



**County of Contra Costa
EMERGENCY MEDICAL SERVICES
Memorandum**

DATE: March 19, 2018

TO: FINANCE COMMITTEE
Supervisor Karen Mitchoff, District IV, Chair
Supervisor John Gioia, District I, Vice Chair

FROM: Patricia Frost, Director, Emergency Medical Services

SUBJECT: Contra Costa EMS System Funding Recommendations

Information:

Referral History:

On October 5, 2017, the EMS Agency submitted a report on Community Service Area EM-1 (Measure H). The conclusions of that report demonstrated the following:

- 1. Measure H has provided a legacy of high value EMS System enhancement and has been pivotal in allowing the Contra Costa EMS System to become one of the premier EMS Systems in the state.**
- 2. Measure H funds are now fully dedicated and further investment in the EMS system is required to support continuity of operations and to create opportunities to optimize the EMS System through integration with the Countywide health care delivery system.**
- 3. The success of future EMS System service delivery models relies on investing in technology infrastructure to create data driven medical transportation solutions and safe EMS expanded scope of practice alternatives (e.g. Community paramedicine). The immediate opportunity is through bi-directional prehospital electronic health information exchange with the hospitals.**

Based on the report, Finance committee Chair, Supervisor Karen Mitchoff directed the EMS Director to return with funding recommendations.

Background:

As of the 2016 EMS System Annual Report, EMS System technology (9%) and Systems of Care program support (25%) represent 34% of the current Measure H budget. These funds have a proven track record of saving lives in day-to-day and disaster conditions, preventing and reducing citizen and EMS provider injury and improving patient care outcomes for trauma, cardiac arrest, heart attack and stroke. This 34% allocation represents \$1,629,224 dollars in Measure H tax revenue or \$1.50 per person per year.

Countywide EMS System Technology & Systems of Care Program Support		
Measure H Allocation	Dollars	Current Dollars Per Person Per Year
34%	\$1,629,224	\$1.50
Request	\$750,000	\$2.16

The request of \$750,000/year revenue would increase the County investment from \$1.50 to \$2.16 per person per year. For less than the cost of one Starbucks coffee, the Board could assure EMS System Program and Technology support for an additional three to five years.

Historically, Measure H and Emergency Ambulance Agreements have served as primary funding sources for EMS System enhancement:

1. Between 1988 through 1990, Measure H was used to procure paramedic-level ambulance response from American Medical Response (AMR) for 2.6 million dollars of Measure H funding allowing the County to achieve countywide rapid paramedic ambulance response.
2. After 1990 AMR was again the awardee of the ambulance service contract, this time providing paramedic ambulance services without a Measure H subsidy. This allowed the Board to re-direct that funding to expand fire paramedic first medical response for Contra Costa County Fire Protection District, Moraga-Orinda, Pinole, Rodeo-Hercules, and El Cerrito/Kensington Fire Districts in compliance with Title 22 regulatory requirements, as well as funding for expanded development of Countywide Systems of Care. In 2013 the Board of Supervisors re-allocated funding to support expanded EMT scope of practice for the remaining Measure H-Zone B Fire Districts; Richmond Fire and East Contra Costa Fire Districts.
3. In 2014 Contra Costa EMS System Modernization Study identified the need for an additional \$750,000 to sustain Countywide EMS System of Care programs. During the Request for Proposal (RFP) process, it was estimated that Alliance ambulance revenue would be limited to 3 to 5 million dollars per year after operational costs and EMS System investment and as a result a franchise fee associated with the ambulance service agreement was not supported.
4. Current EMS Systems of Care program and technology costs were fully illustrated in the October 5, 2017 finance report at:

Recommendation #1: Establish an interim annual EMS System Program enhancement contribution/investment of up to \$750,000 from available Board designated revenue sources until such time a new benefit assessment or other revenue source with a COLA could be established to support and enhance the Countywide EMS System.

