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# Solano County EMS

# ANNUAL REPORT

FY 2013-14

County of Solano Emergency Medical Services Agency Health and Social Services Department Public Health Division



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#### I. INTRODUCTION

#### A. **EXECUTIVE SUMMARY**

This Annual Report covers the reporting period of July 1, 2013 through June 30, 2014.

During this reporting period, many changes to the Solano EMS System have been proposed, evaluated, and in some cases adopted and supported by the Board. The American College of Surgeons (ACS), an internationally recognized expert association on Trauma, verified a second Level II Trauma Center in the county. The ACS does not designate centers. The California Code of Regulations only allows for local EMS Agencies to designate one Level I or Level II Trauma Center for catchment areas serving populations of at least 350,000 people. Thus, Solano County can only support designating one center. At this time Kaiser Foundation Hospital, Vacaville is the designated Level II Trauma Center in Solano County.

This year the American College of Emergency Physicians designated May 18-24, 2014 National EMS Week. The EMS Appreciation Barbecue was held at Rush Ranch in Suisun on May 17, 2014. The awards presentation honoring medical service professionals who often go unrecognized for the service they provide was held during this event. Michael Humphrey-Parris of Vallejo Fire was the recipient of the Frank Springer Award. Once again Medic Ambulance and various partners, including Cordelia Fire Protection District, Kaiser Permanente, NorthBay Healthcare, Vacaville Fire, and Vallejo Fire worked alongside Solano EMS to manage the planning and execution of EMS Week events. The EMS Public Day was held at the NorthBay Conference Center on May 21, 2014 where free CPR classes were held, as well as an Injury Prevention and Health Fair. The event was again well attended this year and it is anticipated that this public service will be continued on into the coming years.



### B. <u>SOLANO EMERGENCY MEDICAL SERVICES COOPERATIVE</u> (SEMSC)

The mission of the Solano Emergency Medical Services Cooperative (SEMSC) is to deliver effective prehospital care at a reasonable cost to the people of Solano County by coordinating and maximizing resources. The core values of this system include:

**RAPID RESPONSE** – intended to minimize the time from the actual emergency event to the arrival of appropriate emergency resources.

<u>ACCOUNTABILITY</u> – in order to ensure that the EMS system is performing according to required standards, all aspects of prehospital care delivery are measured, validated, and reported to the SEMSC Board and made available to the public.

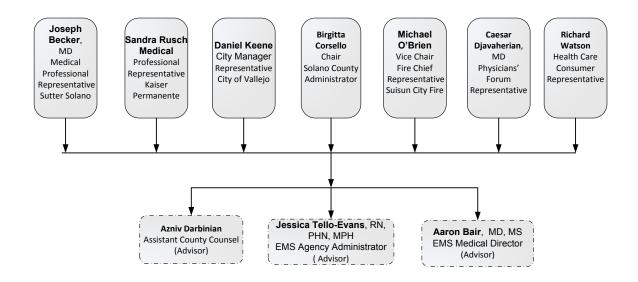
<u>COMPETENCY</u> – providers of prehospital care must be held accountable to provide the highest standards of medical care.

The SEMSC Board of Directors is made up of seven (7) members as specified in the bylaws. Membership as of the end of this reporting period is shown below.

Solano County Emergency Medical Services Cooperative (SEMSC)

Board of Directors

6/30/2014



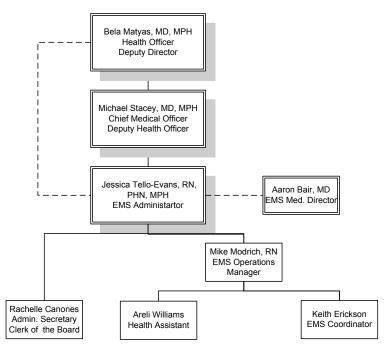


#### C. <u>EMERGENCY MEDICAL SERVICES (EMS) AGENCY</u>

Emergency Medical Services (EMS) is unique in that it requires the coordination of entities which are otherwise completely independent from each other. It is the role and responsibility of the Solano EMS Agency to achieve this coordination through planning, policies and procedures, promulgation of standards, and the monitoring of operational and medical performance. Ultimately, an effective EMS system requires the cooperation of Public Safety Dispatch, fire service, ambulance providers (ground and air), hospital personnel, physicians, nurses, and administrators.

