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SOLANO
PUBLIC
HEALTH



Solano County EMS

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ANNUAL REPORT

FY 2009-10

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



SOLANO COUNTY EMERGENCY MEDICAL SERVICES ANNUAL REPORT July 1, 2009 – June 30, 2010

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I. INTRODUCTION

A. EXECUTIVE SUMMARY

This Annual Report will cover the reporting period of July 1, 2009 through June 30, 2010. This will align our reporting with Solano County as directed in the SEMSC Bylaws. We are also expanding our annual report to include other areas of the Emergency Medical Service community that support Solano County.

This reporting period has seen changes for the Solano County Emergency Medical Services Agency as well as the service providers in Solano County.

- Mr. Ted Selby was appointed as the Emergency Medical Services (EMS) Administrator, effective May 17, 2010.
- The Emergency Services Bureau, comprised of the Emergency Services Agency and Emergency Preparedness and Response, was formed to provide more inclusive service to the citizens of Solano County.
- Medic Ambulance, Inc., was awarded the exclusive ambulance agreement to provide Advanced Life Support (ALS) service to Solano County effective May 1, 2010 (with the exception of the City of Vacaville).
- The Public Private Partnership (PPP) Agreement between Medic Ambulance and the Cities of Benicia, Dixon, Fairfield, and Vallejo was effective May 1, 2010. The SEMSC Chairman signed on behalf of the SEMSC on April 13, 2010, and Medic Ambulance signed on April 22, 2010. The Cities of Benicia, Dixon, Fairfield, and Vallejo signed on April 29 and April 30, 2010..
- Although the EMS Agency staff has remained the same, the system reporting requirements and responsibilities have grown. As growth continues the Agency will endeavor to increase the staff to perform the necessary functions.



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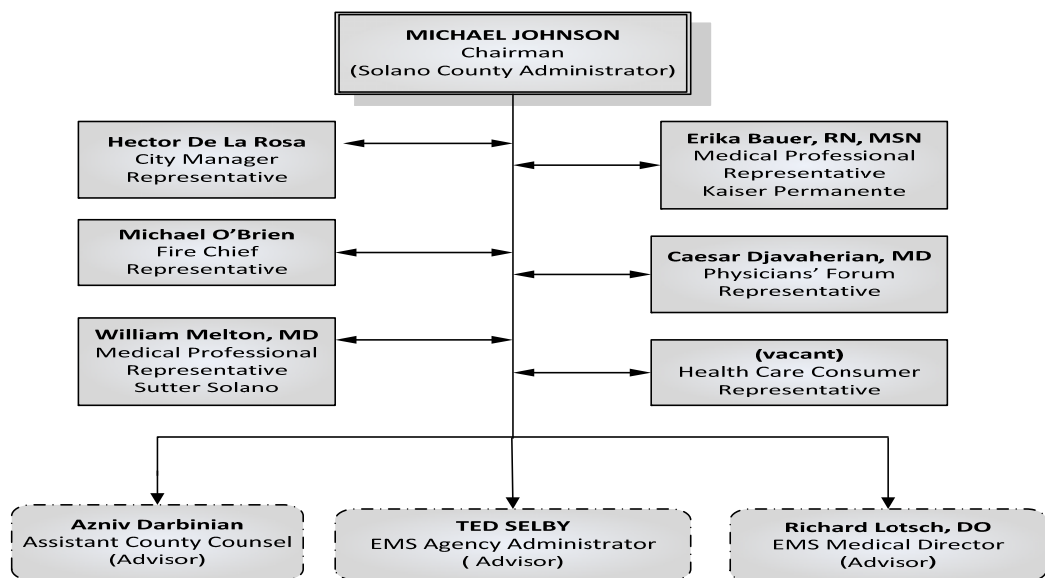
B. SOLANO EMERGENCY MEDICAL SERVICES COOPERATIVE (SEMSC)

As noted in the SEMSC Bylaws “The SEMSC serves as the Emergency Medical Services Agency for Solano County and is a joint powers agency capable of providing, or arranging for all fully-integrated, consumer-oriented pre-hospital and parahospital services in Solano County.” 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.
- **ACCOUNTABILITY** – in order to ensure that the EMS system is performing according to required standards, all aspects of prehospital care delivery is measured, validated, and reported to the SEMSC Board and is available to the public.
- **COMPETENCY** – 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. Current membership is shown below.

