide effective and precise medical care. Although BLS is only partially funded through the EMS levy, it is an integral piece of the interdependency on which the King County response system is built.

In 2011, EMTs responded to over 164,000 calls for emergency medical care in King County. Figure 3 reflects the trend of steady rate of BLS calls over the past five years despite the continued increase in population in the region. The average response time of BLS units in the county is 4.9 minutes with units responding to over 77% of the calls in less than 6.0 minutes. EMTs are more likely to tend to younger patients (49.1% of BLS calls are 25-64yrs) for trauma conditions (25.6% of BLS calls), although they do not transport 24.2% of the time.

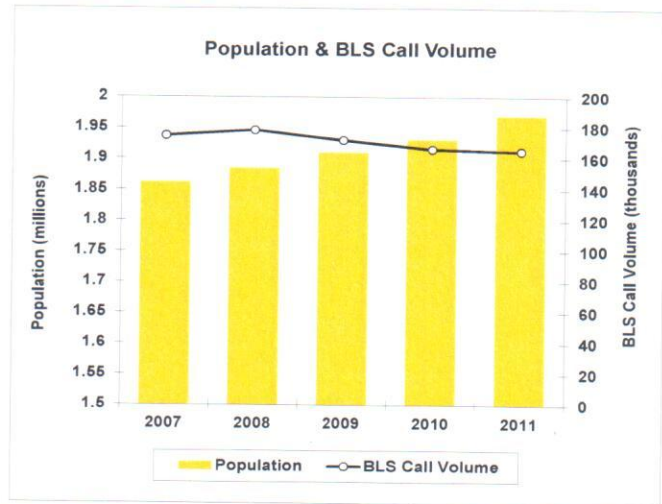


Figure 3: King County BLS population and call volume

## BLS SUBCOMMITTEE

The BLS Subcommittee focused its efforts on determining whether the BLS funding formula could be improved, and identifying service enhancements and efficiencies. As a result, the group played a prominent role in developing and supporting regional programs that address managing BLS demand, and increasing the role of BLS agencies in regional decision-making.

### The BLS Subcommittee adopted the following principles to guide its decision-making:

#### 1. **Maintain ALS as the Funding Priority**

Advanced Life Support (ALS) will remain the primary recipient of the Medic One/EMS levy and the first commitment for funding within the Medic One/EMS system.

#### 2. **Provide Funding for BLS Costs as Appropriate with Levy Funds**

Basic Life Support (BLS) will continue to receive limited EMS levy funds to support BLS agency costs as appropriate.

### The BLS Subcommittee recommendations are as follows:

**Recommendation 1:** Continue using current BLS funding formula. Base the annual increase in funds to BLS agencies 50% on Assessed Value (AV) and 50% on call volume. Add the individual agency increase to the base funding received in the previous year.

#### **BLS Funding Formula**

The BLS Subcommittee examined seven different funding alternatives to the 2008-2013 BLS funding allocation formula in an effort to thoroughly examine other distribution options. Criteria for review included stability, reliability, equity, and simplicity. Following this extensive review process, the existing formula was selected as the preferred option at this time.

## PROGRAM AREA - BLS - cont.

**Recommendation 2:** Continue with BLS allocation for King County EMS fund at same proportion of total levy amount. Provide BLS with a total allocation that is approximately the same percentage as the BLS allocation in the 2008-2013 levy period.

### **Total BLS Allocation**

For the 2008-2013 EMS levy, an increase in the total BLS allocation was adopted to cover a higher proportion of the local BLS costs. To determine the funding level, BLS agencies completed a standardized costing template to invoice specific EMS-related costs across the region. Stakeholders recognized that full funding of BLS costs was not feasible, and instead agreed to a funding level that existed within the 2008-2013 levy.

Due to current economic challenges related to the significant decline in assessed values in King County, the BLS Subcommittee advocated for continued support of a total BLS allocation amount that preserved at least the same proportion to the total EMS levy amount as planned in the 2008-2013 levy period (estimated at ~23%). BLS agencies recognized that although the Medic One/EMS levy supports primarily paramedic (ALS) service, a significant reduction in the BLS allocation would have a severely detrimental effect on this essential tier of the EMS system.

**Recommendation 3:** Support programs that specifically reduce impacts on BLS agencies. Support programs to address demand for BLS services and increase BLS role in regional decision-making.

Property tax revenues that support emergency medical services in King County have fallen markedly, resulting in reduced funding for BLS agencies. Despite these difficult conditions, the BLS Subcommittee realized an increased total BLS allocation was not reasonable. Instead, the group supported delivering programs on a regional basis to help reduce BLS costs and improve effectiveness.

### Programs that provide better support and engage BLS agencies:

- a. The **Regional Records Management System** will reduce costs incurred by agencies in managing records by having the EMS Division assume such responsibility, both administratively and financially.
- b. The expanded **BLS Efficiencies Program** will focus on providing the most cost effective and appropriate response and transport. This should help lead to a decrease in BLS responses (producing cost savings) and make units available for responding to other emergency calls. This will also result in reduced stress on the entire Medic One/EMS system and greater EMS system effectiveness. The Taxi Voucher Program and the Community Medical Technician (CMT) Pilot are both part of this program.

c. The **BLS Lead Agency** will coordinate BLS-related issues on a multi-agency local level, resulting in increased knowledge, proficiency and collaboration among agencies. The concept involves regional analysis of BLS unit placement, similar to the ALS analysis, cooperative procurement and data abstraction on a multi-agency cooperative level. The concept is intended to be piloted as a Strategic Initiative to demonstrate the value added concept to the system.

## **Recommendation 4:** Inflate annual costs using CPI-W + 1%.

*This inflator will be based on the forecast of the economist at the King County Budget Office.*

BLS agencies use the Medic One/EMS levy allocation to pay for a variety of EMS-specific items including personnel, equipment and supplies. Since these items have differing inflationary trends, no one specific inflator would accurately reflect their increasing costs. However, since most BLS costs are related to wages, the BLS Subcommittee determined that using a standard CPI inflator tied to wages (CPI-W) as forecast by the King County economist was preferable.

Total projected BLS service costs during the 2014-2019 levy period can be found on page 70 within the Finance Section of this report.

## PROGRAM AREA - Regional Services & Strategic Initiatives

### Regional Services and Strategic Initiatives

Regional Services and Strategic Initiatives support the direct service activities and key elements of the Medic One/EMS system. **Regional Services** are critical to providing the highest quality out-of-hospital emergency care available. These programs help tie together the regional medical model components by providing uniform regional medical direction, standardized EMT and emergency dispatch training, paramedic continuing education, centralized data collection, paramedic service planning and analysis, and administrative support and financial management of the regional EMS levy fund.

**Strategic Initiatives** are innovative pilot programs and operations that aim to improve the quality of Medic One/EMS services, and manage the growth and cost of the system. Once completed and proven successful, they may be incorporated into Regional Services as ongoing programs.

Strategic Initiatives have allowed the Medic One/EMS program in King County to maintain its role as a national leader in its field, and have been key in the system's ability to manage its costs.

One of the many reasons the EMS system in King County is so medically effective is the extension of regional programs across the different segments of the entire Medic One/EMS system. For example, injury prevention programs help ensure the safe use of car seats for infants and prevent falls among the elderly;

and CPR and Automated External Defibrillator (AED) programs help ensure that witnesses to cardiac arrests will have the necessary training to notify 9-1-1 quickly and provide initial care at the scene until EMTs and paramedics arrive.

The EMS Division oversees these Regional Services and Strategic Initiatives and plays a significant role in developing, administering and evaluating critical EMS system activities:

#### Regional Medical Control

Best medical practices drive every aspect of the Medic One/EMS system and are a main component in the system's success. Vital to this is a strong Medical Program Director to oversee all aspects of medical care and hold people within the system accountable. Responsibilities include writing and approving the patient care protocols for both paramedics and EMTs, approving initial and continuing EMT medical education, approving Criteria Based CBD Guidelines, undertaking new and ongoing medical quality improvement activities, initiating disciplinary actions, and working closely with the Central Region Trauma Council.

#### Regional Medical Quality Improvement

EMS Medical Quality Improvement (QI) is the practice of programmatic, scientific, and case-based EMS system evaluation to assure excellence in patient care. The Regional Medical QI Section partners with investigators in the EMS Division and at the University of Washington, allowing for collaboration across the academic and operational Medic One/EMS community. QI projects impact all components of the Medic One/EMS system and have shed light on a more streamlined approach to administering CPR (using just chest compressions and no rescue breaths), explored ways to improve challenges experienced by those with limited English proficiency





when calling 9-1-1 for help, and reinforced work with fire departments to improve ALS and BLS practices in the field.

### **Training**

**EMT Training:** The EMS Division provides initial training, continuing education and instructor/evaluator education for EMTs in King County. Through considerable research, coordination and communication among Medic One/EMS stakeholders and the Medical Program Directors, the Division develops the curricula that ensure the training and educational programs meet individual agency, Washington State and National requirements. The Division is the liaison between the Washington State Department of Health and the 29 EMS/fire agencies in King County, and relays continuing education, certification, and regulatory and policy changes to Medic One/EMS agencies.

**Dispatch Training:** Sending the appropriate resource in the appropriate manner is a critical link in the EMS system. The EMS Division provides comprehensive initial and continuing education training to dispatchers in King County, outside the City of Seattle. Developed by the EMS Division, King County dispatchers follow medically approved emergency triage guidelines called Criteria Based Guidelines (CBD). Criteria Based dispatch uses specific medical criteria, based on signs and symptoms, to send the appropriate level of care.



**CPR/AED Training:** The EMS Division offers programs to King County residents teaching them to administer life-saving techniques until EMS agencies arrive at the scene. This includes CPR classes with an emphasis on training teachers and students. Thousands of secondary school students receive instruction on CPR and AED training each year. In addition, a regional Public Access Defibrillation program encourages the registration and placement of AED instruments in the community within public facilities, businesses and private homes for high-risk patients.

### **Growth Management**

Managing growth reduces the stress on the Medic One/EMS system, contributing to the overall efficiency and effectiveness of the program. The region applies many different approaches to manage the rate of call growth in the EMS system and address the demand for services. Programs like the Communities of Care and SPHERE identify and target specific users of the EMS system to reduce “repeat” callers or the inappropriate calling for 9-1-1 services.

To reduce the demand of paramedic response, the region reviews the dispatch guidelines to safely limit the frequency with which ALS is dispatched. Significant focus is placed on providing alternative, more cost-effective responses that offer appropriate, high quality care to 9-1-1 patients with low acuity medical needs. The EMS Division works with partner agencies to provide injury prevention programs to appropriately install child seats, educate people about the dangers of distracted driving and mitigate potential falls among older adults.

### **Regional Leadership and Management**

Financial and administrative leadership and support to internal and external customers are roles the EMS Division plays to ensure the integrity and transparency of the entire system. The EMS Division actively engages with regional partners to implement the Medic One/EMS Strategic Plan, manage EMS levy funds, monitor contract and medical

## PROGRAM AREA - RS & SI - cont.

compliance and performance, identify and participate in countywide business improvement processes, facilitate the recertification process for the 4,000 EMT's in King County, and maintain the continuity of business in collaboration with Medic One/EMS stakeholders.

Included in this is regional planning for the Medic One/EMS system which monitors medic unit performance, the periodic assessment of medic unit placement and other system parameters. Regional planning analyzes medic unit demand projections and measures the impacts of regional programs, supported by ongoing data quality improvement activities.

### **Center for the Evaluation of Emergency Medical Services (CEEMS)**

The CEEMS section conducts research aimed at improving the delivery of pre-hospital emergency care and advancing the science of cardiac arrest resuscitation. It is funded by grants from private foundations, state agencies, and federal institutions. CEEMS is a collaborative effort between the EMS Division and academic faculty from the University of Washington who are recognized nationally for their contributions in the care and treatment of cardiac emergencies. Achievements made by this collective effort continue to improve outcomes from sudden cardiac arrest and advance evidenced-based care and treatment.

### **REGIONAL SERVICES SUBCOMMITTEE:**

The Regional Services Subcommittee dedicated a great deal of time systematically assessing the current Medic One/EMS regional programs and responsibilities, including reviewing each program, its benefits and its costs. Participants reviewed performance measures and outcomes to determine whether the programs and Strategic Initiatives were reaching their audiences and accomplishing their intended goals. This analysis also included review of the 2008-2013 Strategic Initiatives and whether they warranted integration into Regional Services as on-going programs within the EMS Division. Ideas for new Strategic Initiatives emerged as the various subcommittees debated efficiencies and effectiveness measures. The EMS Division worked with various Stakeholders to develop particular proposals, bringing ideas back to the Regional Services Subcommittee for review and consideration. All subcommittees were kept apprised as proposals evolved.

### **The Regional Services Subcommittee adopted the following principles to guide its decision-making:**

1. **Emergent Community Needs** Programs will focus on meeting the emergent community needs to maintain or improve standards of patient care.
2. **Medical QI and Patient Care** Medical Quality Improvement will be conducted to improve patient care and must be overseen by a physician.
3. **System Efficiencies** Resources will continue to be managed to achieve effectiveness and efficiencies that focus on:
  - a) Improving the quality of EMS services;
  - b) Managing the rate of growth; and
  - c) Containing costs with no degradation of services.
4. **Maintain Strategic Initiatives** Strategic Initiatives to meet the directives of system effectiveness and efficiencies will be maintained, and new initiatives will be created as appropriate.

The **Regional Services Subcommittee** recommendations are as follows:

## **Recommendation 1:** Continue delivering programs that provide essential support to the system.

*Such programs and services focus on superior medical training, oversight and improvement, innovation, data management, regional leadership and efficiencies.*

The Regional Services Subcommittee advocated for the continuation of programs that support the direct service activities and key elements of the Medic One/EMS system. Appendix A: Planned Regional Services on page 74 lists and describes these programs.

## **Recommendation 2:** Re-scope and enhance programs to meet emerging needs.

*Enhancements will broaden the reach and advance the goals of programs.*

Integral to maintaining any high quality Medic One/EMS system is making improvements and innovations in the management, scope and standards of core programs. Enhancements are recommended to broaden the reach of programs and advance the goals of the programs.

## **Recommendation 3:** Eliminate some services that are no longer needed or can be better provided on a local basis.

*Elimination of services that duplicate efforts or can be assumed by another agency offers better efficiencies.*

<b>Program</b>	<b>Rationale for Discontinuing</b>
Targeted CPR Training Regional Service	Numerous hospitals provide such outreach to patients and their families
Preschool Injury Prevention Program Regional Service	Continues through other Fire Departments
Critical Incident Stress Management (CISM) Regional Service	Reduced requests for the program can be handled more efficiently and effectively at the agency level
All Hazards Management Preparation Strategic Initiative	Efforts to coordinate Emergency Management are currently undertaken by ALS agencies and Public Health - Seattle & King County Preparedness
Injury Prevention Grant Writer Strategic Initiative	Eliminated due to lack of revenues generated through the position

## PROGRAM AREA - RS & SI - cont.

### **Recommendation 4:** Continue audits by King County Auditor's office.

*Consistent assessments help ensure the regional system is operating efficiently and effectively. The system directly benefits from such audits.*

The King County Auditor's Office currently conducts an annual audit of EMS, as established by Ordinance as part of the 2007 Medic One/EMS levy approval package. This review was designed to ensure financial and programmatic operations were managed in accordance with the Council-adopted levy policies and financial plan. Each audit resulted in positive findings along with recommendations that were practical, reasonable and once implemented, encouraged enhanced EMS fund management and additional system efficiencies.

The Regional Services Subcommittee unanimously supported consistent assessments of the EMS system. Based upon the positive reviews from the 2008-2011 audits, the Subcommittee recommended that the King County Auditor continue audits on a periodic basis. Additionally, the Subcommittee requested examining and enhancing the current quality improvement and system assessment programs. This will require convening regional partners to discuss the system's structure from an operational and clinical perspective to identify areas for continuous improvement and the standards for measuring system performance.

### **Recommendation 5:** Convert 10 successful/proven Strategic Initiatives into Regional Services.

*These programs enhance dispatching, injury prevention, and the timeliness and quality of EMS data, increasing EMS system effectiveness.*

Strategic Initiatives that achieved their intended outcomes and/or demonstrated efficacy were recommended for incorporation into Regional Services as ongoing programs. Appendix A: Planned Regional Services on page 74 lists and describes such programs.

### **Recommendation 6:** Initiate three new Strategic Initiatives.

*Areas identified include targeting repeat callers, reducing the inappropriate use of EMS services, and better supporting and engaging BLS agencies with economic and quality improvement opportunities on a local level.*

#### **1. Vulnerable Populations**

Provides EMS personnel with better tools to work with patients from vulnerable populations. This is a multi-year evaluation to assure that EMS care is the best possible, regardless of race, ethnicity, age, socio-economic status, culture, gender or language spoken.

#### **2. Regional Records Management System**

Transfers the management of and financial responsibility for records management systems from individual agencies to the EMS Division.

### **3. BLS Lead Agency**

Tests the concept of designating a lead BLS agency to coordinate BLS-related issues for economic and quality improvement. This could better engage several smaller BLS agencies on a local level, increasing quality improvement, providing greater depth of knowledge and proficiency among BLS crews, and offering comprehensive interaction with other lead BLS agencies and the EMS Division. The concept anticipates a lead agency would handle combined efforts of data abstraction and analysis from a multiple agency perspective; provide BLS unit analysis similar to the successful regional ALS unit analysis; assist with coordinated case review; help organize procurement and medical equipment standardization; and coordinate other economic and quality improvement focus areas that could provide regional benefit if conducted on a regional and multi-agency level, rather than independent and local levels.

## **Recommendation 7: Retool three current Strategic Initiatives.**

*Enhancements will support a greater range of continuous improvement projects to supplement current system performance, and better manage demand and expected growth in request for BLS assistance.*

### **1. BLS Efficiencies**

Further develops strategies to manage current demand and expected future growth in requests for BLS assistance. Will focus on providing more cost-effective and appropriate response and transport, and minimizing unnecessary transport.

### **2. EMS Efficiency & Effectiveness Studies**

Funds can be used to support a range of continuous improvement projects to supplement current system performance. For the 2014-2019 levy, this Initiative is revamped with additional focus on performance measures/outcomes/metrics. It also makes funding explicitly available to EMS agencies via grants to develop and implement projects related to improving operational efficiencies and effectiveness.