The Solano County EMS Agency Staff employs a small group of professionals who plan the coordination of the elements required to seamlessly respond to individual and community emergencies. This is accomplished by working with acute care hospitals, fire departments, ambulance providers, law enforcement, State Agencies, and others in public health to plan, manage, and evaluate the essential components of emergency response.

Solano Public Health EMS Agency (as of June 30, 2014)





#### II. MAJOR ACCOMPLISHMENTS

#### A. <u>EMS WEEK</u>.

EMS Week is a national event that honors emergency personnel nation-wide. Solano County has a strong cadre of emergency personnel who provide emergency first response, transport, and care to residents and visitors. The Solano County Board of Supervisors recognized EMS week with a Resolution that declared May 18-24, 2014 as Solano County Emergency Medical Services Week.

This year, EMS again held a Barbecue/Picnic that was more family-oriented. It was held on May 17, 2014 at Rusch Ranch on Grizzly Island Road in Suisun, and was very well received.

The Frank Springer Award, which recognizes an individual for their outstanding commitment and contributions to improving emergency medical services for the citizens of Solano County, was presented to Vallejo Fire's Michael Humphrey-Parris this year. He was honored for his vast experience in EMS. Parris' nomination was made anonymously, but the entry letter stated that "Mike possesses the intangible qualities it takes to be a great paramedic. What stands out above all else is his compassion for others and his passion to ensure that each patient gets the best care possible. His bedside manner and humanity is unrivaled. He has been known to visit patients after treating them just to make sure they are doing alright." The Frank Springer Award is in honor of the Assistant Vallejo Fire Chief who served Solano County from 1975 to 1998.

Various EMS partners including Fire Departments, Hospitals, CALSTAR, and Medic Ambulance also gave recognition to some of their own employees. Cordelia Fire Department, as in the past, provided crucial meeting space for the EMS Week planning meetings that were required to ensure this event ran smoothly, while Medic Ambulance, CALSTAR, Kaiser Permanente, NorthBay Healthcare, REACH, and Vacaville Fire comanaged oversight of this event, and their personnel played a key role in developing the EMS Week program.

The EMS Public Day was held on Wednesday, May 21, 2014 at the NorthBay Conference Center in Green Valley. Free Public CPR classes (traditional and "hands only") were coordinated by Medic Ambulance. An injury prevention and health fair was held the same afternoon and featured blood pressure checks, safety demos, car seat safety, and a simulation lab tour among other activities. Other vendors were present to show their support and give back to the community in honor of EMS Week.



#### B. <u>STEMI SYSTEM</u>

NorthBay Medical Center and Kaiser Foundation Hospital, Vallejo continue to be designated as STEMI Receiving Centers (SRC) in Solano County. Solano County currently has agreements with a number of out-of-county hospitals that receive STEMI patients from Solano County, but with the designation of NorthBay and Kaiser Vallejo as STEMI Receiving Centers, Solano County residents are able to receive cardiac care much sooner and closer to home. This is a vital component of the system considering the 90-minute window of time for treatment that is generally viewed as critical in providing better patient outcomes following cardiac emergencies.

#### C. TRAUMA SYSTEM

NorthBay Medical Center in Fairfield continues to be designated as a Level III Trauma Center in Solano County. Although they have been verified by the ACS as a Level II Trauma Center, the ACS does not designate Trauma Centers. Kaiser Foundation Hospital, Vacaville is the only designated Level II Trauma Center in Solano County. This enhancement to emergency service means that many patients who suffer a traumatic event will be able to remain closer to their families in Solano County for their care.