**Solano County Emergency Medical Services Cooperative (SEMSC)
Board of Directors
6/30/2010**



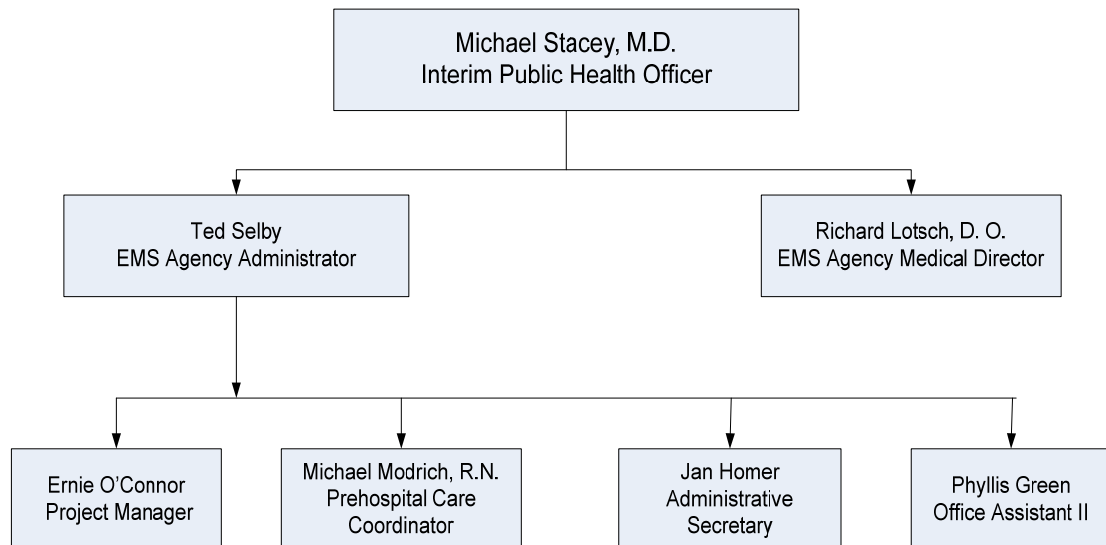


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C. EMERGENCY MEDICAL SERVICES (EMS) AGENCY

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, as the LEMSA for Solano County, 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. We do this 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.





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II. MAJOR ACCOMPLISHMENTS

A. STEMI PROGRAM

On April 1, 2010, the Emergency Services Bureau launched a STEMI Care Program with the objective of delivering state-of-the-art medical care to STEMI heart attack victims in order to minimize heart damage and improve patient survival. The cornerstones of this program include rapid EMS response, use of 12-lead ECG to identify STEMI, early notification of STEMI Receiving Center (SRC), prehospital administration of aspirin, IV initiation and cardiac monitoring, rapid transport to a STEMI Receiving Center for primary PCI, and data collection and reporting to the Emergency Services Bureau.

There are currently five out-of-county hospitals receiving STEMI patients from Solano EMS units as no hospitals in Solano County were prepared to deliver 24/7/365 primary Percutaneous Coronary Intervention (PCI). These five hospitals have demonstrated quality STEMI care in their local EMS systems and are strategically located to be able to provide primary PCI to Solano EMS patients within the critical time frame. Three of these hospitals have established agreements with Solano County. The other two hospitals' agreements are still being negotiated.

B. TRAUMA PLAN

Solano County Emergency Medical Services' Trauma Plan was approved by the State Emergency Medical Services Authority (EMSA) in June 2010. This is the first "approved" trauma plan for Solano County and puts us in the position of more fully addressing trauma requirements for this county.

C. EMERGENCY SERVICES BUREAU

The EMS Agency and the Emergency Preparedness & Response (EPR) Program have been combined into the Emergency Services Bureau. This mirrors changes made throughout many of the state's EMS Agencies.

D. APPOINTMENT OF NEW EMS ADMINISTRATOR

Mr. Ted Selby, the chief of Public Health Emergency Preparedness and Response (EPR) was appointed as the EMS Agency Administrator in May 2010. EMS and EPR were combined to create the Emergency Services Bureau.