EMS System program funding is recommended to be directed to the following technology and programs known to produce life-saving outcomes essential to Contra Costa County high performance EMS System service delivery:

Summary of Eligible Countywide Programs		
Countywide EMS System Program/Infrastructure	Purpose	Annual Funding Request
First Watch/First Pass Patient Safety and EMS Ambulance Compliance Data System	Current technology platform supporting ambulance response time compliance reporting. Data hub for all electronic patient care record oversight.	\$ 200,000
ImageTrend technology platform	Supports continuity of operations of online technology system supporting timely processing of ambulance provider permitting, EMT certification, ambulance equipment checks and training program authorizations and audits.	\$ 50,000
Medical Reserve Corps and Community Stop the Bleed and bystander CPR/AED and Public Access Defibrillation programs	Medical volunteer program critical to providing CPR outreach to communities and responding to support emergency shelter operations in real world disasters e.g North Bay Fires of 2017 and expanding school CPR education required under new CPR in schools regulations.	\$ 25,000
Bi-directional Prehospital Exchange with Hospitals	In April 2018 the Centers for Medicare and Medicaid will offer a State Health Information Exchange (HIE) grant to assist local EMS Agencies in achieving new requirements for bi-directional HIE. The annual funding level requested includes dollars for both the grant match and non-grant covered project management costs.	\$ 250,000
Med/Health Care Coalition, EMS and Hospital Preparedness Program (HPP) activities	Since 2009 state grant funding supporting HPP has decreased by \$900,000. This request supports minimal sustainable costs associated with countywide medical health dedicated disaster exercises and preparedness activities e.g. equipment, communications and program support.	\$ 150,000
ReddiNet EMS System emergency and disaster communication platforms	This represents the cost of medical health satellite and web based technology system and upgrades supporting all clinics, hospitals, dispatch centers, long term care facilities and OES emergency communications in day-to-day and multi-casualty and disaster conditions.	\$ 43,000

CARES (Cardiac Arrest Registry for Enhanced Survival)	National Registry annual subscription fee. National Cardiac Arrest Data Registry participation is required to meet EMSA standardized reporting requirements for Cardiac Arrest.	\$ 7,000
EBRCS radio and Satellite phones	Sustain and upgrade funding for EMS Program emergency radio and satellite phones required for coordination of Medical Health Operational Area Program (MHOAC) disaster response. Satellite phones were critical to the 2017 wildfire response in the first 72 hours of the event for ambulance strike team, evacuation and sheltering activities.	\$ 25,000
Total		\$ 750,000

Recommendation #2: Preserve and enhance the Fire First Responder funding by an additional 2 million dollars by moving forward by exploring a long term funding measure.

The EMS Agency Director did solicit input on priorities for funding from the Contra Costa Fire Executive Chiefs prior to this report but did not receive any recommendations from the group.

However, the EMS Agency is aware of the following Fire EMS System Countywide service delivery pursuits and has estimated the cost to be approximately 2 to 2.5 million dollars annually. These include:

1. **Richmond Fire-CCCFPD EMS Dispatch Consolidation:** This would provide uniform fire first medical response and ambulance for West County Community further improving EMS System response in those areas.
2. **Crockett-Carquinez Fire First Responder electronic patient care record system integration and training:** As a volunteer fire district the lack of funding has been the key barrier to support compliance with State and Local electronic health record implementation.
3. **Expanded First Responder Fire, Law, School and Child Care disaster, medical supplies, equipment, and training:** Integrating first responders to support first medical response regardless of discipline is the key to survival and improved outcomes in cardiac arrest, overdose and trauma in both day to day and disaster conditions.
4. **Richmond Fire and East Contra Costa Fire pursuits supporting Advanced EMT and/or Paramedic program development:** These agencies providing outstanding basic life support care as EMT optional scope have expressed the desire to serve their communities at the Advanced Life Support Level.
5. **Countywide expansion of First Responder Fire, Law, and School Defibrillation Programs, Public Access Defibrillation, *Heart-Safe* Community and Stop the Bleed programs:** It takes a village to implement, sustain and support community education programs and each of these programs have the potential to grow with improved funding. The programs also require compliance with Title 22 and other State regulation supported by the EMS Agency Medical Director and EMS System program staff.