### **3. Community Medical Technician (CMT)**

CMTs are sent on lower acuity calls in non-transport capable units to provide basic patient evaluation, assistance, specific BLS treatment on scene, and arrange for transport if medically necessary. CMT's may also refer patients to community services such as the One Step Ahead fall prevention program, and other senior information and assistance programs. The levy proposal includes slowly phasing in three regional units to help the region further examine how to build capacity for future growth, along with reserves for an additional two unit, should the project be successful.

## **Recommendation 8: Inflate annual Regional Services and Strategic Initiatives cost using CPI-W + 1%.**

*This inflator will be based on the forecast of the economist at the King County Budget Office.*

Inclusion of an appropriate inflationary index that will adequately cover Regional Service and Strategic Initiative costs throughout the levy period is essential. Since most costs are related to wages, the Regional Services Subcommittee determined that using a standard CPI inflator tied to wages (CPI-W) as forecast by the King County economist was preferable.

Total projected Regional Services and Strategic Initiative costs during the 2014-2019 levy period can be found on page 70 within the Finance Section of this report.

## **Recommendation 9:** **Initiate an Independent Study for the Provision of ALS Medic One services.**

*This study will provide for independent analysis of the current EMS system and delivery of ALS services, as well as service needs in the future.*

The inclusion of an independent study to examine the delivery of ALS services within the countywide regional tiered EMS system, as well as future ALS services needed will help inform development of the 2020-2025 EMS Strategic Plan. The EMS Advisory Task Force, the Regional Policy Committee, and the King County Council shall review and approve the scope of work for the study. This independent study shall include an analysis of the appropriate number of ALS providers, including the City of Kirkland and other potential providers, and shall address governance and cost impacts on the EMS system. Any study recommendations must provide for linkages to BLS and no deterioration of medical care and outcomes. This study shall be concluded, reviewed by the EMS Advisory Task Force, the Regional Policy Committee, and the King County Council and recommendations forwarded to all stakeholders by September 12, 2016.

## **Recommendation 10:** **Initiate an Independent Study to Develop a Scope of Work and a Staffing Model.**

*This study will provide for an independent study to develop scopes of work and staffing models to ensure the long term consistency of the planned new programs.*

Three new strategic initiatives are recommended during the next levy period: Vulnerable Populations, Regional Records Management System, and BLS Lead Agency. The Vulnerable Populations Program has a developed scope of work and staffing model and is retooled for the 2014-2019 levy period. The inclusion of an independent study to develop scopes of work and staffing models for the Records Management System and the BLS Lead Agency Program should ensure the long term consistency of the planned new programs. The EMS Task Force shall review and approve the scope of work for the study to be conducted and shall review the recommendations on the final study report.

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN

### 2014-2019 FINANCIAL PLAN OVERVIEW

The EMS Advisory Task Force recommended a financial plan based on programmatic needs developed by the subcommittees. This financial plan builds on key services from the previous levy, reviewed and decreased expenditure levels as appropriate, and was able to incorporate more services into a lower expense amount than if the current plan had been continued into the 2014-2019 levy period.

The following table summarizes the estimated expenditures, required revenues and related levy rate for the 2014-2019 levy period.

<b>2014-2019 Medic One/Emergency Medical Services Levy</b>	
In Millions	
Oct 2012	
Expenditures	\$682.0
Reserves*	\$12.4
<b>Total</b>	<b>\$694.4</b>
Buy-down funds from 2008-2013 levy	\$21.3
Revenues needed for 2014-2019 levy	\$673.1
<b>Total Revenues with Buy-down</b>	<b>\$694.4</b>
<b>Levy Rate (with buy-down)</b>	<b>33.5 cents</b>

\*Including conversion of required fund balance to cash flow reserve

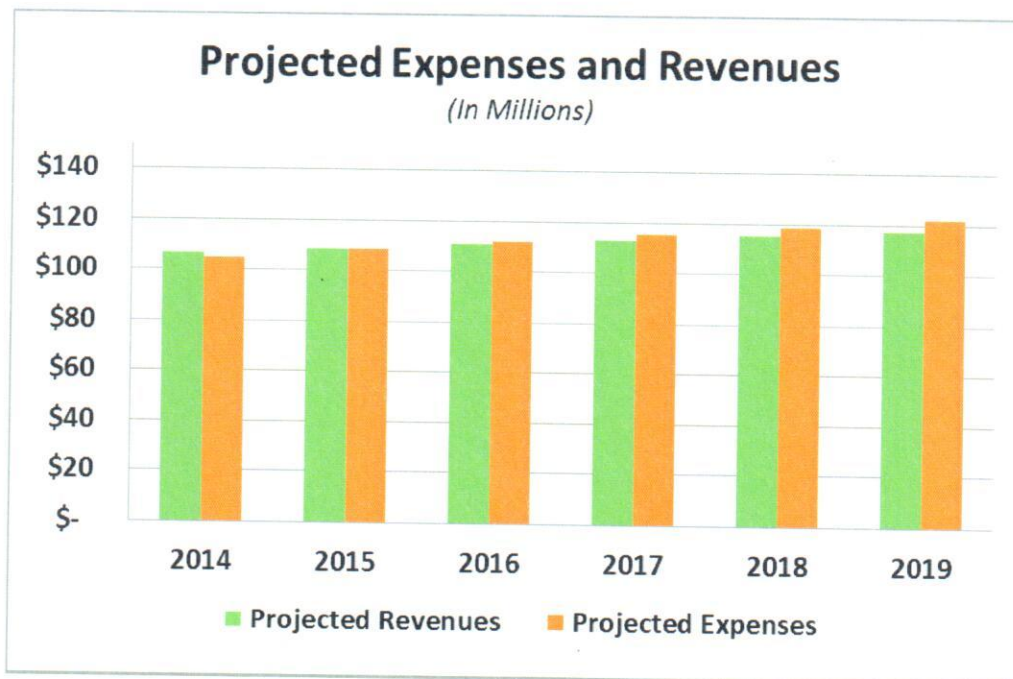
The Medic One/EMS 2014-2019 Financial Plan is based on minimal increases in **expenditure** levels from 2013. Expenditure levels were reviewed and, if appropriate, reduced from 2013 levels. The overall increase from 2013 to 2014 is 1%. Key components include:

- Decreased ALS Operating Allocation (based on 2011 actual ALS costs); decrease of 2% (approximately \$35,000 per unit in 2014) from the cost of continuing the 2008-2013 funding level in the new levy period;
- Reduced ALS equipment allocation by extending the lifespan on key equipment; decrease of 15%;
- Reduced BLS allocation to allow annual increase of CPI + 1% and remain at an overall levy amount similar to the BLS portion of the 2008-2013 levy;
- Incorporation of Regional Services conversion and elimination of appropriate programs;
- Lowered level of funding for Strategic Initiatives planned for 2014-2019; and
- Yearly increases in expenditures based on inflation indices (see Recommendation #3).

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

**Reserves** are continued for the 2014-2019 levy period. The EMS Division will continue to refine reserve policies as required and needed.

- Reserves and Contingencies were included in the 2008-2013 financial plan. The King County Auditor's Office found that the original usage policies limited agencies' ability to access reserves, and recommended that the region revise reserve amounts and access policies.
- The 2014-2019 levy planning process led to modest changes and simplified reserve categories.
- To comply with new King County Reserve policies adopted after the subcommittees completed their review, the End Fund Balance has been converted to a Cash Flow reserve.



**Revenues** are planned to cover expenditures across the 2014-2019 levy period.

- Revenues collected in the early years of the levy cover expenditures planned for the later years of the levy.
- Revenue needs were reduced by including carryover of approximately \$21 million from the 2008-2013 plan, which is roughly equivalent to 1.6 cents of levy rate. This reflects aggressive management of funds over the span of the 2008-2013 levy, based particularly on the knowledge that reduced AV levels would require a higher levy rate to maintain current services.
- Revenues are forecast at 65% confidence interval to reduce the risk of revenue under-realization to the EMS system.

The Strategic Plan anticipated expenditures, reserves and revenues are annually reviewed and updated by the EMS Advisory Committee Financial Subcommittee, the EMS Advisory Committee, and the King County Council (usually through the normal budget process).



## BACKGROUND

Regional EMS partners and Stakeholders expect accountability and transparency in the management of EMS levy funds. The EMS Division administers these funds in a responsible manner to meet system goals and objectives. To do so, it relies on EMS partners across all aspects of the system to manage costs, increase operational efficiencies, and manage growth in demand for services. During the 2008-2013 levy period, this shared fiscal responsibility enabled the region to continue to provide essential emergency medical services and successfully adapt to the financial conditions imposed by the economic downturn. Confirmation of the region's broad-based commitment to financial stewardship and integrity is evident in the King County Auditor's Office past four annual reviews.

The following **guiding principles and practices** were used in the development of the 2014-2019 Financial Plan:

- The Medic One/EMS levy will support the continuation of quality medical services and supply adequate funding to provide these services;
- The EMS Division will continue to provide oversight and transparency of system finances;
- Advanced Life Support (ALS) services will remain the priority of the Medic One/EMS levy;
- Basic Life Support (BLS) services will be funded through a combination of local taxes and Medic One/EMS levy funds;
- The EMS Division is responsible for the coordination and facilitation of collaborative activities necessary to assure the success of the regional strategic and financial plans; and
- The EMS Division and regional partners will continue to evaluate the efficacy and funding of programs from a system-wide perspective.

### Financial Stewardship:

The EMS Division managed "levy resources effectively to provide full funding for advanced life support (ALS) services and continued funding of all four EMS programs for the duration of the current levy."

Financial Review & Compliance Audit of the 2011 EMS Levy

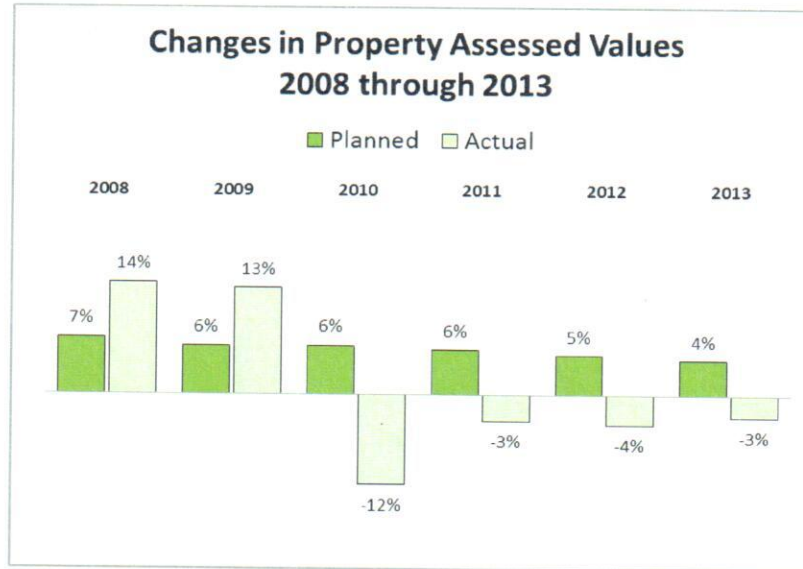
<http://www.kingcounty.gov/operations/auditor/Reports/Year/2012.aspx>

## EMS 2008-2013 CHALLENGES

Revenue Reductions: One key challenge the region faced during the 2008-2013 EMS levy period was the large drop in Assessed Valuations (AV) not envisioned when the levy was planned in 2006. For the first time in the history of the levy, actual funds raised by property taxes decreased over the six 6-year levy period. Projected property AV for 2013 is anticipated at 10% less than actual 2008 AV, and 33% less than the level planned for the 2008-2013 levy.

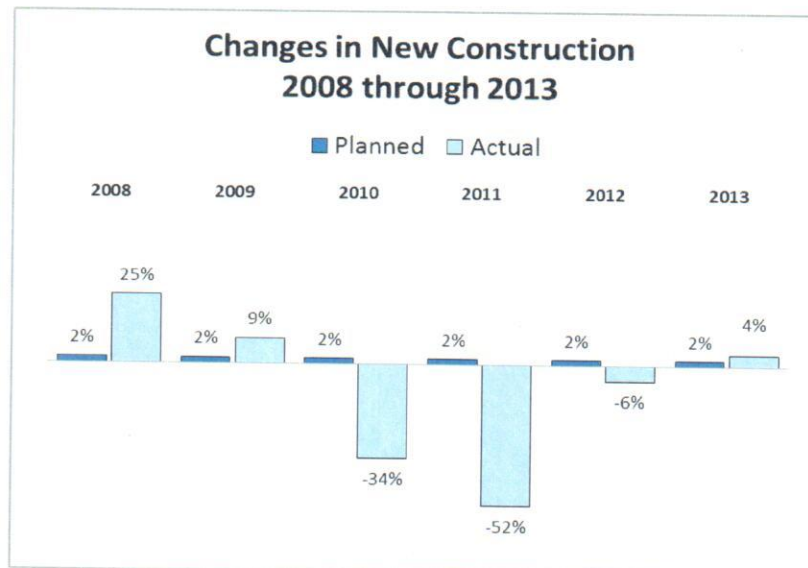
## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

The following chart shows the difference between planned (2008 levy plan) and actual assessed valuation changes over the 2008-2013 levy period.

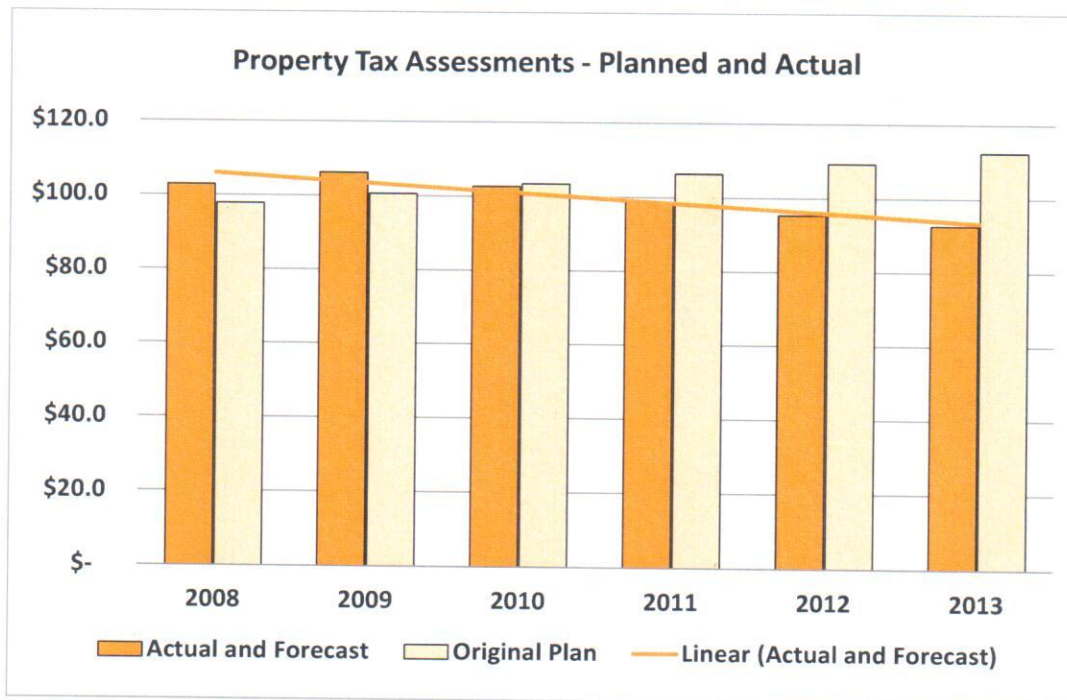


The overall property tax assessment (the amount that is billed to taxpayers) can increase at a level of 1% a year plus new construction. New construction values allow the assessments to grow at a higher rate and are an important part of the calculation of the amount collected. The original 2008-2013 levy plan assumed total property tax increases at 3% per year; this includes 1% from existing properties and 2% from new construction. During the economic downturn, new construction AV dropped drastically from a high of \$8.1 billion in 2009 to a low of \$2.4 billion in 2012.

The following chart shows the difference between planned (2008 levy plan) and actual new construction changes over the 2008-2013 levy period.



The reductions in AV were so significant that they capped the EMS levy at 30 cents. This means that property taxes, rather than increasing, actually decreased. The Medic One/EMS system met this financial challenge, first and foremost, by prioritizing its use of funds without negatively impacting key services and outcomes. The following chart shows planned and actual property tax assessments for the 2008-2013 levy period.



**Unanticipated Costs:** Due to factors not known during levy planning in 2006, ALS agencies experienced unique costs that were not part of the unit methodology used for allocating levy funds. Although the Financial Plan included contingencies and reserves, the strict usage policies prevented them from being applied toward such unique/one-time costs. This was mirrored in the King County Auditor's Office 2009 recommendations and provided an excellent opportunity to reexamine and adjust financial policies to enhance the management of the EMS levy funds. The EMS Division worked with ALS agencies to better define eligible ALS costs and reserve categories, and develop an approach to fund unanticipated costs experienced by ALS agencies.

**Reduced Allocations:** The economic downturn not only reduced AV (which reduced revenue), but also resulted in reduced inflation. Since the allocations are tied to published inflators, this reduced allocations for all program areas, posing a challenge to some agencies. For example, the KC EMS Fund BLS allocation was projected to total \$93 million over the 2008-2013 levy. Actuals are \$91 million, or \$2 million less than planned. All impacted parties, including ALS and BLS agencies and the EMS Division, managed within these reduced allocations. The net impact, however, was expenditure reductions that will ultimately meet, if not exceed, declines in revenue.

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

The region addressed the challenges through aggressively managing expenditures. This included focusing on programs and initiatives that manage the growth of services (particularly ALS services which are fully funded by the EMS levy).