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III. EMS SYSTEM PARTICIPANTS

A. ADVISORY COMMITTEES

1. Physicians' Forum

The mission of the EMS Physicians' Forum is to review and evaluate the safety, adequacy, appropriateness, and effectiveness of the emergency medical care provided to citizens of Solano County. This committee meets monthly to review and evaluate patient care, develop, review, and approve policies and protocols affecting patient care. Membership includes emergency physician/nurse representatives from the area hospitals, pre-hospital representatives from the fire departments, as well as EMS Agency staff.

2. STEMI Committee

Solano County's newest medical review committee 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 the STEMI Receiving Centers; EMS providers, PCC/CQI representatives, and hospital administrators.

3. Pre-hospital Care Committee (PCC) and Continuous Quality Improvement (CQI)

The PCC Committee meeting was combined with the CQI meeting in 2006 in order to better monitor pre-hospital care provided in Solano County as well as the necessary reviews, studies, and audits required to ensure that the CQI process was working effectively. This committee meets quarterly and membership includes emergency physicians and nurses, pre-hospital care providers from each of the County first responder agencies and ambulance providers (ground and air).

4. Pre-hospital Trauma Advisory Committee (Pre-TAC)

The pre-hospital Trauma Advisory Committee (Pre-TAC) replaced the Helicopter Utilization Review Committee (HURC) in 2008. This committee 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.



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B. EMERGENCY AMBULANCE PROVIDERS (GROUND)

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. The Agreement was approved and awarded effective May 1, 2010. Medic Ambulance is charged with providing 9-1-1 response within all of Solano County, with the exception of the City of Vacaville and Zone "C." They also provide ambulance service for portions of Sacramento County including the City of Isleton, River Delta Fire Protection Districts, and Gordon Valley Fire Protection Districts.

In 2007, culminating a lengthy evaluation, Medic Ambulance became the first ambulance company in Northern California to achieve a full three-year accreditation from the Commission on the Accreditation of Ambulance Services (CAAS).

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 2.5, Section 1797.201. Zone C is considered grandfathered in accordance with Section 1797.224.

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.

To date, the following ambulance companies are authorized to provide NON-EMERGENCY TRANSPORT (Basic Life Support, BLS or Critical Care Transport, CCT ONLY):

- American Medical Response (AMR),
- Bay Medic
- Falcon CCT
- NorCal Ambulance
- Piner
- Protransport 1
- VeriHealth

This list does change periodically.



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D. EMERGENCY AMBULANCE PROVIDERS (AIR)

Solano County has the benefit of being served by three air ambulance providers: CALSTAR (California Shock/Trauma Air Rescue) with a base station in Solano County at the Nut Tree Airport as well as Buchanan Field, and in Sacramento; REACH Air Medical Services with bases in Concord, Napa and Santa Rosa; and the California Highway Patrol (CHP), which has an air ambulance stationed at the Napa Airport.

E. FIRST RESPONDERS (ALS & BLS)

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 and each provides the ALS first responder support to area residents. The City of Rio Vista and Cordelia Fire District provide first responder ALS support 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.



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IV. SOLANO COUNTY

A. OVERVIEW

1. 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. Bordered by Napa, Yolo, Sacramento, and Contra Costa counties, Solano County is located approximately 45 miles northeast of San Francisco and 45 miles southwest of Sacramento. This is an ideal location to benefit from the myriad opportunities available in the surrounding areas.

Fairfield is the County Seat, with both Benicia and Vallejo having the honors 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 of 12 minutes in the four PPP cities and a 9 minute response time 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 Public Private Partnership (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 the Solano Emergency Medical Services Cooperative (SEMSC) substantially similar to the contract with Medic Ambulance. This agreement allows Medic Ambulance Crews an additional 3 minutes to arrive on scene as the Fire Departments provide "first response" service (within 7 minutes) to their communities.