The trauma system is now relatively stable in the volume of patients remaining in Solano County after their injury. A few patients in the southernmost county areas are geographically closer to one of our designated Out-of-County Trauma Centers, John Muir Medical Center. Patients in need of additional advanced services available at the University of California at Davis Medical Center are transported to their facility. The EMS Agency's next step is to monitor the trauma system including the trauma centers, other receiving hospitals, and the Advanced Life Support (ALS) provider to ensure the delivery of continued high-quality EMS and trauma care.



#### D. <u>EMERGENCY MEDICAL SERVICES PROGRAMS</u>:

#### 1. FIELD ADVISORY REPORTS (FARs):

Solano County EMS Policy 2305 provides guidance to field personnel and EMS Staff regarding the identification and processing of Field Advisory Reports (FARs). FARs can address problems or potential problems as well as positive issues, with the express purpose of improving the delivery of prehospital care in Solano County.

Investigations can be as simple as one phone call, or require several phone calls, emails, and meetings to effectively resolve the issue noted in the specific FAR. During this reporting period, 134 FARs were submitted, with 107 investigated and closed, for an 80% closure rate

### 2. EMERGENCY MEDICAL TECHNICIAN (EMT) CERTIFICATIONS and PARAMEDIC ACCREDITATIONS:

Solano County EMS processes all EMT certifications and Paramedic accreditations for Solano County personnel. A total of 310 EMTs were certified; including initial EMTs and recertifying EMTs. For Paramedics, there were a total of 142 personnel processed. This included student interns, initial paramedics, as well as reaccreditations.



#### III. FINANCIAL UPDATE

Shown below is information for Fiscal Year 2013/14 financial activity:

Salaries & Benefits	\$606,818
Includes net wages, employer-paid payroll and	+ ,
benefit expenses, etc.	
Services & Supplies	\$1,708,619
Includes \$1,470,616 in Public/Private Partnership	
(PPP) payments; and all contracts for services,	
travel and training costs, operational expenses,	
etc.	
Transfers outside H&SS Fund Includes countywide	\$20,734
overhead charges, custodial, records storage and post-	
age charges from other county departments.	
Transfers within H&SS Fund	\$23,451
Includes H&SS overhead and administrative costs	
TOTAL EXPENSES	\$2,396,667
TOTAL EXPENSES	\$2,396,667
Licenses, Permits & Franchise	<b>\$2,396,667</b> \$880,377
Licenses, Permits & Franchise Includes franchise fees, personnel certification	
Licenses, Permits & Franchise	
Licenses, Permits & Franchise Includes franchise fees, personnel certification fees, non-exclusive operating fees, designation	
Licenses, Permits & Franchise Includes franchise fees, personnel certification fees, non-exclusive operating fees, designation fees, etc.	\$880,377
Licenses, Permits & Franchise Includes franchise fees, personnel certification fees, non-exclusive operating fees, designation fees, etc.  Fines, Forfeitures & Penalty	\$880,377
Licenses, Permits & Franchise Includes franchise fees, personnel certification fees, non-exclusive operating fees, designation fees, etc.  Fines, Forfeitures & Penalty Includes Maddy funds, Public/Private Partnership	\$880,377
Licenses, Permits & Franchise Includes franchise fees, personnel certification fees, non-exclusive operating fees, designation fees, etc.  Fines, Forfeitures & Penalty Includes Maddy funds, Public/Private Partnership revenues, etc.	\$880,377 \$1,470,670



#### IV. EMS SYSTEM PARTICIPANTS

#### A. <u>ADVISORY COMMITTEES</u>

#### 1. Physicians' Forum

The EMS Physicians' Forum met quarterly during this reporting period to review and evaluate patient care; and to develop, review, and approve policies and protocols affecting patient care. Membership includes emergency physician/nurse representatives from area hospitals, pre-hospital representatives from fire departments, as well as EMS Agency staff.