### EMS FINANCIAL POLICIES

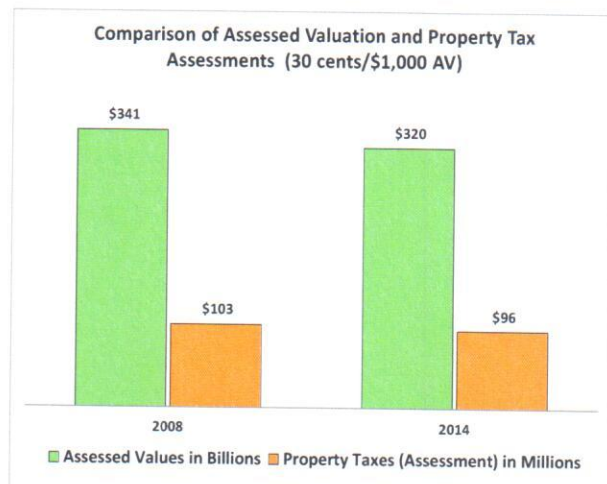
Financial policies for the 2008-2013 levy period were located throughout the Strategic Plan and referenced in many different documents. As reserves were refined, and financial policies were further collected and clarified, the EMS Division developed a written EMS Financial Policy (PHL 9-2). This policy document includes definitions, policies, and procedures with actions required by EMS Division and EMS agencies. Worksheets and reporting forms are included as appendices. Refining and placing financial policies in one location assisted with the transparency of the regional system services and finances. Key areas covered by the Financial Policies include:

EMS Financial Policies:
<b>Oversight and management</b> of EMS levy funds;
Methodology for fairly <b>reimbursing ALS agencies</b> for eligible costs, including responsibilities by both the EMS Division and ALS agencies related to Operating and Equipment Allocations;
<b>Required reporting</b> by ALS agencies with review and analysis by EMS Division;
Methodologies for <b>BLS, Regional Services and Strategic Initiatives</b> funding;
<b>Regional Services and Strategic Initiatives management</b> ; and
<b>Review and management of reserves</b> and designations including program balances.

### EMS 2014-2019 ANTICIPATED CHALLENGES

#### Projected Assessed Valuations:

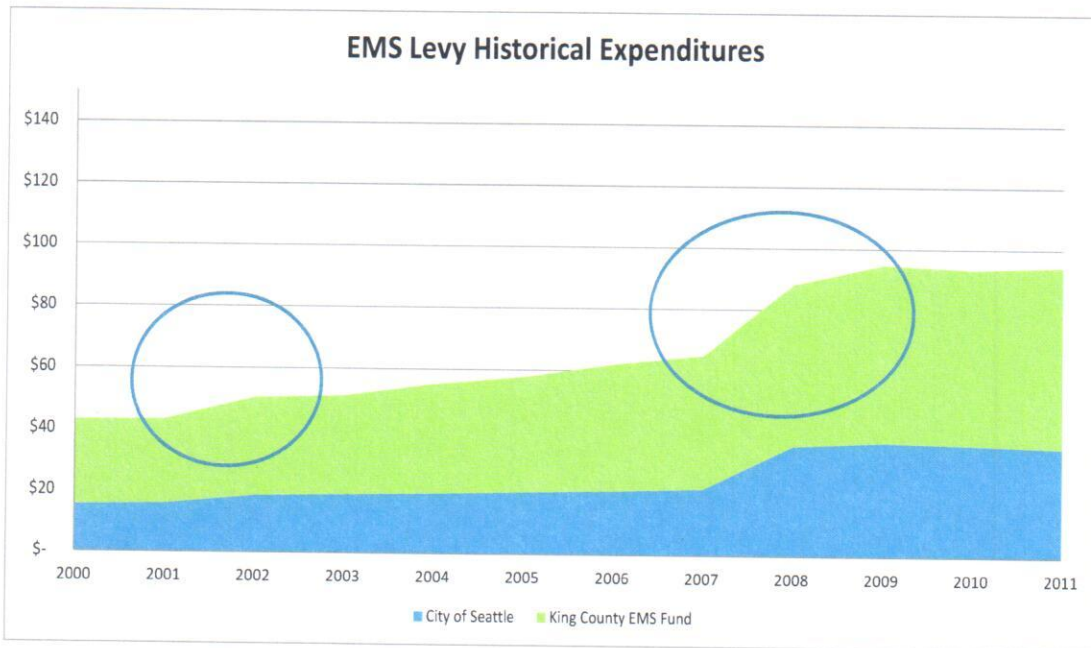
Assessed valuations in 2014, the first year of the proposed new levy, are projected to be 6% less than assessed valuations in 2008, a difference of approximately \$20 billion. The 30 cent levy rate from the 2014-2019 levy will not bring in sufficient funds to continue EMS services from the 2008-2013 levy. While the 30 cent levy rate in 2008 resulted in an assessment of \$103 million, the same levy rate in 2014 is projected to raise \$96 million. **This 2014 amount at 30 cents is \$7 million less, or 6.5% less, than the amount raised at 30 cents in 2008.**



Sensitivity to Cost Increases:

The EMS system is sensitive to the costs of services provided by government agencies. In addition, King County has a goal of keeping the growth of services to the cost of living (CPI) plus increased population. This not only requires managing the costs related to existing services, but also managing growth of services.

Many of the past levy periods have incorporated significant new programs. The last levy period also included a significant increase in support for BLS agencies. The following chart shows increases in the last two levy periods. There was an overall increase of almost 17% between the levy ending in 2001 and the beginning of the 2002-2007 levy. There was a 36% increase between the end of the 2002-2007 levy and the beginning of the 2008 levy. There was a 43% cumulative increase over the two year implementation of new programs, services, and BLS funding (through 2009).



Division of Revenues: Property tax revenues are distributed proportionately between the City of Seattle and the King County EMS Fund based on Assessed Valuation (AV). Change in distribution can affect either fund. The division of AV remained stable at approximately 35.4% from 2002-2009. However, the economic downturn, with its reduced AVs, changed the traditional proportion. This was due to the AVs in the balance of King County, particularly the outlying areas, dropping more than the City of Seattle.

<b>Comparison of Division of AV across Levy Periods</b>			
<i>Average % of Assessed Value</i>			
	2008-2013 Planned	2008-2013 Actuals	2014-2019 Forecast
City of Seattle	35.69%	36.19%	36.42%
KC EMS Fund	64.31%	63.81%	63.58%

## **Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.**

Maintaining Services: Another key challenge was maintaining key services and innovative strategies in light of continued reduced revenues, potential growth in demand, expenditure growth expectations, and uncertainty (particularly since the levy would be projecting many years out – through 2019). The EMS system is known for the delivery of effective programs that can be implemented across the region, and the challenge will be how to maintain this culture of excellence, as evidenced by improved patient outcomes.

Uncertainty: With the economic downturn, health care reform laws, and other pending changes in services, the 2014-2019 levy period presented additional challenges not present in previous levy planning processes. Again, these unknown elements create challenges in anticipating the impacts on the EMS system so many years in advance.

### **FINANCE SUBCOMMITTEE**

New to the levy planning process was the addition of the Finance Subcommittee to assess the programmatic recommendations developed by the other subcommittees, and provide financial perspective and advice to the Task Force. As the ALS, BLS and Regional Services Subcommittees each developed its own set of recommendations specific to their program areas, the Finance Subcommittee reviewed the proposals as a whole package, rather than as individual and independent pieces, to ensure it was well balanced and financially prudent.

The Finance Subcommittee identified transparency and accountability, which encompassed the judicious use of funds entrusted to EMS by the taxpayers and inclusion of clear financial policies, as a requirement of the 2014-2019 Strategic Plan. It reviewed economic forecasts, proposed expenditures, determined which indices to use to inflate annual costs, and examined policies and procedures.

In an effort to appropriately evaluate components of the Task Force's Proposal, the Finance Subcommittee used the following criteria to guide policy decisions:

1. Maintain Integrity of the System
2. Provide Financial Stability
3. Ensure Financial Stewardship
4. Secure Broad-based Support
5. Sustain Public Consistency

As programmatic components were evaluated and policy decisions were made, the Finance Subcommittee used these criteria as the standard of comparison. Did a program have broad-based support? Did a policy contribute to building financial stability? Embedded in the Task Force Recommendations, these policies are the basis for maintaining the Medic One/EMS system and building a secure financial foundation to pay for these critical services.

## ADDRESSING EMS 2014-2019 ANTICIPATED CHALLENGES

The region developed several strategies to address the variety of anticipated financial challenges. Some were implemented in the 2008-2013 levy period; other strategies focused on the 2014-2019 levy period. They included:

- Aggressively managing resources and saving funds from the 2008-2013 levy to “buy-down” the levy rate for the 2014-2019 levy;
- Managing of growth of services;
- Creating efficiencies to continue key existing priorities and programs while allowing room for a limited number of new programs and services; and
- Addressing uncertainty.

Aggressively Managing Resources: The EMS system in King County has a long history of looking for efficiencies within the system and saving funds when possible. With the economic downturn, the system became more aggressive in this strategy. Programs were prioritized, scopes of projects were adjusted, efficiencies were sought. Combined with management in growth of services during the 2008-2013 levy period, \$21 million was identified to carry forward into the 2014-2019 levy period and to reduce the levy rate to support planned 2014-2019 services. **This is forecast to reduce the rate to support planned expenditures by 1.6 cents – from 35.1 cents to 33.5 cents.**

Management of Growth of Services: The region is also known for innovative strategies related to managing growth of services. During the 2008-2013 levy period there was continued refinement of existing strategies (such as dispatch criteria guideline revisions), renewed focus on other strategies (such as the Telephone Referral Project), and the addition of new strategies (such as the Taxi Voucher project). The 2014-2019 levy continues to support proven strategies and initiatives that manage growth of services.

Priorities and Efficiencies: In addition, levy planning focused on prioritizing services and determining services that could be sunsetted (either because they were not producing or had served their purpose and been outgrown by the system). There was also a focus on providing existing services in more cost effective ways. This allowed the system to increase some key programs – such as Cardiac Case Review – while keeping increased expenditures for 2014 (the first year of the new levy) to less than projected inflation (CPI).

### Financial Stewardship:

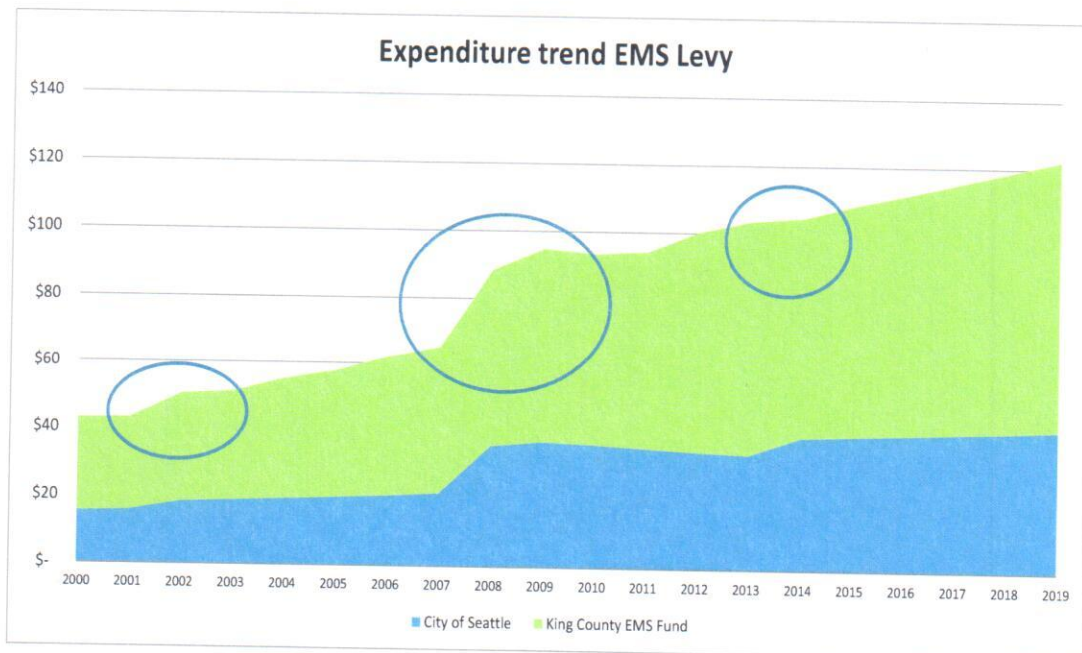
The 2014-2019 Financial Plan supports a budget to continue current services and yet allow additional services needed to meet future demands at a funding level **less than** what it would have cost to continue forward with the 2008-2013 plan.

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

**Uncertainty:** To address uncertainty and the fact that the levy is planning many years into the future, several different strategies were used. This included adoption of a 65% confidence interval for financial forecasts – this means that there is a greater chance that the EMS system will have sufficient funds to cover planned expenditures. In addition, the levy includes reserves for unplanned and unanticipated events. Key reserves address operational costs, equipment costs (services or equipment not anticipated; inflation at rates higher than anticipated), risk, and capacity

With previous levies, substantial increases were implemented during the first years of each new levy. However, based on current economic circumstances, the region recognized that 2014-2019 levy was not an appropriate time to expand the system, or expand support for BLS agencies. Rather, it was a time to closely review the priorities of the services being provided. Proposed new services and programs are minimal and offset by reductions, resulting in a plan that is less than if the current plan were continued with inflation.

The following chart shows historical and projected levy expenses with the transition years between levies highlighted. In contrast to the last two levy periods, the 2014-2019 plan flattens expenses while maintaining critical services to the region.



The overall result of these strategies is:

- Savings from 2008-2013 levy period that allows “buy-down” of levy rate by 1.6 cents (from 35.1 to 33.5 cents);
- Increase between 2008-2013 levy period and 2014-2019 levy period held to less than the rate of inflation; and
- Overall increases in the 2014-2019 levy period projected at less than the King County growth goal – less than CPI + new population. The proposed plan, including the reduction from 2013, is less than this estimate.



## FINANCE RECOMMENDATIONS

The Finance Subcommittee grappled with the various financial challenges facing the region and developed the following recommendations:

### Recommendation 1: Use a 65% confidence level for financial modeling purposes.

*Using a 65% confidence level reduces the risk to the levy and its programs that cuts will be required as the result of actual revenues failing to meet expectations during the levy period.*

The Finance Subcommittee considered continuing with the 50% confidence interval used for the 2008-2013 levy for forecasting or using a 65% confidence interval. Given the volatility in the economy, the group recommended using the 65% confidence interval. This is also consistent with King County policy (KCFC2010-09.1) requiring the Office of Economic and Financial Analysis (OEFA) to present official County forecasts at the 65% confidence level. Confidence level is defined as the chance that actual revenues will meet or exceed forecasted levels. Planning at this level reduces the risk associated with actual EMS property tax revenues coming in lower than forecast.

### Recommendation 2: Continue using financial policies guiding the 2008-2013 levy, with small adjustments.

*The financial policies guiding the 2008-2013 levy period have provided a strong foundation for the 2014-2019 levy and should remain. Continue with current financial policies; review and update to be consistent with King County financial policies as feasible within funding constraints.*

#### Management and Oversight of System

The EMS Division is responsible for managing the levy fund in accordance with the EMS Strategic Plan, the EMS Financial Plan and ordinances as adopted by the King County Council. Financial policies will continue to be updated to document and meet system needs. The Financial Plan and policies will adapt to new King County Financial Policies within limitations of adopted funding levels. The Public Health Chief Financial Officer provides general oversight. EMS Division responsibilities include the review and evaluation of allocations as well as the management of Regional Services and Strategic Initiatives as reflected in EMS Strategic Plan, EMS Financial Plan and associated King County ordinances. Strategic Initiatives are considered projects with lifetime budgets. Strategic Initiative annual budgets are considered cash flows and can be adjusted to meet project needs over their lifetime.

## Financial Integrity:

The EMS Division managed “their respective EMS programs efficiently to carry forward significant savings for the 2014 to 2019 EMS Levy cycle while maintaining excellence in the quality of EMS services.”

Financial Review & Compliance Audit of the 2011 EMS Levy  
<http://www.kingcounty.gov/operations/auditor/Reports/Year/2012.aspx>

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

### Management of ALS Resources

Using standard unit allocations, with separate allocations for operating and equipment costs, provides a fair and reasonable funding of ALS. Funds are managed locally by ALS agencies and maintained separately from other accounts. ALS agencies are expected to provide ALS services within the unit allocation. ALS agencies develop and report equipment replacement plans to the EMS Division. These plans account for all expenditures of levy funds, equipment purchased with other funds (such as grants) and show that adequate amounts are reserved for future equipment replacement. Reimbursement of eligible costs by the EMS Division and reporting of costs and revenues by ALS agencies. On a limited basis, ALS agencies can borrow against future year's allocations. The EMS Division conducts annual reviews of allocations and cost reporting.

### Reserves and Designations

Reserves and designations are managed in accordance the EMS strategic and financial plans and associated ordinances as adopted by King County Council. Agencies are encouraged to use program balances to cover variances in expenditures patterns that may occur from year to year including one-time expenses. Program balances, implemented in the 2002-2007 levy period, are the portion of operating allocations that an agency chooses to carry forward to cover expenses in future years. Examples of use include labor settlements that may include back-wages, variances in number of paramedic students sent to Harborview, or smaller one-time costs.

## Recommendation 3: Continue the inclusion of reserves with strict access and use policies.

*Fine tune reserves to better cover large one-time and unanticipated 2014-2019 needs.*

Reserves were first included explicitly in the 2008-2013 Medic One/EMS Financial Plan. Regional partners wanted to ensure that funds were available to address emerging needs, particularly larger one-time expenses and unexpected/unplanned expenses. Reserves were initially developed as a percentage of program budget, but were then changed to specific categories in the finalized 2008-2013 Financial Plan. Based on recommendations from the King County Auditor's Office in 2009, reserve amounts were refined and additional reserve categories were developed to include key areas not included in the initial reserves. The result was the development of 12 separate reserves.

The 2014-2019 Financial Subcommittee made recommendations, as highlighted below, that include streamlining the current 12 reserves into four main categories of reserves – ALS capacity, equipment, operational and risk abatement reserves, adding a reserve for potential new CMT units (pending outcome of assessments of pilot CMT projects), and continuation of required fund balance. (With new King County reserve policies, this is proposed to be changed to a cash flow reserve.)

### 2014-2019 Proposed Reserves

Key elements for the 2014-2019 levy reserves include:

- Adequate and reasonable reserves should be used to fund unanticipated or one-time costs;
- Maintain strict access policies, including review by the EMS Advisory Committee;
- Reconfigure reserves to incorporate anticipated needs and combine as appropriate;

- Consider all reserves operational; may be replenished from other sources including fund balance;
- If use of reserves in any one line item exceeds the budgeted amount, funds from other reserves could be used based on review and approval of the EMS Advisory Committee;
- To address emerging needs during the levy period, reserves can be reconfigured, amounts adjusted, and new reserves established with review by the EMS Advisory Committee; and
- Within limitations of levy funding, reserves can be adjusted to meet King County policies as they are adopted.