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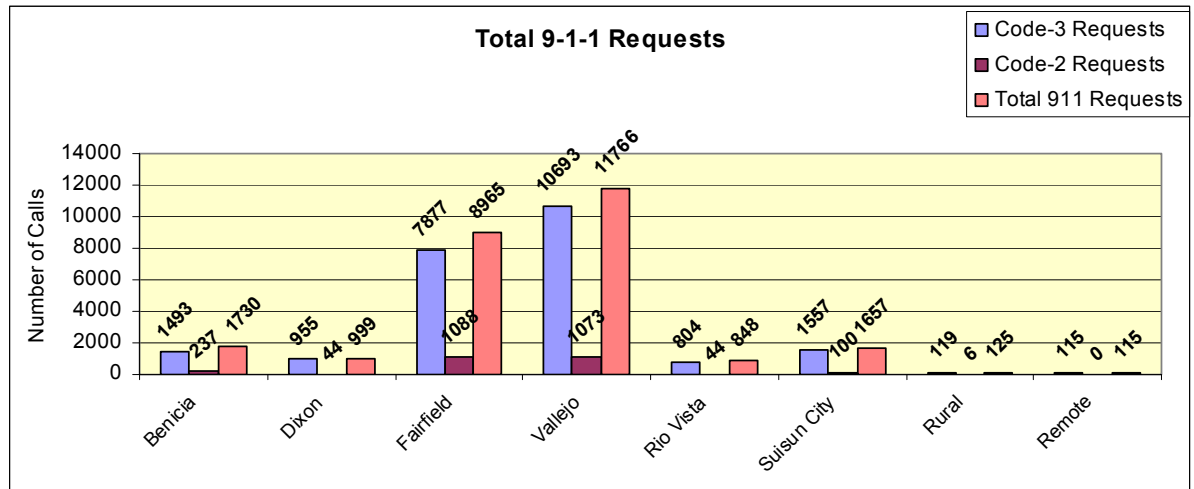
4. Compliance figures, by both Medic Ambulance Service as well as the Fire Departments remained exceptional during this reporting period. Vallejo Fire Department has suffered through closure of several of their fire stations, which has impacted their response time. This could put them in a very tenuous position vis a vis the Public Private Partnership agreement.



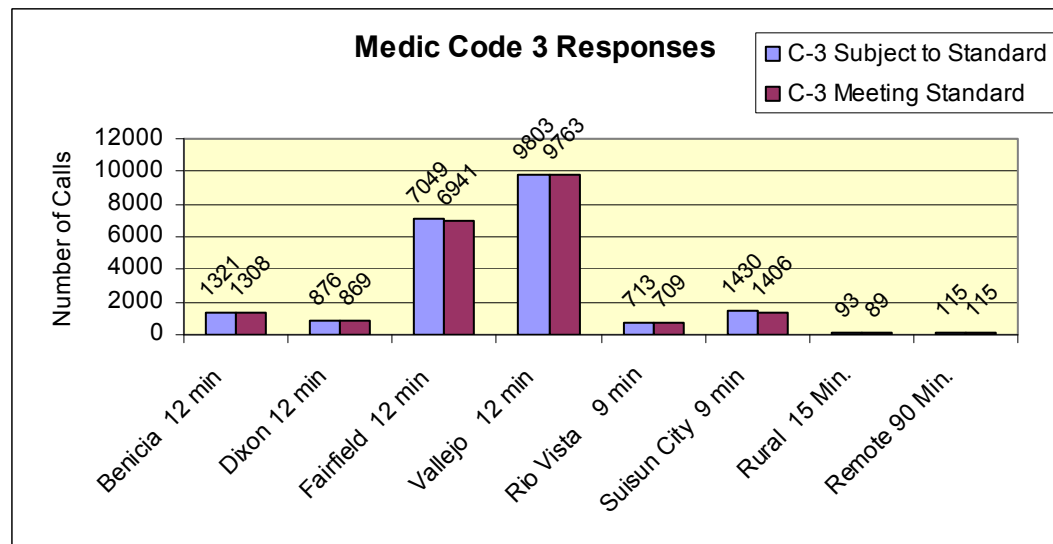
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B. MEDIC AMBULANCE

Total 9-1-1 responses by Medic Ambulance are shown below for each city in Solano County and includes the Rural and Remote categories.