#### 2. STEMI Committee

The STEMI committee meets quarterly and is charged with monitoring the care of Solano County EMS patients with STEMI and to identify opportunities for improvement in STEMI care in a forum that is disclosure-protected according to Evidence Code Section 1157.7. Membership includes emergency physicians from the Physician's Forum committee, cardiologists, interventionalists, and others involved in STEMI care; medical directors or representatives from STEMI Receiving Centers; EMS providers, PCC/CQI representatives, and hospital administrators.

#### 3. Process Improvement Committee (formerly PCC-CQI)

The Process Improvement Committee meets quarterly and membership includes emergency physicians and nurses, Emergency Department Approved for Pediatrics (EDAP) designated hospital personnel, and pre-hospital care providers from each of the County's first responder agencies, as well as ambulance providers (ground and air). Responsibilities include reviews, audits, and studies to ensure that the CQI process functions effectively.

#### 4. Trauma Advisory Committee

The Field Trauma Advisory Committee (Field-TAC) and Trauma Advisory Committees were merged in the new meeting format. This group meets quarterly and is responsible for reviewing select trauma cases occurring in Solano County to determine if care provided was appropriate and that destination decisions were appropriate to the injury incurred. This group includes members from local Trauma Centers, including Trauma Surgeon Medical Directors and Trauma Program Managers, Physicians' Forum members, Coroner's Office Officials, and EMS personnel.



#### B. <u>EMERGENCY AMBULANCE PROVIDERS (GROUND)</u>

- 1. Medic Ambulance, Inc. holds the Exclusive Ambulance Agreement for all Advanced Life Support (ALS) transport in Solano County, except for the City of Vacaville and Zone "C" where the Vacaville Fire Department is charged with providing 9-1-1 response. Medic also provides ambulance service for portions of Sacramento County including the City of Isleton and River Delta Fire Protection District; as well as Gordon Valley Fire Protection District in Napa County.
- 2. Vacaville Fire Department As specified in the State EMS Authority approved EMS Plan, Vacaville Fire Department provides 9-1-1 response to the City of Vacaville and "Zone C." The Vacaville Fire Department has been providing emergency ALS First Response and transport since the mid 1970's. The City is recognized as a "201 entity" under the State of California Health & Safety Code Division 2.5, Section 1797.201.

#### C. NON-EMERGENCY AMBULANCE TRANSPORT PROVIDERS

The Solano Emergency Medical Services Cooperative (SEMSC) Board of Directors implemented Resolution 10-02 requiring any and all operators and providers of ambulance service to persons and facilities in Solano County to be authorized by the Solano County EMS Agency.

Ambulance companies wishing to provide Basic Life Support (BLS) or Critical Care Transport (CCT) in Solano County must submit a detailed application prior to providing service. The transport provider list changes periodically. During this reporting period the following ambulance companies were authorized to provide Basic Life Support (BLS), and/or Critical Care Transport (CCT) services **ONLY**:

- Bay Medic
- Falcon CCT
- NorCal Ambulance
- Piner
- Protransport
- Sacramento Valley Ambulance
- VeriHealth (Falck)
- Westmed Ambulance



#### D. <u>EMERGENCY AMBULANCE PROVIDERS (AIR)</u>

Solano County has the benefit of being served by three air ambulance providers: CALSTAR (California Shock/Trauma Air Rescue) with bases at Buchanan Field in Concord, and Sacramento. REACH Air Medical Services with bases in Concord, Lakeport, and Santa Rosa; and the California Highway Patrol (CHP), which has a helicopter capable of transporting injured persons, stationed at the Napa Airport.

#### E. <u>FIRST RESPONDERS (ALS & BLS)</u>

The residents of Solano County are served by fire departments in each locale. Fire departments in the cities of Benicia, Dixon, Fairfield, and Vallejo are part of the Public Private Partnership (PPP) and each provides ALS first responder support to area residents. The City of Rio Vista and Cordelia Fire Protection District provide first responder ALS service, but are not part of the Public Private Partnership. Suisun City provides only basic life support (BLS) for its residents.