### Proposed Reconfiguration of Reserves

By combining the existing 12 ALS reserves into categories, each element was able to be funded at a slightly lower amount without increasing the overall risk to the regional system because amounts from other elements within the same reserve category could be used as needed.

The relationship of the 2008 -2013 levy reserves to the proposed 2014-2019 levy reserves is shown below.

2008-2013 Levy	2014-2019 Levy
Facilities Call Volume/Utilization Disaster Relief Contingency	<b>ALS Capacity Reserves</b> <i>Costs associated with managing capacity (including both temporary or long term capacity increases)</i>
Vehicle/Chassis Obsolescence Communications Medical Equipment	<b>ALS Equipment Reserves</b> <i>Costs associated with changes in equipment costs and obsolescence</i>
Salary/Wage Contingency Diesel Cost Stabilization Pharmaceuticals Dispatch/Communications Excess Backfill for Paid Time Off (PTO) Paramedic Student Training Outstanding Retirement Liability	<b>ALS Operational Reserves</b> <i>Operational costs above amounts included in allocation</i>
Risk Abatement	<b>ALS Risk Abatement</b> <i>Significant unplanned circumstances and uninsured/underinsured motorists</i>

More detail on reserves can be found in Appendix E: Planned Reserves on page 83.

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

### Recommendation 4: Continue the practice of adjusting standard allocations for inflation.

*Refine some inflationary measures to improve accuracy.*

Allocations in the 2008-2013 levy were increased by inflators with specific indices. These adequately projected costs, although there were some areas where the indices could be better matched. The King County Auditor's Office recommended changing the index used to inflate allocations associated with vehicle purchases. However, due to how the previous levy documents were developed, EMS was not able to change the index used, but was able to provide additional funds if there were a significant difference in the indices. Another change incorporated during the levy period was basing inflators on June actuals, which correspond with the time period most ALS agencies use for Cost Of Living Adjustment (COLA) changes.

Key elements for the 2014-2019 inflators include:

- Use CPI-W (wages) rather than CPI-U for categories primarily covering salary expenses;
- Use vehicle PPI as recommended by King County Auditor's Office;
- Based on recommendation of auditors, King County economist or finance staff, or other appropriate group, EMS can consider adding or adjusting inflators during the 2014-2019 levy;
- Continue using a compound inflator for yearly increases to ALS allocation;
- While maintaining the KC EMS Fund BLS amount at similar level to 2008-2013 levy, change yearly increases from CPI-U to CPI-W + 1%;
- Change yearly increases in Regional Services from CPI-U + 1% to CPI-W + 1%;
- Continue to set lifetime budgets for Strategic Initiatives based on inflating project budgets by CPI+1%; once set, only adjust if changes are significant enough to affect ability to complete project. Change from CPI-U + 1% to CPI-W + 1%; and
- The 1% added to CPI for labor related expenses allows for non-COLA amounts such as step increases, changes in personnel for ALS and also includes benefits and expense increases for other programs.

Program Area	Inflators
Advanced Life Support	Compound inflator including CPI-W for labor related expenses, CPI-U for other general expenses, Pharmaceutical and Transportation PPIs, and weighted average of agencies for benefits
Basic Life Support	CPI-W + 1%
Regional Services	CPI-W + 1%
Strategic Initiatives	CPI-W + 1%

A table listing inflators by allocations and sources is included in Appendix F: Planned Inflationary Information on page 84.

## **Recommendation 5:** Continue audits to assess effectiveness of the EMS system.

*Time audits strategically rather than annually.*

The King County Auditor's Office conducts an annual audit of EMS. Each audit has resulted in positive findings along with recommendations to enhance EMS fund management and implement system efficiencies. In addition, the audits provided the region with an outside assessment of the management of the levy finances and continued a focus toward transparency and accountability of EMS finances.

The Finance Subcommittee supported consistent assessments of the EMS system and recommended that the King County Auditor continue both financial and programmatic EMS audits. The positive findings, coupled with input from the King County Auditor's Office, resulted in the subcommittee recommending that the audits be strategically placed in the levy and not occur yearly. Currently, audits are programmed for year two (2015) and year four (2017). Year 2 can provide a review of the first year of the levy and implementation of 2014-2019 Strategic Plan; Year 4 can provide review and recommendations that could be implemented mid-levy and also be used to inform the planning process for a levy potentially beginning in 2020. The timing and amount dedicated to each audit could be changed to meet evolving needs.

## **Recommendation 6:** Do not pursue ALS transport fees as a way to fund services.

*Considering alternative funding options is important. Enacting ALS transport fees could impact decisions to call for EMS services, and challenge voter support. The imposition of ALS transport fees could be considered in the future, but should not be part of the recommendations for the 2014-2019 levy.*

The Finance Subcommittee discussed an option of including ALS transport fees as a way to supplement funding for services. It was determined that adding these fees was not consistent with the review criteria developed by the subcommittee. Transport fees did not have broad-based support (criteria #4) and were not publicly consistent (criteria #5). Many committee members expressed concern that transport fees could result in people not calling 9-1-1 for a medical emergency. Delaying response to critical incidents – such as a heart attack or stroke – could result in significant reductions in patient outcomes including death. In addition, the EMS levy has consistently been presented as the way the residents of the region pay for ALS services. It was felt that adding transport fees would be confusing and challenge voter support.

## **Recommendation 7:** Expenditures and reserves projected at \$695 million over six-year span.

*This supports maintaining current services and meeting future demand at a level less than the cost of continuing the current financial support levels (Status Quo).*

The 2008-2013 plan was developed in 2006, a considerably different economic time from current conditions. The region has not only experienced a significant drop in assessed valuations and the amount of property taxes raised to support the EMS levy, but also all sectors and taxpayers have experienced considerable strain during the past few years. Based on these circumstances, the Finance Subcommittee agreed with the recommendations of the other

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

subcommittees that the 2014-2019 levy was not an appropriate time for expansion. Rather, it is time to closely review the priorities of the services being provided.

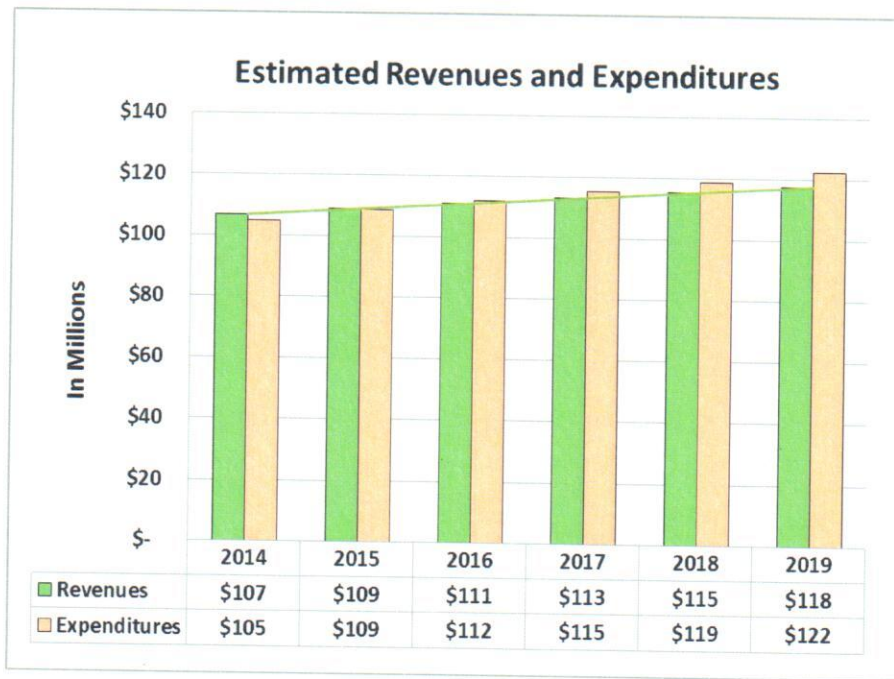
Key programs from the 2008-2013 levy, particularly those related to funding existing ALS and BLS services and maintaining key Regional Services, were preserved. Some programs were discontinued. Any additions were scrutinized.

**The resulting plan is less than if the current plan were continued with inflation into the future (status quo).**

This resulted in a financial plan with minimal increases. Total expenditure and reserves for 2014 are projected at only \$60,000 more than 2013. This is an increase of .05%. Overall, the increase in projected expenditures and reserves from the 2008-2013 levy to the 2014-2019 levy is projected to be approximately \$60 million, a 9% increase or an average increase of 1.6% per year. This is significantly less than inflation.

King County has a goal of containing increases to CPI + population growth. A projected increase of CPI + population growth at 1% would result in an average increase over the six year period of approximately 3.5%. The proposed plan represents an average increase per year of less than 3%, which is less than the King County goal.

The following chart compares estimated revenues and expenditures for the 2014-2019 levy. Since revenues increase at a lower rate than expenditures (even with expenditures held to increases less than CPI + new population), typically more revenues are collected in the early years of the levy to cover expenditures at the end of the levy. Due to the "buy-down" from the 2008-2013 levy, this trend is minimized in the 2014-2019 levy. Revenues are projected at \$2 million more than expenses in 2014; expenditures are \$5 million more than revenues in 2019.



## **Recommendation 8:** Maximize savings from the existing levy period to reduce levy rate for 2014-2019 levy.

*Reduce levy rate using saving as feasible (millage reduction).*

Regional EMS leadership quickly recognized that economic changes occurring during the 2008-2013 levy period would not permit a 30 cent levy to support continued operations of the system. They led the region through an aggressive program of reducing expenditures and putting aside funds to potentially reduce the levy rate for the 2014-2019 levy. These actions included decisions to reject expansion of two 12-hour ALS units planned for King County, leverage a period of minimal inflationary pressures to reduce expenditures below planned levels, roll the disaster relief contingency back into reserves, and achieve significant savings in Regional Support Services and Strategic Initiative programs through eliminating underperforming programs. Estimated savings equals \$21 million, or 1.6 cents.



## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

### MEDIC ONE/EMS 2014-2019 FINANCIAL PLAN ASSUMPTIONS

The 2014-2019 Financial Plan, like other financial plans, is based on numerous assumptions and acknowledges that actual conditions may differ from the original projections. The objective is to make the plan flexible enough to handle changes as they occur while remaining within expected variance. Key financial assumptions provided by the King County economist include new construction growth, assessed value, inflation and cost indices. Actuals, when presented, are through 2011; 2012 is based on 3rd quarter year-end estimate; and 2013 is based on projected budget (without double counting).

This section documents key assumptions and shows projected rates related to inflation increases and distribution of property taxes. It also details revenues, expenditures and reserves that constitute the 2014-2019 Financial Plan. Note that when numbers are rounded to millions for presentation purposes, some rounding errors will occur. Detailed numbers are shown in the Financial Plan at the end of this section.

Total expenditures for the Medic One/EMS system in King County are projected to be \$695 million over the 2014-2019 levy span. Funds are projected for the four Medic One/EMS program areas of Advanced Life Support, Basic Life Support, Regional Services and Strategic Initiatives, reserves, designations and audits. Under the current economic conditions, a levy rate of 35.1 cents per \$1,000/AV would be required to support \$695 million of expenditures. However, the region began aggressively managing and saving funds during the 2008-2013 levy period to decrease the amount needed to be raised in the next levy. Total savings from this undertaking are approximately \$21 million that will reduce the 2014-2019 levy rate by 1.6 cents/\$1,000 AV to a proposed starting rate of 33.5 cents /\$1,000 AV.

### Financial Stewardship

*Expenditures to cover programmatic needs would require a levy rate of 35.1 cents*

*However, as a result of targeted underspending and savings of funds during the 2008-2013 levy period, the required rate was reduced to **33.5 cents**.*

#### The 2014-2019 Financial Plan differs from previous levies in two key ways:

##### 1) Limited new programs and expenditures:

With previous levies, substantial increases were implemented during the first year of each new levy. **In contrast, there is reduced planned spending in the first year of the 2014-2019 levy, when adjusted for inflation.** Proposed new services and programs are minimal, and are offset by reduced expenditures. Overall proposed increases across the levy span are less than projected CPI plus new population.

##### 2) Reduced proposed revenues:

The 2014-2019 levy proposes using funds from the 2008-2013 levy to reduce the amount needed to be raised over planned expenditures. Estimated savings are \$21 million, or 1.6 cents.



## KEY ASSUMPTIONS

### Revenues

The Medic One/EMS 2014-2019 Financial Plan is built on an EMS property tax levy (based on assessed valuations, or AVs) as the primary source of funding. The revenue forecast is based on assumptions of the assessed value at the start of the levy period, assessed value growth, and new construction growth, as forecast by the King County Economist. In addition, the King County Economist recommended assuming a 99% collection rate for property taxes (1% delinquency rate). Other considerations are the division of revenues between the City of Seattle and the King County EMS fund, interest income on fund balance, and other revenues.

### Assessed Valuations:

The plan assumes that 2014 is the first year of growth in assessed valuations after four years of decreased assessed valuations beginning in 2010. Total decreased AVs from 2008 to 2013 equal \$21 billion, a decrease of over 6%. From 2009 through 2013, AV is expected to decrease by \$78 billion or 20%.

After years of decreases, the 2014-2019 Plan assumes a 3.8% increase in AV for 2014, followed by similar increases for the remainder of the levy. It also shows a decrease in 2014 new construction after a forecast increase from 2013. Total projected AV growth on existing properties averages approximately 3.9% per year. Significant increases in the new construction forecast for 2017-2019 bring the average new construction growth to 3.7% per year.

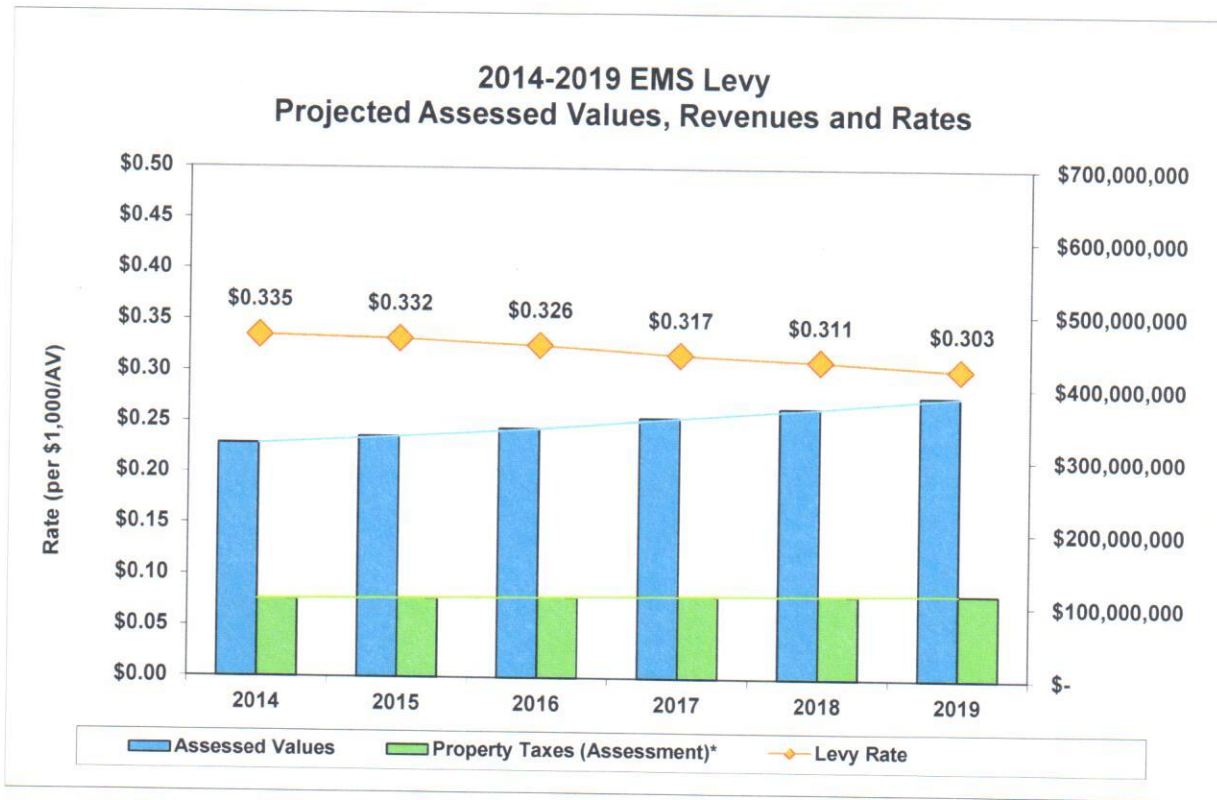
<b>Key Assumption: 2014 - 2019 Forecast</b>							
Rate of Growth	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Average Total</b>
New Construction	(2.29%)	(1.25%)	3.51%	6.61%	8.49%	6.89%	3.66%
Reevaluation Existing Properties	3.78%	3.11%	3.58%	4.48%	3.89%	4.51%	3.89%

### Assessment (Property Taxes):

Increases in assessments (property taxes) are limited to 1% plus assessments on new construction. Growth during the 2014-2019 levy period is projected to increase at a rate less than the projected Consumer Price Index (CPI). Previous levies have typically included expansions in funding and services. Reflecting lower AVs and economic conditions, the proposed 2014-2019 levy limits growth to underlying inflation and increased population growth. Additional and increased services are limited.

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

The following chart and table show the interrelationship between assessed valuations, levy assessment or property taxes, and levy rate as currently forecasted. While the growth in AV (AV growth) from 2015 to 2019 averages almost 4% per year, projected property taxes (property taxes/assessment) are projected to average less than 2% per year. This includes a 1% increase on existing properties and the addition of new construction. Based on these increases, the levy rate is projected to decline to 30 cents per \$1,000 AV by the end of the levy in 2019.



	2014	2015	2016	2017	2018	2019
Projected Assessed Value	\$320,214,062,652	\$330,181,944,732	\$341,995,027,189	\$357,326,613,542	\$371,227,884,313	\$387,978,236,511
Property Taxes (Assessment)*	\$106,198,994	\$108,394,992	\$110,320,026	\$112,303,817	\$114,366,102	\$116,488,664
Forecast Levy Rate	\$0.335	\$0.332	\$0.326	\$0.317	\$0.311	\$0.303
Growth in AV		3.11%	3.58%	4.48%	3.76%	4.65%
Growth in Assessment		2.07%	1.78%	1.80%	1.84%	1.86%

\*assuming 1% delinquency rate

Division of Revenues: Revenues associated with the City of Seattle are sent directly to the city by King County; revenues for the remainder of King County are deposited in the King County EMS Fund. With the economic downturn in 2010, the traditional 35.5% proportion to the City of Seattle increased to 36.2% and is projected to increase to 37.1% in 2013, and then gradually reduce to 36.0% by 2019.