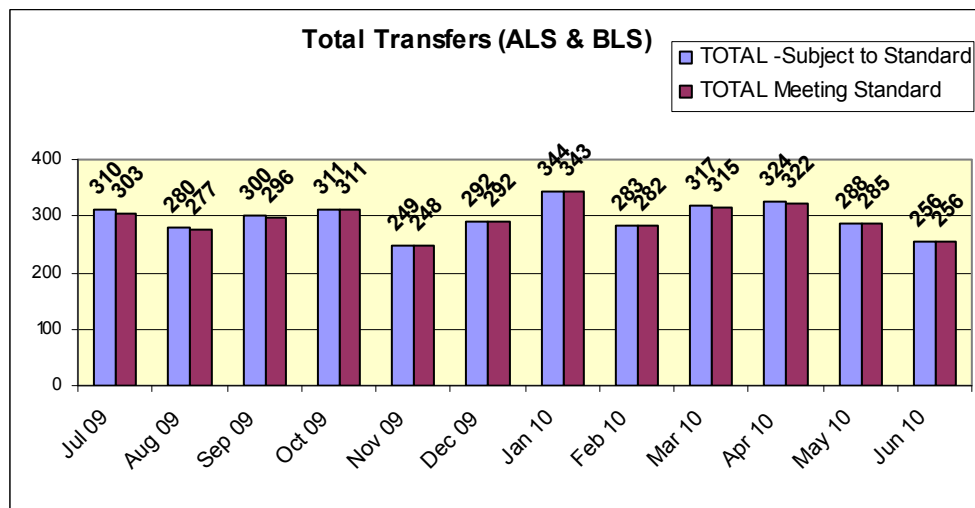
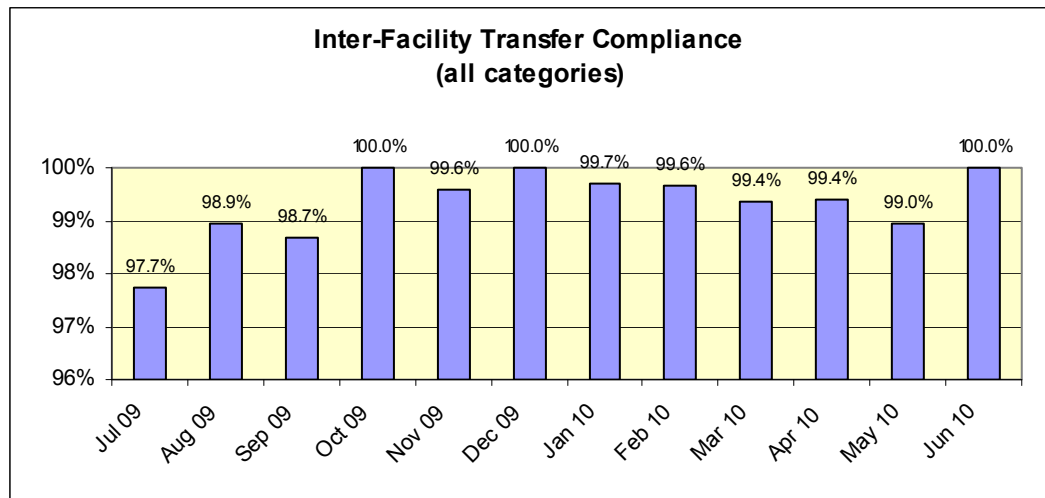
Medic's Code 3 responses are shown by city, with the appropriate response time noted for each city





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Medic Ambulance also provides interfacility transfer support for both advanced life support (ALS) calls as well as basic life support (BLS) calls. Overall response time percentage for all categories is an exceptional 99.32%. Categories 3 through 6 have varied response time requirements. Category 3 transfers are priority transfers and have a 60 minute response time for ALS calls while the BLS calls have a 120 minute response time. Category 4 ALS calls are urgent and have a 30 minute response time. Categories 5 and 6 are pre-scheduled and have a 1-4 hour response time and an “over 4-hour” response time respectively.