There are several Fire Protection Districts throughout the County providing emergency medical response service where most firefighter/EMTs are volunteers.



#### IV. SOLANO COUNTY

#### A. OVERVIEW

Solano County was formed in 1850 and covers 909.4 square miles.
 This includes 84.2 square miles of water area and 675.4 square miles of rural land area. Solano County is bordered by Contra Costa, Napa, Sacramento, Sonoma, and Yolo Counties. Solano County is located approximately 45 miles northeast of San Francisco and 45 miles southwest of Sacramento.

Solano County's population ranking is 38 out of 58 counties statewide, with a population of 418,387 as of January 2013.

Fairfield serves as the County Seat. It is interesting to note that both Benicia and Vallejo had the honor of serving as the State Capital in the early 1850's.



2. The structure of Solano County's EMS System remains a "high performance model." Medic Ambulance Service, Inc. was awarded the exclusive ambulance contract in May 2010 and provides Advanced Life Support (ALS) service for all of Solano County with the exception of the City of Vacaville and Zone C. Medic Ambulance has a response time standard of 12 minutes in the four Public Private Partnership (PPP) Cities of Benicia, Dixon, Fairfield, and Vallejo and a nine minute response time requirement in Rio Vista and Suisun. Rural calls are allowed a 15 minute response time and remote calls have a 90 minute response time.

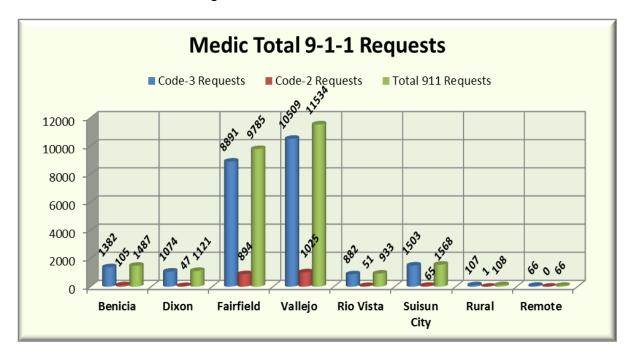


- 3. The PPP Agreement between Medic Ambulance and the Cities of Benicia, Dixon, Fairfield, and Vallejo allow the fire departments in these cities to operate under a high performance contract with Medic Ambulance that is substantially similar to the contract SEMSC entered with Medic Ambulance. This agreement allows Medic Ambulance Crews an additional three minutes to arrive on scene as the Fire Departments provide "first response" service (within seven minutes) to their communities.
- 4. Compliance figures for Medic Ambulance Service remain exceptional, at an average of 99% during this reporting period. The Paramedics and EMTs working for Medic Ambulance have continued to provide exceptional care to the citizens of Solano County as well as visitors to our local area.
  - Benicia Fire, Dixon Fire, Fairfield Fire, and Vallejo Fire Departments continue to maintain outstanding response times. The PPP participating cities have all maintained average response times of 90% or better during this reporting period.
- 5. Solano County has an unincorporated area of approximately 675 square miles these are rural and remote areas and are supported by various volunteer fire departments as well as Medic Ambulance, and other responders on an as-required basis. These unincorporated areas do not include the area designated as "Zone C" that is supported by the Vacaville Fire Department.

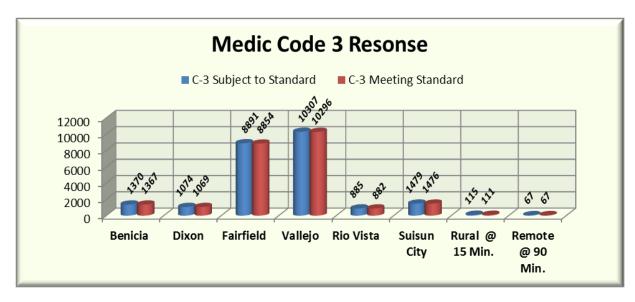


#### B. <u>MEDIC AMBULANCE</u>

With over 26,500 9-1-1 calls, the total 9-1-1 responses by Medic Ambulance are shown below for each city in Solano County, including the Rural and Remote area categories.