The following table shows AV distribution trends:

<b>Division and Estimated Value of Assessments for the 2014 - 2019 Levy Period</b>				
	<b>Average % of Assessed Value</b>	<b>Estimated Tax Revenue *</b>	<b>Estimated Other Revenue *</b>	<b>Estimated Total *</b>
City of Seattle	36.42%	\$243.22		<b>\$243.22</b>
KC EMS Fund	63.58%	\$424.85	\$5.05	<b>\$429.90</b>
Total	100.00%	\$668.07	\$5.05	<b>\$673.12</b>

\* \$ in Million, total assuming 1% delinquency rate

Based on the forecast division of property taxes by the King County economist, the following tables show forecast property tax assessments for the City of Seattle and King County EMS Fund. This represents the full estimated assessment prior to under-collection (delinquency) assumptions.

<b>Forecast Property Tax Assessment 2014 - 2019 ( in millions)</b>							
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>TOTAL</b>
City of Seattle	\$39.6	\$40.2	\$40.7	\$41.2	\$41.7	\$42.4	<b>\$245.7</b>
KC EMS Funds	\$67.7	\$69.3	\$70.8	\$72.3	\$73.8	\$75.3	<b>\$429.1</b>
TOTAL	\$107.3	\$109.5	\$111.4	\$113.4	\$115.5	\$117.7	<b>\$674.8</b>
Growth in Total Levy		2.05%	1.74%	1.80%	1.85%	1.90%	

Total **does not include** 1% delinquency rate.

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

The following table shows estimated revenues based on assumed division of assessed value for both the City of Seattle and the King County EMS Fund. The amount actually expected to be collected, based on a 1% delinquency rate, is slightly less, as the following table shows.

<b>Total Forecast Property Tax Revenue 2014 - 2019 ( in millions)</b>							
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>TOTAL</b>
City of Seattle	\$39.2	\$39.8	\$ 40.3	\$40.8	\$41.3	\$41.9	<b>\$243.2</b>
KC EMS Funds	\$ 67.0	\$68.6	\$70.1	\$71.5	\$73.1	\$74.6	<b>\$424.8</b>
<b>TOTAL</b>	<b>\$106.2</b>	<b>\$108.4</b>	<b>\$110.3</b>	<b>\$112.3</b>	<b>\$114.4</b>	<b>\$116.5</b>	<b>\$668.1</b>
<i>Growth in Total Levy</i>		2.07%	1.75%	1.81%	1.87%	1.84%	

Total **includes** 1% delinquency rate.

**Other Revenues:** In addition to property taxes from the Medic One/EMS levy, the KC EMS Fund receives interest income on its fund balance, other miscellaneous King County revenues distributed proportionately to property tax funds (such as lease and timber taxes), and a small amount from reimbursement for services to outside companies and organizations.

<b>Other Revenue Assumptions</b>		
<b>MEDIC ONE/EMS 2014 - 2019 Financial Plan</b>		
<b>REVENUES</b>	<b>Estimate</b>	<b>%</b>
Charges for Services	\$1,180,140	23.3%
Interest Income	\$2,639,000	52.2%
Misc.and Other Taxes	\$911,100	18.0%
Other Finance Sources	\$324,000	6.5%
<b>TOTAL OTHER REVENUE</b>	<b>\$5,054,240</b>	<b>100.0%</b>

### **Expenditures**

Medic One/EMS revenues support Medic One/EMS operations related to direct service delivery or support programs:

- Advanced Life Support (ALS) Services
- Basic Life Support (BLS) Services
- Regional Support Programs
- Strategic Initiatives
- Community Medical Technician (CMT) services
- Audits
- Reserves

Expenditures are shown for each fund – City of Seattle and KC EMS Fund. The City of Seattle divides expenditures into two program areas: ALS and BLS. The KC EMS Fund finances four main program areas: Advanced Life Support, Basic Life Support, Regional Services and Strategic Initiatives. In addition, there is funding for Community Medical Technician Units (CMTs), audits and reserves.

All programs are increased yearly with inflators appropriate to the program. These inflators include a CPI assumption. The CPI assumptions used in this Financial Plan were provided by the King County Economist. Expenditures are inflated by the previous year's actuals (through June). This closely approximates agencies' actual costs that are primarily driven by labor costs and increases based on yearly indices for June.

<b>CPI Assumptions – CPI-W</b>							
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Forecast CPI - W	2.10%	2.38%	2.34%	2.39%	2.45%	2.49%	2.57%

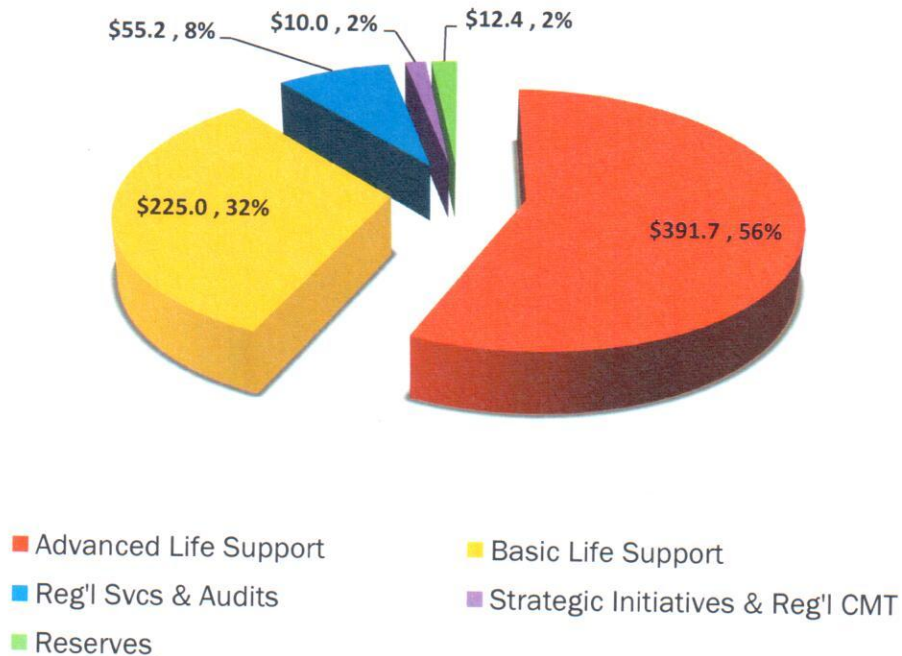
To encourage cost efficiencies and allow for variances in expenditure patterns, designated reserves (program balances) were added during the 2002-2007 levy and have remained in practice. Program balances allow agencies to save funds from one year to use for variances in expenditures in future years. This is primarily used by ALS agencies to accommodate cashflow peaks related to completing labor negotiations – both increases and instances where contracts are negotiated after they have expired and include back wages. Within Regional Services, use of designated reserves may be related to the timing of special projects (particularly projects supporting ALS or BLS agencies).

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

The following pie chart shows the distribution of funds by area. More than half of the funds are related to ALS, approximately a third to BLS, and 12 % covers all other projected expenses. The division of funds between program areas is similar to the 2008-2013 levy (not including contingencies in the 2008 levy period).

### Medic One/EMS 2014-2019 Levy

#### Proposed Distribution by Program Area (Seattle & King County EMS Fund)



The 2014 expenditure level for each program area was determined by projecting the costs of providing services. This included re-costing existing services to be more cost efficient, sunsetting some existing programs and limiting the addition of new programs and services. Expenditure levels for 2014 through 2019 are based on an increase by an appropriate inflator for the program, the timing of new services, and cash flow projections of individual Strategic Initiatives.

**EXPENDITURES BY PROGRAM AREAS**

**2014-2019 Medic One/Emergency Medical Services Levy  
EMS Program Areas**

October 2012

<b>Program Area Expenses</b>	<b>Seattle</b>	<b>King County</b>	<b>Total</b>
<b>Advanced Life Support (ALS)</b>	\$121,390,108	\$270,338,534	\$391,728,642
<b>Basic Life Support (BLS)</b>	\$121,833,460	\$103,210,353	\$225,043,813
<b>Regional Support Services &amp; Audit</b>		\$55,178,130	\$55,178,130
<b>Strategic Initiatives &amp; Regional CMT</b>		\$10,017,546	\$10,017,546
<b>Sub-Total</b>	<b>\$243,223,568</b>	<b>\$438,744,563</b>	<b>\$681,968,131</b>
<b>Reserves</b>		\$12,398,310	\$12,398,310
<b>TOTAL PROGRAMMATIC PROPOSAL</b>	<b>\$243,223,568</b>	<b>\$451,142,874</b>	<b>\$694,366,441</b>

Advanced Life Support (ALS) Services

Since the first Medic One/EMS levy in 1979, regional paramedic services have been largely supported by, and are the funding priority of, the Medic One/EMS levy. Costs have been forecast as accurately as feasible, but should the forecasts and method for inflating the allocation be insufficient, ALS remains the first priority for any available funds.

The Medic One/EMS levy supports ALS services using a standard unit cost methodology. Contracts with the major paramedic agencies from the KC EMS Fund are allocated on a per unit cost basis. The contract with Snohomish County Fire Protection District #26 for services in the Skykomish/Stevens Pass area is on a per year basis. The following charts show assumed average expenses by category for 2014.

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

The Standard Unit Allocation consists of the Operating Allocation and the Equipment Allocation.

ADVANCED LIFE SUPPORT (ALS) STANDARD UNIT COST 2014 Operating Allocation		
Category	Average Costs	%
Salaries and Benefits	\$1,702,769	83.3%
Medical Supplies and Equipment	\$45,637	2.2%
Office & Misc Costs	\$12,016	0.6%
Uniforms, Fire & Safety Supplies	\$2,918	0.1%
Dispatch	\$58,121	2.8%
Communications	\$8,824	0.4%
Fuel	\$11,969	0.6%
Vehicle Maintenance Costs	\$28,427	1.4%
Facility Costs	\$17,621	0.9%
Training Costs	\$2,038	0.1%
Indirect/Overhead Costs	\$152,781	7.5%
<b>OPERATIONAL EXPENSE GRAND TOTAL</b>	<b>\$2,043,121</b>	<b>100%</b>

The Equipment Allocation was developed by looking at the average cost of equipment purchases, the expected lifespan of the equipment, and the number needed per unit. Key changes included increasing the lifespan of medic vehicles from six years to eight years. Each medic unit is budgeted to have two vehicles – primary and back-up for when the primary is out of service, there is an overlap between shifts, and times when an extra response unit may be needed (such as snowstorms or floods). This change in the vehicle lifespans was key to reducing the equipment allocation. The 2014 Equipment Allocation is a 13% reduction (over \$12,000) from what it would cost to continue with the allocation from the 2008-2013 levy period. The region will continue to refine the lifespan for equipment during the 2014-2019 levy period. If increased lifespans are achieved, the Equipment Allocation can be reduced during the levy period.

ADVANCED LIFE SUPPORT (ALS) STANDARD UNIT COST Equipment Allocation				
Equipment	Estimated 2014 Cost	Assumed Avg Lifespan	# per unit	Total per year
Medic Vehicles	\$209,051	8.0	2.0	\$52,263
Defibrillators	\$33,961	8.8	3.3	\$12,848
Mobile Data Computers (MDCs)	\$7,313	5.0	2.7	\$ 3,900
Field Supervisor (MSO) Vehicle	\$67,581	10.0	0.3	\$2,253
Support Vehicles	\$56,318	10.0	1.0	\$5,632
Stretchers	\$16,895	7.0	2.0	\$4,827
Radios, Mobile	\$2,816	11.4	2.7	\$659
Radios, Portable	\$5,069	9.4	3.0	\$1,626
<b>EQUIPMENT EXPENSE GRAND TOTAL</b>	<b>\$399,005</b>			<b>\$84,008</b>



Expenses and balances in each agency's internal equipment funds are reported yearly to the EMS Division. The 2014-2019 levy planning process included reviewing Equipment Allocation levels. The following table shows proposed Operating and Equipment Allocation totals for 2014.

<b>2014 ALS Operating and Equipment Unit Allocations by Fund</b>			
<b>Fund</b>	<b>Operating Allocation</b>	<b>Equipment Allocation</b>	<b>TOTAL</b>
City of Seattle	\$2,522,582	\$131,642	<b>\$2,654,224</b>
KC EMS Fund	\$2,043,121	\$84,008	<b>\$2,127,129</b>

This 2014-2019 Financial Plan recommends an annual review of ALS costs to minimize cost-shifting to agencies. As has been the practice, a group that includes representatives from the different ALS agencies will meet at least annually to review costs and provide recommendations.

Using a compound inflator for ALS was developed as part of the 2008 levy planning process. The following table shows the key inflators for ALS. Other programs are generally inflated by CPI + 1%.

<b>Assumptions Used to Inflate the ALS Allocation</b>								
<b>Title</b>	<b>Calculations Basis</b>	<b>Source</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<i>Wage Inflation</i>	<i>CPI +1%</i>	<i>KC Economist</i>	3.10%	3.38%	3.34%	3.39%	3.45%	3.49%
<i>Medical benefit Inflation</i>	<i>Annual % change</i>	<i>Average of agencies</i>	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
<i>LEOFF 2</i>	<i>% of Salaries</i>	<i>State Actuary</i>	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%
<i>Seattle Metro CPI</i>	<i>Annual % change</i>	<i>KC Economist</i>	2.10%	2.38%	2.34%	2.39%	2.45%	2.49%
<i>FICA %</i>	<i>% of labor charge FICA</i>	<i>KCMI Avg 2002 - 2005</i>	96.5%	96.5%	96.5%	96.5%	96.5%	96.5%
<i>Pharmaceuticals/Medical Supplies</i>		<i>KC Economist</i>	5.45%	6.64%	7.51%	6.93%	6.61%	6.40%
<i>Vehicle Costs</i>		<i>KC Economist</i>	0.29%	1.25%	1.54%	2.71%	2.00%	2.08%

\*Previous year bureau of labor statistics numbers used to inflate budgets (2013 BLS used for 2014 budgets)

<b>Total Projected ALS Service Expenses During the 2014-2019 Levy Period</b>							
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>TOTAL</b>
<b>City of Seattle</b>	\$18,579,568	\$19,198,767	\$19,844,720	\$20,532,981	\$21,244,839	\$21,989,233	<b>\$121,390,108</b>
<b>KC EMS Fund</b>	\$40,913,876	\$42,462,326	\$44,076,832	\$45,794,986	\$47,596,387	\$49,494,128	<b>\$270,338,535</b>
<b>Combined Total</b>	<b>\$59,493,444</b>	<b>\$61,661,093</b>	<b>\$63,921,552</b>	<b>\$66,327,967</b>	<b>\$68,841,226</b>	<b>\$71,483,361</b>	<b>\$391,728,643</b>

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

### Basic Life Support (BLS) Services

The levy provides partial funding to BLS agencies to help ensure uniform and standardized patient care and enhance BLS services. Basic Life Support services are provided by 30 local fire departments and fire districts. The BLS allocation is inflated at CPI-W + 1% per year.

Total Projected BLS Service Expenses During the 2014-2019 Levy Period							
	2014	2015	2016	2017	2018	2019	TOTAL
City of Seattle	\$20,607,861	\$20,582,195	\$20,422,089	\$20,233,305	\$20,041,324	\$19,946,686	\$121,833,460
KC EMS Fund	\$15,801,074	\$16,335,150	\$16,880,744	\$17,453,001	\$18,055,130	\$18,685,254	\$103,210,353
<b>Combined Total</b>	<b>\$36,408,935</b>	<b>\$36,917,345</b>	<b>\$37,302,833</b>	<b>\$37,686,306</b>	<b>\$38,096,454</b>	<b>\$38,631,940</b>	<b>\$225,043,813</b>

### Regional Support Services

The EMS Division is responsible for conducting the regional Medic One/EMS programs and services that support critical functions that are essential to providing the highest quality out-of-hospital emergency care available. This includes uniform training of EMTs and dispatchers, regional medical control, regional data collection and analysis, quality improvement activities, and financial and administrative management (including management of ALS and BLS contracts). Regional coordination of these various activities is important in supporting a standard delivery of pre-hospital patient care, developing regional policies and practices that reflect the diversity of needs, and maintaining the balance of local area service delivery with centralized interests. Includes funds to support overall infrastructure and expenses related to managing the regional system are budgeted in Regional Services. Regional Services are inflated at CPI-W + 1% per year.

Total Projected Regional Support Services Expenses for 2014-2019 Levy Period							
	2014	2015	2016	2017	2018	2019	TOTAL
KC EMS Fund	\$8,398,551	\$8,682,422	\$8,972,414	\$9,276,579	\$9,596,621	\$9,931,543	\$54,858,130

### Strategic Initiatives

Strategic Initiatives are pilots geared to meet the success of the strategic directions. Strategic Initiatives are funded with lifetime budgets that include inflationary assumptions similar to those used by Regional Services. However, the overall lifetime budgets are not adjusted to reflect small changes in CPI. The EMS Division has the discretion to move funds between approved Strategic Initiatives to ensure the success of the projects. Increased funding for the programs or new projects are reviewed and recommended by the EMS Advisory Committee for approval by the King County Council through the normal budget process.

Total Projected Strategic Initiatives and Regional CMT Units Expenses for 2014-2019 Levy Period							
	2014	2015	2016	2017	2018	2019	TOTAL
Strategic Init	\$529,690	\$841,781	\$1,007,823	\$1,196,833	\$1,233,496	\$1,264,590	\$6,074,213
Reg'l CMT		\$363,546	\$704,299	\$679,502	\$1,104,770	\$1,091,217	\$3,943,334
<b>Total</b>	<b>\$529,690</b>	<b>\$1,205,327</b>	<b>\$1,712,122</b>	<b>\$1,876,335</b>	<b>\$2,338,266</b>	<b>\$2,355,807</b>	<b>\$10,017,547</b>

## Audits

The King County Council adopted legislation to complement and augment the oversight and accountability of the King County EMS Fund through increased financial review and audits by the King County Auditor's office for the 2008-2013 levy period. Based on the positive findings of the audits, the 2014-2019 levy includes audits covering both finances and program areas strategically through the levy period. Currently these are scheduled for 2015 (the second year of the new levy) and 2017 with the idea that the 2017 audit could also influence recommendations for the next levy.