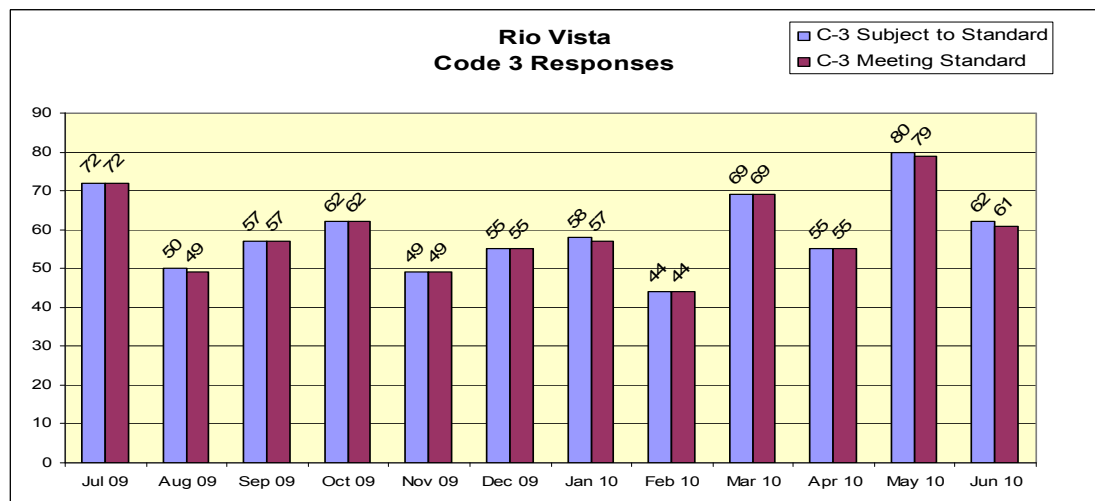
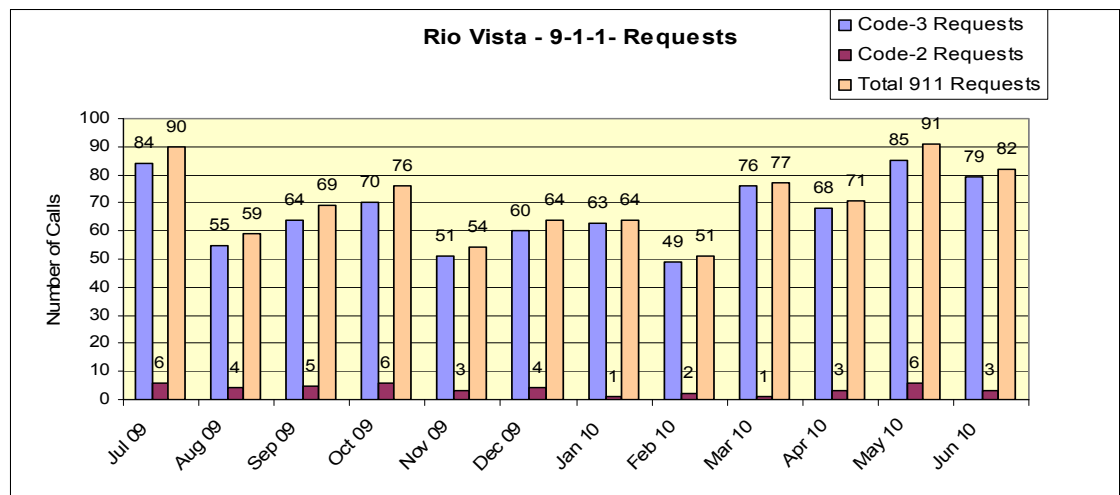


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C. RIO VISTA

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 effective January 2010 was 8,324 and is expected to triple in population within the next 15 years. 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 99.4% for this reporting period. This is based on a 9-minute response time since Rio Vista is not part of the Public Private Partnership.