Medic's Code 3 responses are shown by city, the appropriate response time noted below for rural and remote areas. Response time for Benicia, Dixon, Fairfield, and Vallejo is 12 minutes or better, and the response times for Suisun and Rio Vista are nine minutes or better.



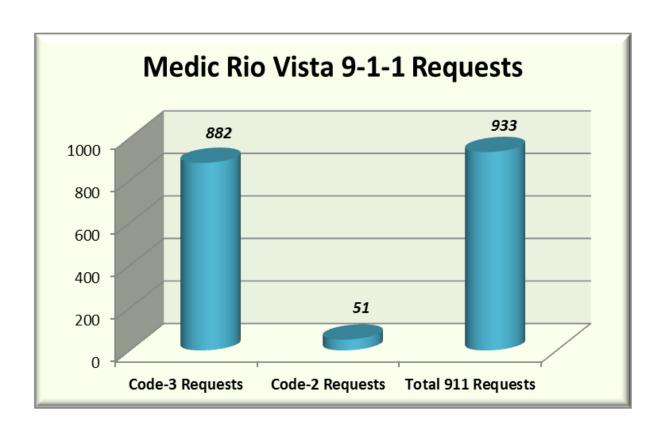




#### C. RIO VISTA

Located on the Solano County side of the Sacramento River, Rio Vista is the most isolated of the communities in Solano County. The estimated population in Rio Vista as of January 2013 was 7,599. Medic Ambulance provides a dedicated unit to the City of Rio Vista due to its isolated location.

Ambulance response times in Rio Vista are outstanding, with an average compliance rate of 99.7% for this reporting period. This is based on a nine-minute response time since Rio Vista is not part of the Public Private Partnership.



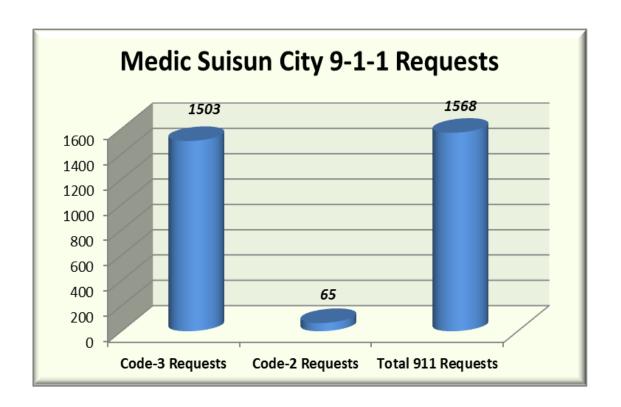




#### D. SUISUN CITY

Suisun City was incorporated as a city in 1868 and is the fourth most populous city in Solano County. The city population is 28,234 as of January 2013. The city is situated on 4.2 square miles – which makes it the most densely populated city in Solano County. As a comparison, Benicia, with an estimated population of 27,163 is situated on 14 square miles. Growth estimates for Suisun City put it at approximately four percent per year.

Suisun City is one of two cities in Solano County (not including Vacaville) that is not part of the Public Private Partnership. Additionally, Suisun City Fire Department provides only Basic Life Support (BLS) service as they do not have Paramedic (ALS) service. Medic Ambulance provides Advanced Life Support (ALS) coverage with an average response time compliance rate of 99.8%.







#### E. VACAVILLE

The City of Vacaville was incorporated in 1892. Today the city comprises just under 27 square miles. The current estimated population of Vacaville in January 2013 was 92,677, making Vacaville the third most populous city in Solano County. Located along the I-80 corridor, Vacaville hosts a large number of daily commuters which adds to the challenge of responding in an expeditious manner during rush hour.

Vacaville Fire Department has provided uninterrupted service to the City of Vacaville since 1976. The City is recognized as a "201 entity" under Government Code 1797.201.