Total Projected Annual Audit Expenses for the 2014-2019 Levy Period							
	2014	2015	2016	2017	2018	2019	TOTAL
KC EMS Fund	\$0	\$160,000	\$0	\$160,000	\$0	\$0	\$320,000

## Reserves and Designations

Reserves were added during the 2008-2013 levy planning process and refined further – based on recommendations of the King County Auditor's Office – during the levy period. During the 2014-2019 levy planning process, reserves were reviewed extensively and consolidated into four main ALS categories, a reserve for CMT, and a reserve for cash flow requirements.

Reserves fund unanticipated inflation and costs that are not included in the ALS allocation. Designations include funding set aside by ALS agencies and regional support services for planned expenses in future years. The 2014-2019 Financial Plan includes reserves totaling \$12.4 million for the King County EMS Fund. Use of the funds is tightly controlled. If needed to address emerging conditions, changed economic circumstances and/or King County policies, changes to reserves can be implemented during the 2014-2019 levy period. Such changes would require review and approval by the EMS Advisory Committee and the King County Council.

Reserves included in the 2014-2019 levy are shown in the following table. More information on reserves is available in Appendix E: Planned Reserves on page 83.

Total Reserves Budget for the 2014-2019 Levy Period						
	2014	2015	2016	2017	2018	2019
ALS Capacity Reserve	\$1,067,700	\$1,067,700	\$1,067,700	\$1,067,700	\$1,985,700	\$3,358,700
ALS Equipment Reserve	\$488,900	\$488,900	\$488,900	\$488,900	\$488,900	\$488,900
ALS Operational Reserve	\$981,900	\$981,900	\$981,900	\$981,900	\$981,900	\$981,900
ALS Risk Abatement Reserve	\$1,510,000	\$1,510,000	\$1,510,000	\$1,510,000	\$1,510,000	\$1,510,000
CMT Unit Reserve			\$388,424	\$739,897	\$1,519,484	\$1,519,484
Cash Flow Reserve	\$4,051,338	\$4,149,104	\$4,250,815	\$4,352,114	\$4,451,498	\$4,539,327
<b>COMBINED TOTAL</b>	<b>\$8,099,838</b>	<b>\$8,197,604</b>	<b>\$8,687,739</b>	<b>\$9,140,511</b>	<b>\$10,937,482</b>	<b>\$12,398,311</b>

Note: Reserves roll over year-to-year; total budget dedicated to reserves is \$12 million

## Medic One/EMS 2014-2019 EMS FINANCIAL PLAN - cont.

Designations: To encourage cost efficiencies and allow for variances in expenditure patterns, program balances were added during the 2002-2007 levy to allow agencies to save funds from one year to use for variances in expenditures in future years. King County Medic One, the south King County ALS service provided directly by King County, has internal designations related to its equipment replacement fund. Since designations represent funds previously appropriated, they are generally managed by the EMS Division within appropriation levels adopted by the King County Council.

The following chart shows planned expenditures for the 2014-2019 levy period.

Total Projected Expenditures for 2014 - 2019 Levy							
	2014	2015	2016	2017	2018	2019	TOTAL
City of Seattle	\$39.2	\$39.8	\$40.3	\$40.8	\$41.3	\$41.9	\$243.2
KC EMS Fund	\$65.6	\$68.8	\$71.6	\$74.6	\$77.6	\$80.5	\$438.7
<b>COMBINED TOTAL</b>	<b>\$104.8</b>	<b>\$108.6</b>	<b>\$111.9</b>	<b>\$115.3</b>	<b>\$118.9</b>	<b>\$122.4</b>	<b>\$682.0</b>

Medic One/EMS Program Areas							
Projected Expenses and Reserves							
Fund	Advance Life Support	Basic Life Support	Regional Services & Audit	Strategic Initiatives & CMT Units	SubTotal Expenses	Reserves	Total
City of Seattle	\$121.4	\$121.8			\$243.2		\$243.2
KC EMS Fund	\$270.3	\$103.2	\$55.2	\$10.0	\$438.7	\$12.4	\$451.1
<b>Combined Total</b>	<b>\$391.7</b>	<b>\$225.0</b>	<b>\$55.2</b>	<b>\$10.0</b>	<b>\$682.0</b>	<b>\$12.4</b>	<b>\$694.4</b>

# 2014-2019 Financial Plan

(10/2012)

Revised Strategic Plan financial plan, dated April 2013  
**EMERGENCY MEDICAL SERVICES LEVY OVERVIEW - 65% CI Programmatic (with Buy-Down)**

This April 2013 revised financial plan is not consistent with the October 2012 tables elsewhere in the Strategic Plan



King County

Countywide Assessed Value\*\*\*

Levy Rate (cents per \$1,000 valuation)

\$324,803,175,035	\$340,210,411,137	\$351,384,756,374	\$362,586,731,933	\$377,936,087,573	\$392,704,813,741
0.33500	0.32659	0.32193	0.31766	0.31035	0.30417

	2014	2015	2016	2017	2018	2019	2014-2019 Total
<b>REVENUES</b>							
Countywide EMS Levy	\$108,809,064	\$111,110,529	\$113,121,076	\$115,179,591	\$117,293,258	\$119,448,708	\$119,448,708
Levy collection rate	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
Projected Countywide Undercollection	(\$1,111,105)	(\$1,111,105)	(\$1,131,211)	(\$1,151,796)	(\$1,172,933)	(\$1,194,487)	(\$1,194,487)
Countywide EMS Levy with Undercollection	\$107,720,973	\$109,999,424	\$111,989,865	\$114,027,795	\$116,120,326	\$118,254,221	\$118,254,221
Projected Seattle Assessed Valuation	\$122,318,653,178	\$128,601,161,687	\$132,825,117,603	\$136,920,166,407	\$142,238,740,806	\$147,336,527,437	\$147,336,527,437
Proportion to Total County Assessed Valuation	37.66%	37.80%	37.80%	37.76%	37.64%	37.52%	37.52%
Seattle EMS Levy	\$40,976,749	\$42,000,311	\$42,760,307	\$43,494,169	\$44,144,092	\$44,815,233	\$44,815,233
Seattle Levy collection rate	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
Projected Seattle Undercollection	(\$409,767)	(\$420,003)	(\$427,603)	(\$434,942)	(\$441,441)	(\$448,152)	(\$448,152)
Seattle EMS Levy with Undercollection	\$40,566,981	\$41,580,308	\$42,332,704	\$43,059,228	\$43,702,651	\$44,367,081	\$44,367,081
Projected Net County Portion EMS Levy (Less Seattle)	\$67,153,992	\$68,419,116	\$69,657,161	\$70,968,567	\$72,417,675	\$73,887,140	\$73,887,140
Projected King County Other Revenue	\$510,730	\$537,702	\$793,702	\$977,702	\$1,111,702	\$1,102,702	\$5,054,240
King County Revenue	\$67,664,722	\$68,956,818	\$70,450,863	\$71,966,269	\$73,529,377	\$74,989,842	\$74,989,842
<b>TOTAL REVENUE</b>	\$108,231,703	\$110,537,126	\$112,783,567	\$115,025,497	\$117,232,028	\$119,356,923	\$683,166,844
<b>EXPENDITURES</b>							
Advanced Life Support Services -- Seattle	(\$18,579,568)	(\$19,198,767)	(\$19,844,720)	(\$20,532,981)	(\$21,244,839)	(\$21,989,233)	(\$121,390,108)
Advanced Life Support Services -- King County	(\$40,913,876)	(\$42,482,326)	(\$44,076,832)	(\$45,794,986)	(\$47,596,387)	(\$49,494,128)	(\$270,338,535)
<b>Total Advanced Life Support Services</b>	(\$59,493,444)	(\$61,681,093)	(\$63,921,552)	(\$66,327,967)	(\$68,841,226)	(\$71,483,361)	(\$391,728,643)
Basic Life Support Services -- Seattle	(\$20,607,861)	(\$20,582,195)	(\$20,422,089)	(\$20,233,305)	(\$20,041,324)	(\$19,946,886)	(\$121,833,460)
Basic Life Support Services -- King County	(\$15,801,074)	(\$16,335,150)	(\$16,880,744)	(\$17,453,001)	(\$18,055,130)	(\$18,685,254)	(\$103,210,353)
<b>Total Basic Life Support Services</b>	(\$36,408,935)	(\$36,917,345)	(\$37,302,833)	(\$37,686,306)	(\$38,096,454)	(\$38,633,140)	(\$225,043,813)
Regional Services****	(\$8,448,551)	(\$8,682,422)	(\$9,122,414)	(\$9,276,579)	(\$9,586,621)	(\$9,931,543)	(\$55,056,130)
Strategic Initiatives	(\$529,690)	(\$841,781)	(\$1,007,823)	(\$1,196,833)	(\$1,233,496)	(\$1,264,590)	(\$6,074,213)
Regional CMT Units		(\$363,546)	(\$704,299)	(\$679,502)	(\$1,104,770)	(\$1,091,217)	(\$3,943,334)
KC Audit (Compliance, Programmatic/Performance)		(\$160,000)		(\$160,000)			(\$320,000)
<b>TOTAL EXPENDITURES</b>	(\$104,880,920)	(\$108,626,187)	(\$112,058,921)	(\$115,327,187)	(\$118,872,567)	(\$122,402,651)	(\$682,166,133)
<b>DIFFERENCE</b>	\$3,351,083	\$1,910,939	\$724,646	(\$301,690)	(\$1,640,539)	(\$3,045,728)	\$986,711
<b>RESERVES*</b>							
KC ALS Reserves	(\$4,048,500)	(\$4,048,500)	(\$4,048,500)	(\$4,048,500)	(\$4,966,500)	(\$6,339,500)	(\$6,339,500)
KC CMT Reserves			(\$388,424)	(\$739,897)	(\$1,519,484)	(\$1,519,484)	(\$1,519,484)
KC Assessed Valuation Reserve****	(\$1,545,305)	(\$1,545,305)	(\$1,545,305)	(\$1,545,305)	(\$1,545,305)	(\$1,545,305)	(\$1,545,305)
KC Required Fund Balance/Reserves"	(\$4,051,338)	(\$4,149,104)	(\$4,250,815)	(\$4,352,114)	(\$4,451,498)	(\$4,539,327)	(\$4,539,327)
<b>TOTAL RESERVES</b>	(\$9,645,143)	(\$9,742,909)	(\$10,233,044)	(\$10,685,816)	(\$12,482,787)	(\$13,943,616)	(\$13,943,616)

\* Seattle Medic One programs are backed by the city General Fund, which provides reserve coverage.  
 \*\* Fund Balance Requirement change to reserve in new King County Financial Policies  
 \*\*\* Assessed Valuation will change prior to 2014 collection. This version reflects the March 2013 projections.  
 \*\*\*\* New studies = \$50,000 added in 2014 for new initiatives & \$150,000 is added in 2016 for optimal provider study  
 \*\*\*\*\* AV Reserve is to account for anticipated carryover of additional fund balance

## Appendix A: Planned Regional Services for 2014-2019 Levy

Regional Services planned in the 2014-2019 levy, including converted Strategic Initiatives (SI)		
Function	Group	Project Area
A. TRAINING	1. EMT Training <ul style="list-style-type: none"> <li>a. Basic Training</li> <li>b. EMS Online Continuing Education (CE) Training</li> <li>c. CBT Instructor Workshops</li> <li>d. EMT Certification Recordkeeping</li> <li>e. HIPAA for EMS Agencies</li> </ul>	<ul style="list-style-type: none"> <li>a. Entry-level training to achieve WA State certification</li> <li>b. Web-based training to maintain/learn new skills and meet state requirements (Enhancement SI converted to RS for 2014-2019 levy)</li> <li>c. Training for Senior EMT instructors</li> <li>d. Monitor and maintain EMS certification records</li> <li>e. Use of Public Health Dept's HIPAA training tool</li> </ul>
	2. EMD Training <ul style="list-style-type: none"> <li>a. Basic Training</li> <li>b. Continuing Education</li> <li>c. EMS Online Continuing Education (CE) Training - Dispatch</li> <li>d. Advanced EMS Training</li> <li>e. EMS Instructor Training</li> </ul>	<ul style="list-style-type: none"> <li>a. 40 hours entry level dispatch training</li> <li>b. Four hour in-class training to maintain skills/learn new skills</li> <li>c. Web-based training to maintain /learn new skills (Enhancement SI converted to RS for 2014-2019 levy)</li> <li>d. Advanced training to enhance key concepts (SI converted to RS for 2014-2019 levy)</li> <li>e. Instructor training for Criteria Based Dispatch</li> </ul>
	3. CPR/AED Training <ul style="list-style-type: none"> <li>a. Secondary School Students</li> </ul>	<ul style="list-style-type: none"> <li>a. Conduct CPR instructor training, purchase training supplies and equipment, train students</li> </ul>
B. GROWTH MANAGEMENT	1. Injury Prevention <ul style="list-style-type: none"> <li>a. Fall Protection for Older Adults</li> <li>b. Child Passenger Seat Safety</li> <li>c. Community Awareness Campaign</li> <li>d. Injury Prevention Small Grants for BLS Agencies</li> <li>e. Targeted Age Driving</li> </ul>	<ul style="list-style-type: none"> <li>a. Home fall hazard mitigation and patient assessment (SI converted to RS for 2014-2019 levy, and scope enhanced)</li> <li>b. Proper car seat fitting and installation for populations not served by other programs</li> <li>c. Exercise opportunities to seniors to prevent falls (SI converted to RS for 2014-2019 levy)</li> <li>d. Provide funding to agencies to develop and implement fall issues in their communities (SI converted to RS for 2014-2019 levy)</li> <li>e. Safety interventions, include preventing driving and texting</li> </ul>
	2. Criteria Based Dispatch Guidelines Revisions	Analysis to safely limit frequency that ALS is dispatched
	3. TRP/Nurseline	Divert low-acuity BLS calls to Nurseline for assistance in lieu of sending unit response

Regional Services planned in the 2014-2019 levy, including converted Strategic Initiatives (SI)		
Function	Group	Project Area
	4. BLS Efficiencies <ul style="list-style-type: none"> <li>a. Enhanced Rapid Dispatch</li> <li>b. Community Medical Technician</li> <li>c. Taxi Transport Voucher</li> <li>d. BLS Efficiencies</li> <li>e. Communities of Care</li> </ul>	<ul style="list-style-type: none"> <li>a. Process to ensure most appropriate response is sent</li> <li>b. 1-EMT response to lower-acuity calls (Enhanced for 2014-2019 levy)</li> <li>c. Transport patients at lower costs using taxis vs ambulances (Enhanced for 2014-2019 levy)</li> <li>d. Provide alternative, cost effective responses to low-acuity calls (Enhanced for 2014-2019 levy)</li> <li>e. Educate care facilities about when appropriate to call 911 (Enhanced for 2014-2019 levy)</li> </ul>
	5. Performance Standards for Dispatch Centers	Standards to ensure more efficient dispatch services (SI converted to RS for 2014-2019 levy)
C. REGIONAL MEDICAL QUALITY IMPROVEMENT (QI)	1. Regional Medical Direction	Oversight of all medical care; approval of protocols, continued education, quality improvement projects
	2. Patient Specific Medical QI	Review medical conditions to improve patient care
	3. Cardiac Case Review	Assessment and feedback re: cardiac arrest events (Expand product developed by grant to reach all of King County for 2014-2019)
	4. Emergency Medical Dispatch QI	Evaluation and feedback re: dispatch decisions
	5. Dispatcher Assisted CPR QI	Review of the handling of cardiac arrest calls; evaluate and provide feedback
	6. Public Access Defibrillation (PAD) <ul style="list-style-type: none"> <li>a. PAD Registry</li> <li>b. Project RAMPART</li> <li>c. PAD Community Awareness</li> </ul>	<ul style="list-style-type: none"> <li>a. Maintain registry/ provide PAD location to dispatchers</li> <li>b. Funding to buy/place AEDs in public areas; provide CPR training to public sector employees</li> <li>c. Increase public placement and registration of AEDs (SI converted to RS for 2014-2019 levy)</li> </ul>
	7. ALS/BLS Patient Care Protocols	Development of EMT and Medic protocols/ standards for providing pre-hospital care
	8. BLS QI	Review BLS care/effectiveness to improve patient care
	9. Regulatory Compliance	Ensure system-wide contractual/ quality assurance compliance

## Appendix A: Planned Regional Services - cont.

Regional Services planned in the 2014-2019 levy, including converted Strategic Initiatives (SI)		
Function	Group	Project Area
D. EMS DATA MANAGEMENT	1. EMS Data Collection	Oversee collection/integration/use of EMS system data, including Medical Incident Reports
	2. EMS Data Analysis	Analyze system performance and needs
	3. Systemwide Enhanced Network Design (SEND)	Improve network of data collection throughout the region (SI converted to RS for 2014-2019 levy)
	4. ECBD/CAD Interface	Integration of software and CAD system to improve call processing/data collection (SI converted to RS for 2014-2019 levy)
E. REGIONAL LEADERSHIP AND MANAGEMENT	1. Regional Leadership, Management and Support	Provide financial and administrative leadership and support to internal and external customers; implement EMS Strategic Plans, best practices, business improvement process
	2. Manage EMS Levy Fund Finances	Oversee all financial aspects of EMS levy funding
	3. Conduct Levy Planning and Implementation	Develop EMS Strategic Plan; implement programs (SI converted to RS for 2014-2019 levy)
	4. KC Audit Reviews	Examination of EMS management practices to ensure adherence to council-adopted policies (Re-scoped for 2014-2019 levy)
	5. Manage Contracts and Procurement	Oversee contract compliance and continuity of business with EMS Stakeholders
F. OTHER	1. All-Hazards Management	Leadership and coordination in planning and preparing for emergency or disaster response to ensure sustained critical business functions (Re-scoped for 2014-2019 levy)
	2. EMS Agency Support & Small Grants	Funding for agencies to offset costs for participating in EMS Division projects
G. INDIRECT & INFRASTRUCTURE	1. Infrastructure Support	Infrastructure costs needed to support EMS Division including leases, vehicles, copier, etc.
	2. Indirect and Overhead	Costs associated with EMS Division including payroll, human resources, contract support, other services and overhead.