- 6. Upgrade and enhancement of Fire First Responder and fire ambulance EMS electronic health care record platforms:** Technology requires regular updates and upgrades to assure continuity of operations. Currently exists no strategic funding to support future interoperable data and electronic health information systems.

Agency ³	Effective FY 2015-16 Full Implementation of Population Based Funding
Richmond (BLS)	\$ 223,022
El Cerrito/Kensington (ALS)	\$ 111,012
Pinole (ALS)	\$ 49,437
Rodeo-Hercules (ALS)	\$ 88,004
Crocket-Carquinez (BLS/volunteer)	\$ 7,063
Moraga Orinda (ALS/Transport)	\$ 92,748
East Contra Costa (BLS)	\$ 226,125
Contra Costa Fire (ALS)	\$ 1,533,722

Summary:

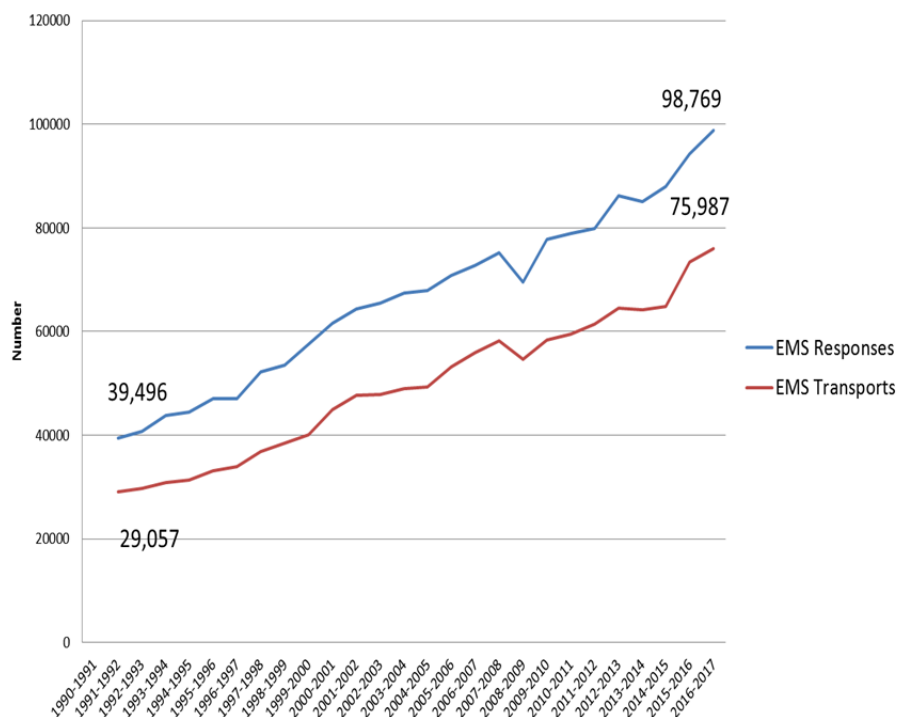
Measure H has provided a legacy of high value life-saving consumer EMS System enhancement; however, critical funding gaps are on the horizon and need to be addressed.

EMS funding gaps exist in the areas of sustaining and upgrading data systems, dispatch, medical health and disaster preparedness to support bi-directional health information exchange with hospitals; Systems of Care support to improve Cardiac Arrest, EMS for Children, STEMI, Stroke and Trauma; and upgrades in disaster communications (e.g. EBRCS, WebEOC, Satellite, Telemedicine).