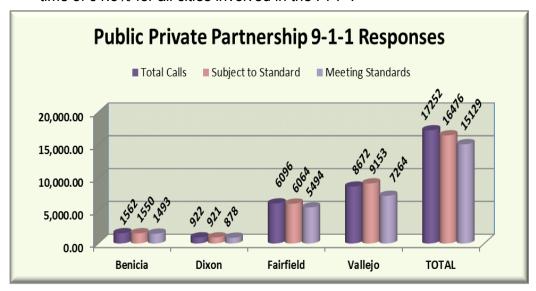
Vacaville Fire reported that they responded to approximately 5,639 calls during this reporting period. Code 3 responses were 5,393 while Code 2 responses were 246.

Response times in the City of Vacaville are established at seven minutes for urban calls within the city limits and 15 minutes for rural calls. It should be noted that **all** calls outside the city limits, regardless of distance, are considered "rural" and measured at the 15 minute standard. This designation is based on historical precedent. Vacaville Fire self reports their compliance rate for Code 3 calls at 92.9% and 89.9% overall for all calls. The average response time for all calls during this fiscal period is reported to be five minutes twelve seconds.

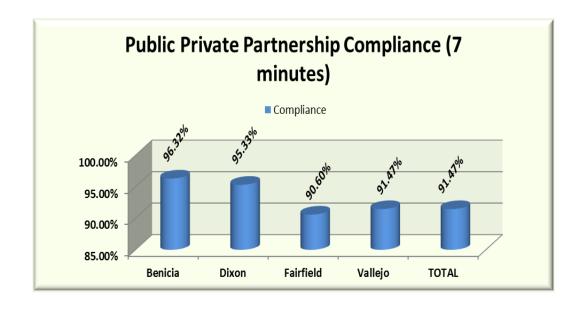


#### F. PUBLIC PRIVATE PARTNERSHIP

The Public Private Partnership (PPP) Fire Department figures are presented here, with city specific details to follow. Total Calls include "Code 3" and "Code 2" calls with a total of well over 17,000 calls with an overall response time of 91.5% for all cities involved in the PPP.



The compliance rate for each PPP city for "Code 3" responses is indicated below. The response time requirement for these calls is seven minutes or less. We are pleased to note that all PPP cities have posted compliance rates of 91.5% or better for this reporting period.



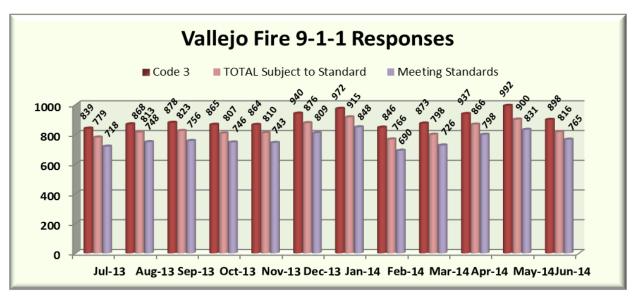


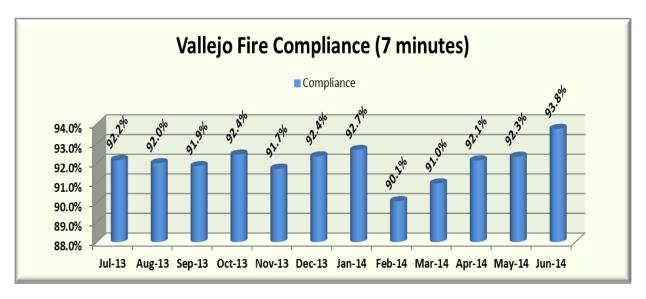


#### 1. Vallejo

Vallejo, with an estimated population of 117,112 (January 2013), is the most populous city in Solano County. Vallejo and its surrounding community cover over 53.58 square miles, which includes 23.64 square miles of waterways. Vallejo held the honor of being one of California's early state capitals in the 1850's.