## Appendix B: Planned Efficiencies

The EMS system and its partners have long committed to minimizing new costs and looking for programmatic efficiencies. It was this focus on efficiencies and effectiveness that allowed the system to continue providing its world renowned emergency medical care while successfully adapting to the financial constraints imposed by the lingering economic downturn. These efficiencies extend through all EMS program areas, and benefit the entire regional EMS system and its users.

The following are examples of some of the strategies undertaken by the system to manage growth in EMS services, develop further system effectiveness and cost savings, and improve EMS care.

### Manage Service Growth

Managing the rate of call growth in the EMS system is a regional priority and has been an ongoing focus throughout the past three levy periods. Managed growth leads to cost savings and/or cost avoidance, reduced stress on the entire Medic One/EMS system and greater EMS system effectiveness.

<p>1. Safely limit the frequency with which ALS is dispatched by revising the Criteria Based Dispatch.</p>	<ul style="list-style-type: none"> <li>✓ The ultimate objective of these revisions is to provide the most appropriate response for the patient.</li> <li>✓ In 2010, the King County Auditor documented \$49 million worth of savings in the 10 years since the implementation of this program.</li> <li>✓ Estimated incremental savings in 2010 was around \$3 million with a cumulative total of \$74 million of estimated savings over 12 years.</li> <li>✓ EMS is continuing to fund this effort and work with dispatch agencies to facilitate improved dispatching, including providing enhanced training opportunities. New guidelines will be implemented for 2013.</li> </ul>
<p>2. Provide less acute 9-1-1 callers with alternative, cost-effective options that offer appropriate, high quality care.</p>	<ul style="list-style-type: none"> <li>✓ The EMS Telephone Referral Program (Nurseline) allows 9-1-1 call receivers to transfer certain low-acuity, non-emergent patients to a nurse line for consultation, advice, and referral to appropriate medical care. EMS estimates avoided and reduced costs associated with this program</li> <li>✓ Use of taxi vouchers saves patient co-pays for ambulances, reduces the use of high-cost ambulances for unnecessary transports, reduces transports by BLS units, saves money for insurers, and allows BLS units to return to service more quickly. Estimated cost avoidance to healthcare system is \$1.5 million.</li> <li>✓ The Community Medical Technician is sent on lower acuity calls in non-transport capable units. It provides basic patient evaluation, assistance, specific BLS treatment on scene, and arranges for transport if medically necessary. This helps reserve other BLS transport-capable vehicles for more serious medical and fire emergencies.</li> </ul>
<p>3. Identify and target specific users of the EMS system to reduce "repeat" callers or the inappropriate calling for 9-1-1 services.</p>	<ul style="list-style-type: none"> <li>✓ Supporting Public Health with Emergency Responders (SPHERE) has EMS agencies identify patients with specific medical conditions and connect them to appropriate resources.</li> <li>✓ The Communities of Care Program educates staff of nursing homes and adult family homes about when to call 9-1-1 for an emergency to reduce unnecessary EMS responses.</li> <li>✓ Injury Prevention Programs address specific high-risk populations to help reduce injuries and prevent future calls to 9-1-1 for service.</li> </ul>

## Appendix B: Planned Efficiencies - cont.

### Process Improvements

Developing process improvements lead to accomplishing more with existing resources, thereby increasing effectiveness

1. Medic Unit relocation	<ul style="list-style-type: none"> <li>✓ Annually review unit workload, response time and exposure to critical skills to confirm medic units are in the most appropriate locations.</li> <li>✓ Ensure the most effective use of medic units and maximize response times.</li> </ul>
2. Rightsizing budgets	<ul style="list-style-type: none"> <li>✓ Scouring budgets for efficiencies and reprogramming funds into higher priority regional projects reduced planned expenditures for 2014-2019, allowing additional services to be provided without substantially increasing the budget.</li> </ul>
3. Share resources	<ul style="list-style-type: none"> <li>✓ Share resources between KCM1 and Sheriff's Department (co-located &amp; share admin)- resolved the need for a new KCM1 facility, promotes efficiencies.</li> <li>✓ Take opportunity of shared goals between two major grants to realign job duties across the studies utilizing current staff resources.</li> <li>✓ Partner with University of Washington to design test approaches to improving emergency communication for the care of cardiac arrest involving Limited English Proficiency callers. In addition, we are collaborating with the UW Department of Bioengineering to advance strategies to achieve early and effective defibrillation.</li> </ul>
4. Collaborate with local union	<ul style="list-style-type: none"> <li>✓ Collaborate with local union to reposition medic unit which allows for adequate coverage during paramedic training exercise (avoids overtime expenses).</li> <li>✓ Work with local union to reduce 3<sup>rd</sup> person shift on ALS response.</li> </ul>
5. Implement work process changes	<ul style="list-style-type: none"> <li>✓ Merge sections within the Division-Planning &amp; Evaluation with Medical QI and expand Cardiac Case Review project.</li> <li>✓ Re-align staff in Professional Standards Section to promote efficiencies and increase services with a focus on providing improved value to EMS partners.</li> <li>✓ Maximize clerical support to other sections within the Division.</li> <li>✓ Programs transitioned to local agencies. KC EMS began infrastructure and service many years ago; now fire agencies have incorporated this into their systems (put ourselves out of "business").</li> <li>✓ Regional purchasing program (leveraging volume purchases).</li> <li>✓ Use courier service to pick up and deliver post cardiac arrest data from outlying areas of King County rather than sending staff (time savings to be re-invested).</li> <li>✓ Incorporate grant developed on-line quality improvement program into levy funded operations within existing Regional Services allocation.</li> </ul>

**Technology**

Infrastructure technologies can be extended to improve patient care, be more cost efficient, and deliver greater effectiveness all around.

1. Improve the quality, accuracy and timeliness of EMS data.	<ul style="list-style-type: none"> <li>✓ Improve efficiencies by processing more re-certifications for all EMTs and paramedics in the county with same staffing; increase certifications by 20% over 2011 and reduce staff cost per certification from \$42.94 per certification (based on 2265 certifications completed in 2011) to \$35.64 per certification (based on 2729 certifications for 2013) through RETRO.</li> <li>✓ Enhance data collection and management for quality improvement activities through SEND.</li> <li>✓ Provide greater speed and efficiency in dispatch call processing with CBD Software development and CAD Integration projects.</li> <li>✓ Reduce travel time due to integration of electronic medical records with two hospitals.</li> <li>✓ Data validity checks to catch errors in real time (CASS project). This creates an ability to use professional staff for other tasks.</li> </ul>
2. Offer cost-efficient quality assurance strategies via web-based training techniques and tools (EMS Online and Cardiac Case Review).	<ul style="list-style-type: none"> <li>✓ Reduce cost per EMT student by moving didactic portion of training to the current online platform.</li> <li>✓ Reduce paramedic overtime by offering paramedic online training .</li> </ul>

**Financial measures**

	<ul style="list-style-type: none"> <li>✓ Reduce cost per EMT student by a variety of measures (reduce costs of producing classes; increase number of students to reduce cost per student and train more EMTs; use technology for a portion of class; alternative storage of supplies to reduce rental fees.</li> <li>✓ Ability to cover one time facility move by savings related to extending life span of vehicles at KCM1.</li> <li>✓ Ability to redirect resources due to low vehicle maintenance costs after acquiring new vehicles.</li> <li>✓ Ability to redirect resources due to using discount code for purchasing office supplies</li> <li>✓ Incorporate timeline of certain regional support services and strategic initiatives projects into the next levy period</li> <li>✓ Streamline procurement procedures at KCM1 (Warehouse distribution function. Initial implementation of new system resulted in increased workload (and overtime) in 2012. Working with procurement to streamline processing and procure to pay process related to distribution functions. Reducing overtime by 320 hours a year.</li> </ul>
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## Appendix B: Planned Efficiencies - cont.

Such efficiency and effectiveness activities will continue over the 2014-2019 levy period, along with the following new efficiencies:

<p><b>Manage Service Growth:</b></p> <p><b>Financial measures:</b></p> <p><b>Process Improvements:</b></p>	<ul style="list-style-type: none"> <li>✓ <u>Adding no ALS new units</u> over the span of the next levy (\$2 million per medic unit).</li> <li>✓ <u>Improving EMS Response to Vulnerable Populations (SI)</u> to target repeat callers and reduce inappropriate use of EMS services.</li> <li>✓ Extending <u>equipment life span</u> (significant savings to the unit allocation).</li> <li>✓ Implementing the <u>Regional Records Management System</u> and <u>BLS Lead Agency</u> to better support and engage BLS agencies concerning economic and quality improvement opportunities on a local level.</li> <li>✓ <u>Expanding Efficiency and Effectiveness Studies (SI)</u> to greater focus on performance and cost savings measurements/outcomes/metrics related to efficiencies. Includes grants to EMS agencies to develop and implement activities related to improving operational efficiencies and effectiveness.</li> <li>✓ Review overall operational efficiencies and patient outcomes.</li> </ul>
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# Appendix C: Advanced Life Support (ALS) Units

This table reflects medic unit additions over the past two decades. Highlights indicate where service has increased. Of note is the broad distribution of additions across ALS agencies and over time.

Advanced Life Support (ALS) Units\*

First Year	Location	previous	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Seattle</b>																								
	Seattle M1 & M10	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Seattle M14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Seattle M17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Seattle M32	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Seattle M28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Seattle M16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Seattle M31	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Seattle M18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	<b>Total</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>
<b>Bellevue Medic</b>																								
	Bellevue Medic 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Bellevue Medic 2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Bellevue Medic 3 (EMT/P)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Bellevue Medic 14	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	<b>Total</b>	<b>2</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3.5</b>	<b>3.5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Evergreen (thru 2003) / Redmond (2003 thru present)</b>																								
	Evergreen Medic 19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Evergreen Medic 23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Evergreen Medic 35 (EMT/P)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Evergreen Medic 47	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	<b>Total</b>	<b>2</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3.5</b>	<b>3.5</b>	<b>2.5</b>	<b>2.5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>King County</b>																								
	KC Medic 4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	KC Medic 5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	KC Medic 6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	KC Medic 8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	KC Medic 11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	KC Medic 7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	KC Medic 12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	KC Medic 13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	<b>Total</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>7</b>	<b>7.5</b>	<b>7.5</b>	<b>7.5</b>	<b>7.5</b>	<b>7.5</b>	<b>7.5</b>	<b>8</b>	<b>8</b>	<b>8</b>
<b>Shoreline</b>																								
	Shoreline Medic 63	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Shoreline Medic 65	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Shoreline Medic 47	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	<b>Total</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>Vashon-Maury ALS</b>																								
	Vashon Medic 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>City of Seattle</b>																								
	Remainder King County	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7
	<b>Total</b>	<b>15</b>	<b>16.5</b>	<b>17</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>19.5</b>	<b>20.5</b>	<b>20.5</b>	<b>21.5</b>	<b>22.5</b>	<b>23</b>	<b>23.5</b>	<b>23.5</b>	<b>25</b>	<b>25</b>	<b>25.5</b>	<b>25.5</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>
<b>Increase</b>																								
			1.5	0.5	0	0	1	1	0.5	1	0	1	1	0.5	0.5	0	1.5	0	0.5	0	0.5	0	0.5	0

## Appendix D: Planned Strategic Initiative Funding

### SUMMARY OF PLANNED NEW AND RETOOLED STRATEGIC INITIATIVES

4/15/2013

With Inflation (Lifetime Budgets)

	2014	2015	2016	2017	2018	2019	Total
<b>New Strategic Initiatives:</b>							
Reg'l Records Management System (RMS)	\$126,443	\$132,210	\$138,771	\$145,000	\$152,299	\$159,989	\$854,712
BLS Lead Agency		\$170,833	\$176,539	\$365,046	\$377,640	\$390,820	\$1,480,878
Vulnerable Populations Program	\$179,062	\$219,281	\$291,182	\$271,850	\$281,229	\$291,044	\$1,533,648
<b>SubTotal New Strategic Initiatives</b>	<b>\$305,505</b>	<b>\$522,324</b>	<b>\$606,492</b>	<b>\$781,896</b>	<b>\$811,168</b>	<b>\$841,853</b>	<b>\$3,869,238</b>
<b>Retooled Strategic Initiatives:</b>							
BLS Efficiencies	\$54,532	\$68,902	\$77,677	\$80,311	\$76,157	\$64,485	\$422,064
EMS Efficiency & Effectiveness Studies	\$169,653	\$250,555	\$323,654	\$334,626	\$346,171	\$358,252	\$1,782,911
<b>SubTotal Retooled Strategic Initiatives</b>	<b>\$224,185</b>	<b>\$319,457</b>	<b>\$401,331</b>	<b>\$414,937</b>	<b>\$422,328</b>	<b>\$422,737</b>	<b>\$2,204,975</b>
<b>Total New &amp; Retooled Strategic Initiatives</b>	<b>\$529,690</b>	<b>\$841,781</b>	<b>\$1,007,823</b>	<b>\$1,196,833</b>	<b>\$1,233,496</b>	<b>\$1,264,590</b>	<b>\$6,074,213</b>
Community Medical Technician Units		\$363,546	\$704,299	\$679,502	\$1,104,770	\$1,091,217	\$3,943,334
<b>TOTAL Strategic Initiatives + CMT Units</b>	<b>\$529,690</b>	<b>\$1,205,327</b>	<b>\$1,712,122</b>	<b>\$1,876,335</b>	<b>\$2,338,266</b>	<b>\$2,355,807</b>	<b>\$10,017,547</b>

## Appendix E: Planned Reserves

### RESERVES for 2014-2019 Levy

November 2012

#### ALS Capacity Reserve

Placeholder for Additional Capacity <sup>1</sup>	\$ 2,291,000	
Facility Renovations	\$ 400,000	
Call Volume & Utilization/Disaster	\$ 667,700	
Subtotal		\$ 3,358,700

#### ALS Equipment Reserve

Average lifespan 1 year shorter than planned	\$ 202,800	
Costs 3% higher than planned	\$ 286,100	
Subtotal		\$ 488,900

#### ALS Operational Reserve<sup>2</sup>

1% in Operating allocation for 19 units	\$ 394,700	
Excess PTO (2 FTEs)	\$ 243,200	
Extra Paramedic Students	\$ 244,000	
Outstanding Retirement Liability	\$ 100,000	
Subtotal		\$ 981,900

#### ALS Risk Abatement Reserve

Amount over risk pool <sup>3</sup>	\$ 124,400	
Costs not covered by risk pools	\$ 1,200,000	
Cost of replacement vehicle	\$ 185,600	
Subtotal		\$ 1,510,000

Total ALS Reserves		<b>\$ 6,339,500</b>
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Reserves for adding Reg'l CMT Units <sup>4</sup>	\$ 1,519,484
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KC Required Fund Balance/Cash Flow Reserves <sup>5</sup>	\$ 4,539,327
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Total Reserves	<b>\$ 12,398,311</b>
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#### Changes since March, 2012

<sup>1</sup> Added both years of potential cost of ALS placeholder unit (added \$918k)

<sup>2</sup> Reserve available for Regional Services indirect/infrastructure & benefit expenses if costs exceed 10% of plan and program balances are not available to cover expense.

<sup>3</sup> Assumes event \$1.3 million over amount covered by risk pool covered by 10 year amortization

<sup>4</sup> Regional Services Subcommittee recommended placing funding for slow implementation of 3 units in expenses and having reserves available for implementing additional 2 units near end of levy.

<sup>5</sup> Required Fund Balance from 2008 -2013 levy span changed to Cash Flow Reserve to be consistent with new King County Reserve Policies.

## Appendix F: Planned Inflationary Information

5/7/2012

### EMS LEVY - INFLATOR DESCRIPTION AND USAGE 2008-2013 LEVY AND PRELIMINARY PLAN FOR 2014-2019 LEVY PERIOD

Cost Categories	2008-2013 Levy Period	2014-2019 Levy Period
ALS Category:	Inflatiors	Inflatiors
Salary/Wages	CPI-U +1%	CPI-W + 1%
Overtime	CPI-U +1%	CPI-W + 1%
Benefits	Weighted Average	Weighted Average
Medical Supplies and Equipment	Pharmacies & Drug Stores (PPI)	Pharmacies & Drug Stores (PPI)
Office Supplies and Equipment	CPI-U	CPI-U
Uniforms, Fire & Safety Supplies	CPI-U	CPI-U
Dispatch	CPI-U	CPI-W + 1%
Communication Costs	CPI-U	CPI-U
Vehicle Maintenance Costs	CPI-Vehicle Cost	CPI-W + 1%
Facility Costs	CPI-U	CPI-U
Training Costs	CPI-U	CPI-U
Misc. Costs	CPI-U	CPI-U
Equipment	CPI-Vehicle Cost	CPI-U
Overhead	CPI-U +1%	PPI - Transportation Equipment (EMS)
Diesel Fuel Price Reserve	Annual change in average national diesel fuel price per gallon, adjusted for fuel taxes	CPI-W + 1%
BLS	CPI-U	Annual change in average national diesel fuel price per gallon, adjusted for fuel taxes
Regional Services	CPI-U + 1%	CPI-W + 1%
Strategic Initiatives	CPI-U + 1% (then converted to lifetime budget)	CPI-W + 1%
Reserves		
Diesel Fuel Price Reserve	Annual change in average national diesel fuel price per gallon, adjusted for fuel taxes	Annual change in average national diesel fuel price per gallon, adjusted for fuel taxes
Medic Units/Equipment (auditor)	PPI-Commodities (Ambulances)	PPI-Commodities (Ambulances)

Note: the 1% add for labor intensive items is to account for the non-COLA amounts that employees receive such as step increases



<b>2008-2013 Adopted Inflators</b>		<b>Description of Use</b>	<b>Sources/Series</b>
CPI - U	Preceding annual change in CPI-U for Seattle-Tacoma-Everett.	BLS ID: CUURA423SAO	
Inflator for Employee Benefit Costs	Average increase in employee benefit costs for ALS agencies	Adopted budgets for ALS jurisdictions (King County, Bellevue, Redmond, Shoreline, Vashon)	
PERS2	Blended Calendar Year Employer Contribution Rate	Washington State Actuary	
Inflator for LEOFF2	Blended Calendar Year Employer Contribution Rate	Washington State Actuary	
FICA Base	Proportion of salaries subject to FICA	Historical average and tax law changes	
Pharmacy/Drug Prices (PPI)	Preceding annual change in Producer Price Index for Pharmacy/Drug Prices	BLS ID: PCU446110446110	
CPI - Vehicle Costs	Preceding annual change in overall transportation costs adjusted by average fuel cost	BLS ID: CUUR0000SAT	
Diesel Fuel Price Reserve	Annual change in average national diesel fuel price per gallon, adjusted for fuel taxes	U.S. Dept of Energy: On-Highway Diesel Fuel Price Series	
PPI-Commodities -- Transportaton equipment on purchased chassis including ambulances	Recommended by KCCAO for equipment inflation; Use difference in annual change between this indice and CPI-Vehicle Costs to access Vehicle Reserves	BLS ID: WPU1413029	