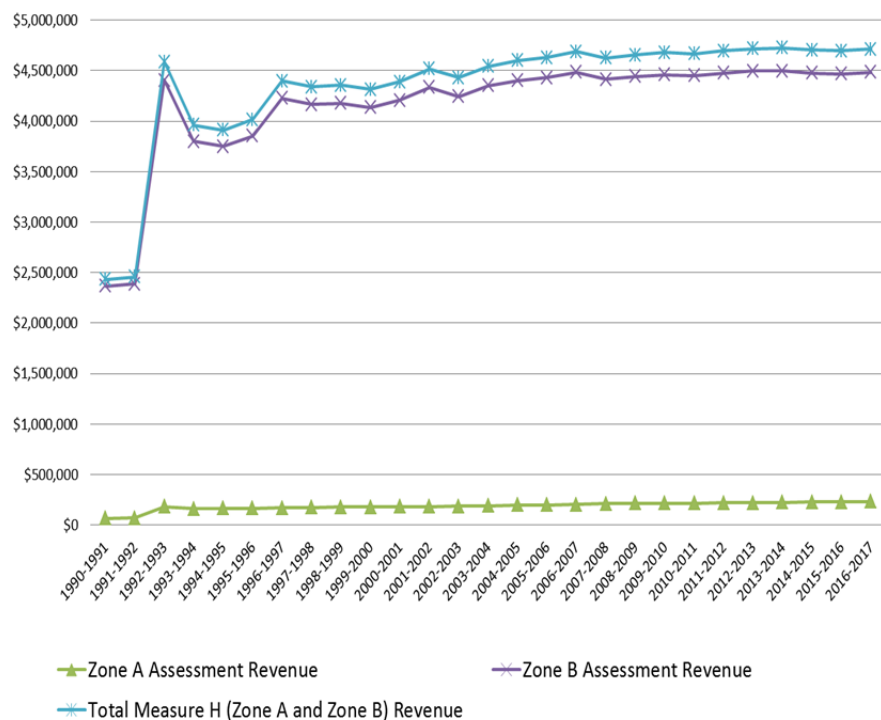
EMS programs and technology directly benefit the EMS System coordination and continuity of operations that are critical to saving lives. The EMS Director recommends that funding of critical technology required to sustain Contra Costa High Performance EMS System can be adequately supported for an additional three to five years through an annual investment of \$ 750,000 per year from available general funds, emergency ambulance revenue or other appropriate source(s). The annual contribution would sunset upon the County securing a long term revenue model dedicated to improving Contra Costa EMS services for all citizens in Contra Costa County.