Vallejo Fire Department provides ALS first response to the residents of Vallejo. The total 9-1-1 calls for Vallejo Fire in this reporting period were 10,772 with a compliance rate of 92.1% at seven minutes. Medic Ambulance, providing ALS transport service for Vallejo had a 99.9% compliance rate at a 12-minute response time standard.





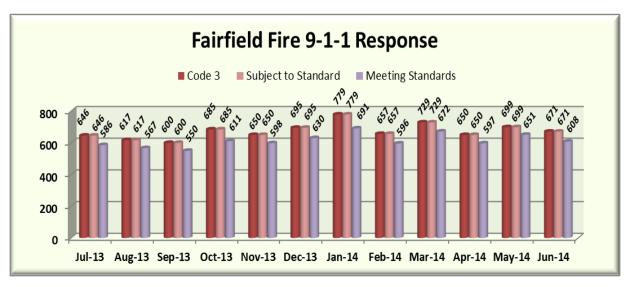


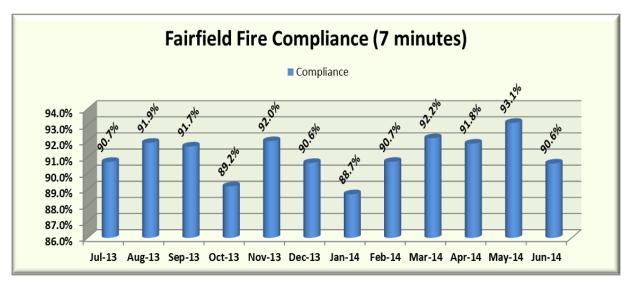


#### 2. Fairfield

Fairfield is the second most populous city in Solano County with an estimated population, as of January 2013, of 108,207. As the County Seat for Solano County, Fairfield is a thriving community in the heart of Solano County with an estimated annual growth of two percent.

Fairfield Fire Department provides ALS First Response for the city and surrounding areas. They responded to a total of 8,078 "9-1-1" calls during this reporting period, with a 91% compliance rate at seven minutes. Medic Ambulance provides ambulance transport, with an average response time compliance rate of 99.6% at 12 minutes.







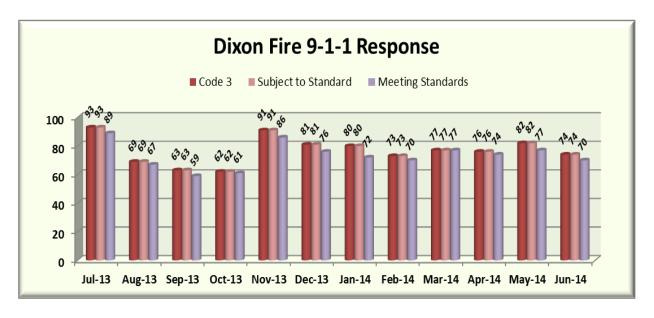


#### 3. Dixon

The City of Dixon lies in the northern portion of Solano County and is in a predominantly rural area. The city covers 6.7 square miles and the estimated population was 18,449 in January 2013. Their population grew by 4.8% compared to 2011.

Dixon Fire Department provides the ALS First Response for Dixon and the areas surrounding. They responded to a total of 938 "9-1-1" calls during this reporting period.

Their average compliance percentage (at seven minutes) for the reporting period was 95%. Medic Ambulance provides ambulance transport, with an average response time of greater than 99.5% at 12 minutes.









#### 4. Benicia

With an estimated population of 27,163 in January 2013, Benicia is the fifth most populous city in Solano County. Benicia Fire Department provides ALS First Response for the citizens of Benicia as well as those persons visiting the area, with Medic Ambulance, Inc. as the transporting ambulance provider. With a total of 1,560 911 responses, the response time percentage for Benicia Fire Department for the July 2013 – June 2014 reporting period was calculated at 96% at seven minutes or less. Medic Ambulance's average response time percentage was at 99.8% at 12 minutes.