<b>2014-2019 Recommended Inflators</b>		<b>Description of Use</b>	<b>Sources/Series</b>
CPI - W	Annual change in CPI-W for Seattle-Tacoma-Everett-Bremerton	BLS ID: CWURA423SAO	
PPI-Commodities -- Transportaton equipment on purchased chassis including ambulances	Preceding annual change in overall index for transportation equipment on purchased chassis including ambulances	BLS ID: WPU1413029	

## Appendix G: Comparisons Between Levies

PROGRAMMATIC COMPARISONS BETWEEN LEVIES		
Program Area	2009-2013 Levy	2014-2018 Levy
<b>Advanced Life Support (ALS)</b>	Started levy span with 25 medic units:  18 medic units - King County 7 medic units - Seattle	Starting levy span with 26 medic units:  19 medic units - King County 7 medic units - Seattle
	3 planned additional units:  2 KC (only 1 unit added) 1 Seattle (not added)	0 planned additional units  *\$2,291,000 placeholder/ reserve to fund a 12 hour medic unit during last two years of the levy span, if needed.
	Determine costs using the unit allocation methodology	Determine costs using the unit allocation methodology
	Starting Unit Allocation (KC): \$1,783,685  Average Unit Allocation over span of levy (KC): \$1,897,030	Starting Unit Allocation (KC): \$2,126,816  Average Unit Allocation over span of levy (KC): \$2,344,244
	12 Reserves to cover unanticipated/one-time expenses <ul style="list-style-type: none"> <li>- Disaster Response</li> <li>- Facilities</li> <li>- Call Volume Utilization</li> <li>- Pharmaceuticals/Medical Equipment</li> <li>- Chassis Obsolescence</li> <li>- Dispatch/Communications</li> <li>- ALS Salary and Wage</li> <li>- Risk Abatement</li> <li>- Diesel Cost</li> <li>- Paramedic Student Training</li> <li>- Excess Backfill for PTO</li> <li>- Outstanding ALS Retirement</li> </ul>	4 Reserve categories to cover unanticipated/one-time expenses <ul style="list-style-type: none"> <li>- Capacity</li> <li>- Operations</li> <li>- Equipment</li> <li>- Risk</li> </ul>
	Compound inflator (using CPI-U) to inflate annual costs	Compound inflator (using CPI-W) to inflate annual costs
	Equipment allocation: 6-year medic unit life cycle (3 years primary, 3 years back-up)	Equipment allocation: 8-year medic unit life cycle (4 years primary, 4 years back-up)

PROGRAMMATIC COMPARISONS BETWEEN LEVIES		
Program Area	2018-2021 Levy	2021-2025 Levy
<b>Basic Life Support (BLS)</b>	<p>Allocates funds to BLS agencies based on funding formula based 50/50 on Assessed Value and Call Volumes.</p> <p>BLS allocation amount for KC EMS Fund equal to 22.8 % of levy (over entire span).</p> <p>Costs inflated at CPI-U</p>	<p>Allocates funds to BLS agencies based on funding formula based 50/50 on Assessed Value and Call Volumes.</p> <p>BLS allocation amount for the KC EMS Fund equal to 23.5% of expenditures (over entire span).</p> <p>Costs inflated at CPI-W + 1%</p>
<b>Regional Services (RS)</b>	<p>Fund regional services that focus on superior medical training, oversight and improvement; innovative programs and strategies, regional leadership, effectiveness and efficiencies.</p> <p>Costs inflated at CPI-U + 1%</p>	<p>Fund regional services that focus on superior medical training, oversight and improvement; innovative programs and strategies, regional leadership, effectiveness and efficiencies.</p> <p>Programs enhanced/rescoped to meet emergent needs.</p> <p>Costs inflated at CPI-W + 1%</p>
<b>Strategic Initiatives (SI)</b>	<p>Total of 14 Strategic Initiatives</p> <ol style="list-style-type: none"> <li>1. eCBD/CAD Integration (Emergency Medical Dispatch)</li> <li>2. Dispatch Center Performance Standards (Emergency Medical Dispatch)</li> <li>3. Advanced Emergency Medical Dispatch Training (Emergency Medical Dispatch)</li> <li>4. Better Management of Non-Emergency Calls to 9-1-1 (Emergency Medical Dispatch)</li> <li>5. Community Awareness Campaign (Injury Prevention)</li> <li>6. Small Grants Program for BLS Agencies (Injury Prevention)</li> </ol>	<p>10 proven Strategic Initiatives converted into Regional Services; 2 eliminated; 2 revamped; 3 NEW Strategic Initiatives</p> <p>Converted into RS</p> <p>Converted into RS</p> <p>Converted into RS</p> <p>Revamped to further develop strategies to manage current demand and expected future growth in requests for BLS assistance</p> <p>Converted into RS</p> <p>Converted into RS</p>

## Appendix G: Comparisons Between Levies - cont.

PROGRAMMATIC COMPARISONS BETWEEN LEVIES		
Program Area	2008-2013 Levy	2014-2020 Levy
<b>Strategic Initiatives (SI)</b>	7. Countywide Falls Program (Injury Prevention)	Converted into RS
	8. Public Access Defibrillation Awareness Campaign	Converted into RS
	9. Interactive Enhancements to EMS Online	Converted into RS
	10. System wide Enhanced Network Design (SEND)	Converted into RS
	11. Grant writing/other funding Opportunities (Injury Prevention)	Eliminated
	12. All Hazards Management Preparation	Eliminated
	13. EMS Efficiencies & Evaluation Studies	Revamped to provide additional focus on performance measures, outcomes, metrics, and looking at continuous improvement projects outside of what is currently being done
14. Strategic Planning for Next EMS levy period	Converted into RS	
		3 NEW Strategic Initiatives - Vulnerable Populations - Regional Record Management System - BLS Lead Agency Proposal
<b>Other</b>	Community Medical Technician - 2 pilots as part of EMS Efficiencies/Evaluation Study	Community Medical Technician - Funding for 3 units, plus reserve for additional units if project is successful.
	Audit - Annual audit by King County Auditor's Office	Audit - Two audits over span of six years by King County Auditor's Office
	Costs inflated at CPI-U + 1%	Costs inflated at CPI-W + 1%

## Appendix H: EMS Citations

Citation	Chapters
<b><u>Chapter 18.71 RCW</u></b>	<b>Defining EMS personnel requirements: Physicians</b>
18.71.021	License required.
18.71.030	Exemptions.
18.71.200	Emergency medical service personnel – Definitions.
18.71.205	Emergency medical service personnel – Certification.
18.71.210	Emergency medical service personnel – Liability.
18.71.212	Medical program directors – Certification.
18.71.213	Medical program directors – Termination – Temporary delegation of authority.
18.71.215	Medical program directors – Liability for acts or omissions of others.
18.71.220	Rendering emergency care – Immunity of physician or hospital from civil liability.
<b><u>Chapter 18.73 RCW</u></b>	<b>Defining EMS practice: Emergency medical care and transportation services</b>
<b><u>Chapter 36.01.095 RCW</u></b>	<b>Authorizing counties to establish an EMS System: Emergency medical services – Authorized – Fees</b>
<b><u>Chapter 70.05.070 RCW</u></b>	<b>Mandating public health services</b> by requiring the local health officer to take such action as is necessary to maintain the health of the public Local health officer – powers and duties
<b><u>Chapter 70.46.085 RCW</u></b>	<b>County to bear expense of providing public health services</b>
<b><u>Chapter 70.54 RCW</u></b>	<b>Miscellaneous health and safety provisions</b>
<u>70.54.310 RCW</u>	Semiautomatic external defibrillator–duty of acquirer–immunity from civil liability
<b><u>Chapter 70.168 RCW</u></b>	<b>Revising the EMS &amp; trauma care system: Statewide trauma care system</b>
<b><u>Chapter 84.52.069 RCW</u></b>	<b>Allowing a taxing district to impose an EMS levy: Emergency medical care and service levies</b>
<b><u>Title 246-976 WAC</u></b>	<b>Establishing the trauma care system: Emergency medical services and trauma care systems</b>
	TRAINING
246-976-022	EMS training program requirements, approval, reapproval, discipline.
246-976-023	Initial EMS training course requirements and course approval.
246-976-024	EMS specialized training.
246-976-031	Senior EMS instructor (SEI) approval.
246-976-032	Senior EMS instructor (SEI) reapproval of recognition.
246-976-033	Denial, suspension, modification or revocation of SEI recognition.
246-976-041	To apply for training.

## Appendix H: EMS Citations - cont.

<b>CERTIFICATION</b>	
246-976-141	To obtain initial EMS agency certification following the successful completion of Washington state approved EMS course.
246-976-142	To obtain reciprocal (out-of-state) EMS certification, based on a current out-of-state or national EMS certification approved by the department.
246-976-143	To obtain EMS certification by challenging the educational requirements, based on possession of a current health care providers credential.
246-976-144	EMS certification.
246-976-161	General education requirements for EMS agency recertification.
246-976-162	The CME method of recertification.
246-976-163	The OTEP method of recertification.
246-976-171	Recertification, reversion, reissuance, and reinstatement of certification.
246-976-182	Authorized care – Scope of practice.
246-976-191	Disciplinary actions.
<b>LICENSURE AND VERIFICATION</b>	
246-976-260	Licenses required.
246-976-270	Denial, suspension, revocation.
246-976-290	Ground ambulance vehicle standards.
246-976-300	Ground ambulance and aid service – Equipment.
246-976-310	Ground ambulance and aid service – Communications equipment.
246-976-320	Air ambulance services.
246-976-330	Ambulance and aid services – Record requirements.
246-976-340	Ambulance and aid services – Inspections and investigations.
246-976-390	Trauma verification of pre-hospital EMS services.
246-976-395	To apply for initial verification or to change verification status as a pre-hospital EMS service.
246-976-400	Verification – Noncompliance with standards.
<b>TRAUMA REGISTRY</b>	
246-976-420	Trauma registry – Department responsibilities.
246-976-430	Trauma registry – Agency responsibilities.
<b>DESIGNATION OF TRAUMA CARE FACILITIES</b>	
246-976-580	Trauma designation process.
246-976-700	Trauma service standards.
246-976-800	Trauma rehabilitation service standards.

	<b>SYSTEM ADMINISTRATION</b>
246-976-890	Inter-hospital transfer guidelines and agreements.
246-976-910	Regional quality assurance and improvement program.
246-976-920	Medical program director.
246-976-930	General responsibilities of the department.
246-976-935	Emergency medical services and trauma care system trust account.
246-976-940	Steering committee.
246-976-960	Regional emergency medical services and trauma care councils.
246-976-970	Local emergency medical services and trauma care councils.
246-976-990	Fees and fines.
<b><u>King County Code Section 2.06.080.c</u></b>	<p>Establishing a Division of EMS within the Public Health and describes the duties of the department:</p> <p>Section 2.06.080.C</p> <p>C. To fulfill the purpose of reducing death and disability from accidents, acute illness, injuries and other medical emergencies, the duties of the emergency medical services division shall include the following:</p> <ol style="list-style-type: none"> <li>1. Track and analyze service and program needs of the emergency medical services system in the county, and plan and implement emergency medical programs, services and delivery systems based on uniform data and standard emergency medical incident reporting;</li> <li>2. Set standards for emergency medical services training and implement emergency medical service personnel training programs, including, but not limited to, public education, communication and response capabilities and transportation of the sick and injured;</li> <li>3. Coordinate all aspects of emergency medical services in the county with local, state and federal governments and other counties, municipalities and special districts for the purpose of improving the quality and quantity of emergency medical services and disaster response in King County; and</li> <li>4. Analyze and coordinate the disaster response capabilities of the department</li> </ol>
<b>PHL 9-1 (DPH DP)</b>	Emergency Medical Services (EMS) System Policy
<b>PHL 9-2 (DPH DP)</b>	Emergency Medical Services (EMS) Financial Policy
<b>Updated EMS Financial Plan</b>	Approved annually through King County budget process

## Appendix I: Meeting Schedule

### EMS Advisory Task Force Medic One/EMS Strategic Plan & Reauthorization Meeting Schedule

#### EMS Advisory Task Force:

<b>Tuesday, October 25, 2011</b>	1:00 - 3:00PM	Seattle Joint Training Facility - 9401 Myers Way South, Seattle
<b>Tuesday, January 31, 2012</b>	1:00 - 3:00PM	Bellevue City Hall - 450 110th Avenue NE, Bellevue
<b>Wednesday, May 30, 2012</b>	1:00 - 3:00PM	Community Center at Mercer View - 8236 SE 24th St, Mercer Island
<b>Thursday, July 26, 2012</b>	1:00 - 3:00PM	Tukwila Community Center - 12424 42nd Avenue South, Tukwila

#### Subcommittees:

##### Advanced Life Support (ALS)

1:00 - 3:00PM

Chief Gregory Dean, Chair

November 3, 2011 - Renton Fire Station #14  
 November 30, 2011 - Renton Fire Station #14  
 December 20, 2011 - Renton Fire Station #14  
 February 7, 2012 - Bellevue City Hall  
 March 6, 2012 - Bellevue City Hall  
 April 3, 2012 - Bellevue City Hall  
 June 5, 2012 - Bellevue City Hall

##### Basic Life Support (BLS)

1:00 - 3:00PM

Mayor Denis Law, Chair

November 17, 2011 - Renton City Hall, 7th floor  
~~December 8, 2011 - Renton Fire Station #14~~  
 January 5, 2012 - Renton City Hall, 7th floor  
 February 16, 2012 - Renton City Hall, 7th floor  
 March 15, 2012 - Renton City Hall, 7th floor  
 April 12, 2012 - Renton City Hall, 7th floor  
 June 14, 2012 - Renton City Hall, 7th floor

##### Regional Services Subcommittee

1:00 - 3:00PM

Mayor Jim Haggerton, Chair

November 10, 2011 - Tukwila City Hall  
 December 14, 2011 - Mercer Island Station 91  
 January 12, 2012 - Mercer Island Station 91  
 February 23, 2012 - Mercer Island Station 91  
 March 22, 2012 - Mercer Island Station 91  
 April 10, 2012 - Mercer Island Station 91  
 April 19, 2012 - Mercer Island Station 91  
 April 26, 2012 - Mercer Island Station 91  
 June 21, 2012 - Mercer Island Station 91

##### Finance Subcommittee

1:00 - 3:00PM

Mayor John Marchione, Chair

November 16, 2011 - Eastside Fire & Rescue  
 January 24, 2012 - Eastside Fire & Rescue  
 March 28, 2012 - Eastside Fire & Rescue  
~~May 2, 2012 - Location TBD~~  
 May 10, 2012 - Eastside Fire & Rescue  
 July 11, 2012 - Eastside Fire & Rescue

Renton Fire Station #14 - 1900 Lind Avenue SW, Renton - (425) 430-7100

Tukwila City Hall - 6200 Southcenter Blvd, Tukwila - (206) 433-1800

Mercer Island Station 91 - 3030 78th Avenue SE, Mercer Island - (206) 275-7607

Renton City Hall - 1055 South Grady Way, Renton - (206) 430-6400

Eastside Fire & Rescue HQ - 175 Newport Way NW, Issaquah - (425) 392-3433



## Appendix J: EMS Advisory Task Force Work Plan

### EMS Advisory Task Force Work Plan

Submitted to the King County Council on September 15, 2010, in accordance with SECTION 75: EMERGENCY MEDICAL SERVICES Proviso P-1 of the King County 2010 Budget Act, Ordinance 16717.

The EMS Advisory Task Force Work Plan proposed a means for managing and coordinating the Task Force to allow for the timely review of issues and options in developing recommendations for the Medic One/EMS 2014-2019 Strategic Plan.

The Work Plan created four subcommittees, representing the Advanced Life Support (ALS), Basic Life Support (BLS), Regional Services (RS) and Finance program areas, to complete the bulk of the system program and cost analysis. Recommendations regarding current and projected program needs were generated through the ALS, BLS, and RS Subcommittees and subsequently presented to the EMS Advisory Task Force. A financial plan to adequate support these needs was developed and reviewed by the Finance Subcommittee.

The Work Plan recommended that the EMS Advisory Task Force meet four times, starting in October 2011 and concluding in July 2012. This allowed adequate time for the various subcommittees and the EMS Division staff to perform necessary analyses and prepare materials for task force review and deliberation, and subsequently report their recommendations in a timely manner to the King County Council.

<b>Meeting #1: October 2011</b>	<b>Meeting #2: January 2012</b>	<b>Meeting #3: May 2012</b>	<b>Meeting #4: July 2012</b>
<b>EMS Orientation</b>	<b>Preliminary Review</b>	<b>Full Draft Review</b>	<b>Final Review</b>
<p><b>Review:</b> 1. Task Force (TF) duties and expectations; TF timeline</p> <p><b>Overview:</b> 2. EMS System Review</p> <p><b>Develop:</b> 3. Subcommittee Chairs</p>	<p><b>Overview:</b> 1. EMS Levy Review</p> <ul style="list-style-type: none"> <li>▪ Length</li> <li>▪ Rate</li> <li>▪ Ballot timing</li> </ul> <p><b>Follow Up:</b> 2. Subcommittees to report back preliminary programmatic and financial findings</p> <p><b>Other:</b> 3. Other follow up items</p>	<p><b>Follow-up:</b> 1. Subcommittees to report back full draft program and financial recommendations</p> <p>2. Discuss EMS Levy components</p> <ul style="list-style-type: none"> <li>▪ Length</li> <li>▪ Rate</li> <li>▪ Ballot timing</li> </ul> <p><b>Other:</b> 3. Other follow up items</p>	<p><b>Take Action:</b> 1. Approve programmatic recommendations and Financial Plan</p> <p>2. Finalize EMS levy components</p> <ul style="list-style-type: none"> <li>▪ Length</li> <li>▪ Rate</li> <li>▪ Ballot timing</li> </ul>

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