**Contra Costa Emergency Medical Services
EMS Response and Transport History
1990-2016**



**Measure H (Zone A + Zone B) Revenue History
1990 to 2017**



CSA EM-1 (Measure H) Revenue History											
Fiscal Year	EMS Responses	EMS Transports	Zone A Assessment Rate	Zone B Assessment Rate	Zone A Assessment Revenue	Zone B Assessment Revenue	Total Measure H (Zone A and Zone B) Revenue	Levy and Use Code Fees	Available Funds	CPI Increases Medical Care All Urban	CPI All Urban Bay Area
1990-1991	NA	NA	\$1.64	\$5.48	\$66,873	\$2,365,795	\$2,432,668	NA	NA		
1991-1992	39,496	29,057	\$1.64	\$5.48	\$68,887	\$2,389,217	\$2,458,104	NA	NA	8.7	4.4
1992-1993	40,780	29,774	\$3.94	\$10.00	\$181,547	\$4,405,950	\$4,587,497	NA	NA	7.4	3.3
1993-1994	43,774	30,886	\$3.94	\$10.00	\$160,484	\$3,801,300	\$3,961,784	NA	NA	5.9	2.7
1994-1995	44,473	31,332	\$3.94	\$10.00	\$164,188	\$3,748,276	\$3,912,464	NA	NA	4.8	1.6
1995-1996	46,969	33,056	\$3.94	\$10.00	\$164,188	\$3,853,526	\$4,017,714	NA	NA	4.5	2.0
1996-1997	46,980	34,010	\$3.94	\$10.00	\$170,643	\$4,227,370	\$4,398,013	NA	NA	3.5	2.3
1997-1998	52,143	36,877	\$3.94	\$10.00	\$173,211	\$4,164,993	\$4,338,204	NA	NA	2.8	3.4
1998-1999	53,490	38,510	\$3.94	\$10.00	\$176,788	\$4,179,740	\$4,356,528	NA	NA	3.2	3.2
1999-2000	57,568	40,081	\$3.94	\$10.00	\$179,315	\$4,134,573	\$4,313,888	NA	NA	3.5	4.2
2000-2001	61,531	44,931	\$3.94	\$10.00	\$183,014	\$4,206,156	\$4,389,170	\$18,786	\$4,370,384	4.1	4.5
2001-2002	64,391	47,625	\$3.94	\$10.00	\$184,083	\$4,334,861	\$4,518,944	\$19,036	\$4,499,908	4.6	5.4
2002-2003	65,549	47,858	\$3.94	\$10.00	\$186,480	\$4,246,115	\$4,432,595	\$19,309	\$4,413,286	4.7	1.6
2003-2004	67,480	48,958	\$3.94	\$10.00	\$191,466	\$4,353,031	\$4,544,497	\$19,608	\$4,524,889	4.0	1.8
2004-2005	67,966	49,314	\$3.94	\$10.00	\$198,615	\$4,403,691	\$4,602,306	\$28,058	\$4,574,248	4.4	1.2
2005-2006	70,867	53,179	\$3.94	\$10.00	\$198,922	\$4,429,758	\$4,628,680	\$28,455	\$4,600,225	4.2	2.0
2006-2007	72,849	55,946	\$3.94	\$10.00	\$204,064	\$4,485,987	\$4,690,051	\$28,982	\$4,661,069	4.0	3.2
2007-2008	75,209	58,213	\$3.94	\$10.00	\$209,838	\$4,415,486	\$4,625,324	\$30,190	\$4,595,134	4.4	3.3
2008-2009	69,473	54,692	\$3.94	\$10.00	\$214,182	\$4,442,419	\$4,656,601	\$30,496	\$4,626,105	3.7	3.1
2009-2010	77,872	58,292	\$3.94	\$10.00	\$216,182	\$4,462,228	\$4,678,410	\$30,572	\$4,647,838	3.2	0.7
2010-2011	78,850	59,534	\$3.94	\$10.00	\$217,739	\$4,450,795	\$4,668,534	\$30,655	\$4,637,879	3.4	1.4
2011-2012	79,833	61,390	\$3.94	\$10.00	\$219,404	\$4,478,438	\$4,697,842	\$30,736	\$4,667,106	3.0	2.6
2012-2013	86,134	64,527	\$3.94	\$10.00	\$220,490	\$4,495,897	\$4,716,387	\$30,809	\$4,685,578	3.7	2.7
2013-2014	85,034	64,133	\$3.94	\$10.00	\$226,028	\$4,498,377	\$4,724,405	\$30,915	\$4,693,490	2.5	2.2
2014-2015	87,974	64,870	\$3.94	\$10.00	\$227,644	\$4,476,987	\$4,704,631	\$31,049	\$4,673,582	2.4	2.8
2015-2016	94,278	73,381	\$3.94	\$10.00	\$228,924	\$4,468,326	\$4,697,250	\$31,189	\$4,666,061	2.6	2.6
2016-2017	98,769	75,987	\$3.94	\$10.00	\$230,573	\$4,483,856	\$4,714,429	\$32,189	\$4,682,240	3.8	3.0
Totals					\$5,063,772	\$112,403,148	\$117,466,920			107.0	71.2

Measure H EMS System Investment by Population
Remarkable High Value Benefit to Contra Costa Citizens

Fiscal Year	CoCo Population	Total Measure H Revenue	Annual Measure H Investment Per Person	Daily Measure H Investment PerPerson
1990-1991	803,732	\$2,432,688	\$3.06	\$0.01
1992-1993	803,732	\$4,587,497	\$5.71	\$0.02
1999-2000	948,816	\$4,313,888	\$4.63	\$0.01
2010-2011	1,024,809	\$4,668,534	\$4.58	\$0.01
2016-2017	1,135,127	\$4,714,429	\$4.15	\$0.01