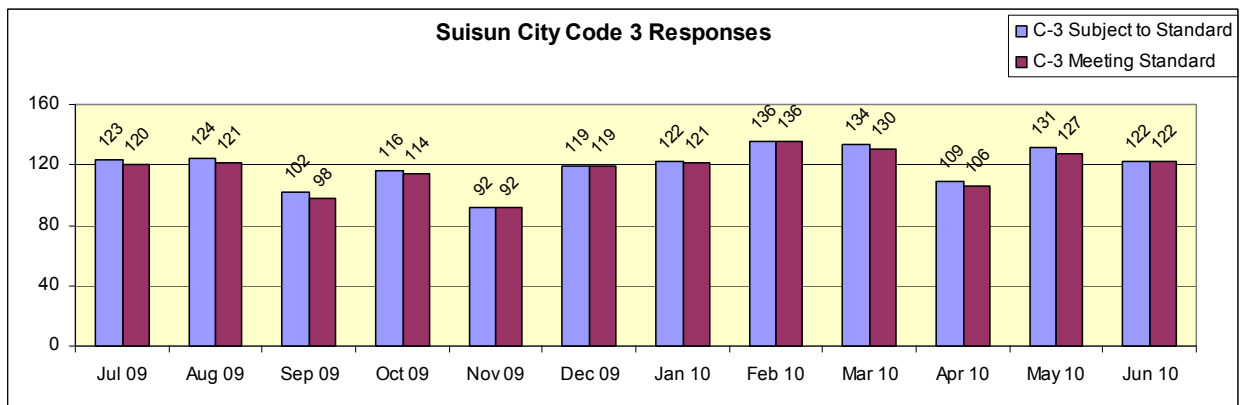
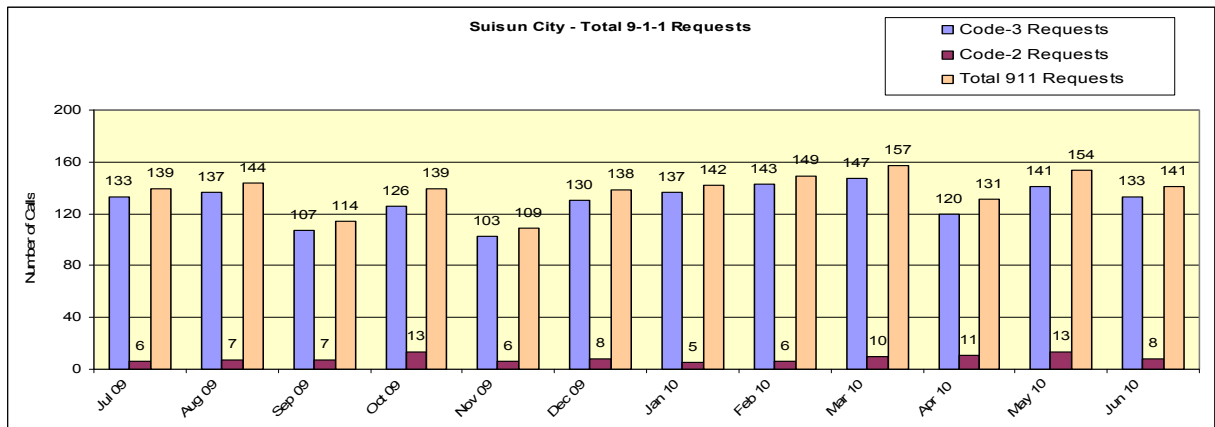


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D. SUISUN CITY

Suisun City was incorporated as a city in 1868 and is the fourth most populous city in Solano County. The city population of 28,962 (January 2010) 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 28,086 is situated on 14 square miles! Growth estimates for Suisun City put it at approximately 4% 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 98.3%. This is an example of excellent utilization of the System Status Management Plan.



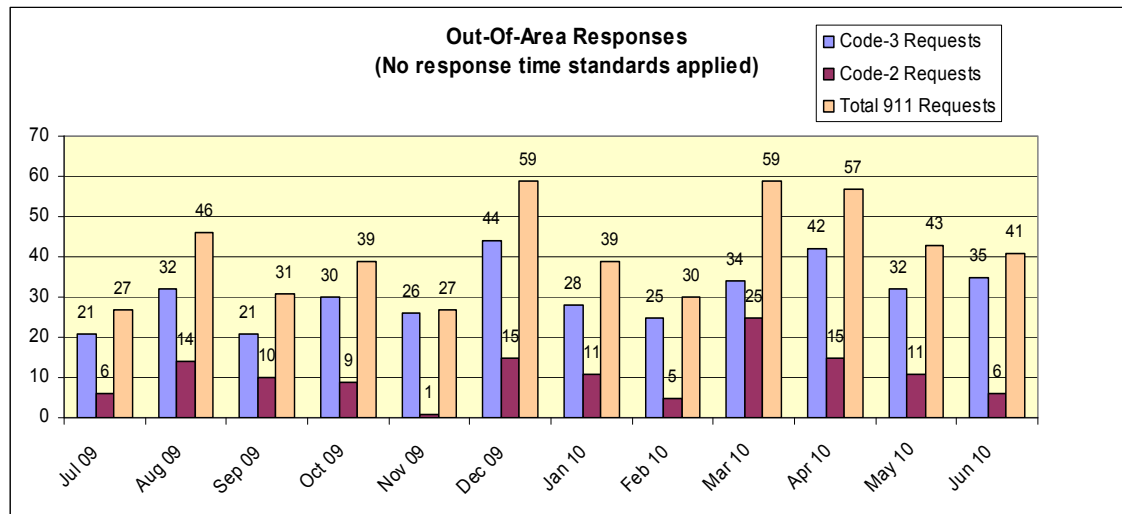


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E. UNINCORPORATED SOLANO

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.

The chart below indicates the number of Code 3 and Code 2 responses in the unincorporated areas.





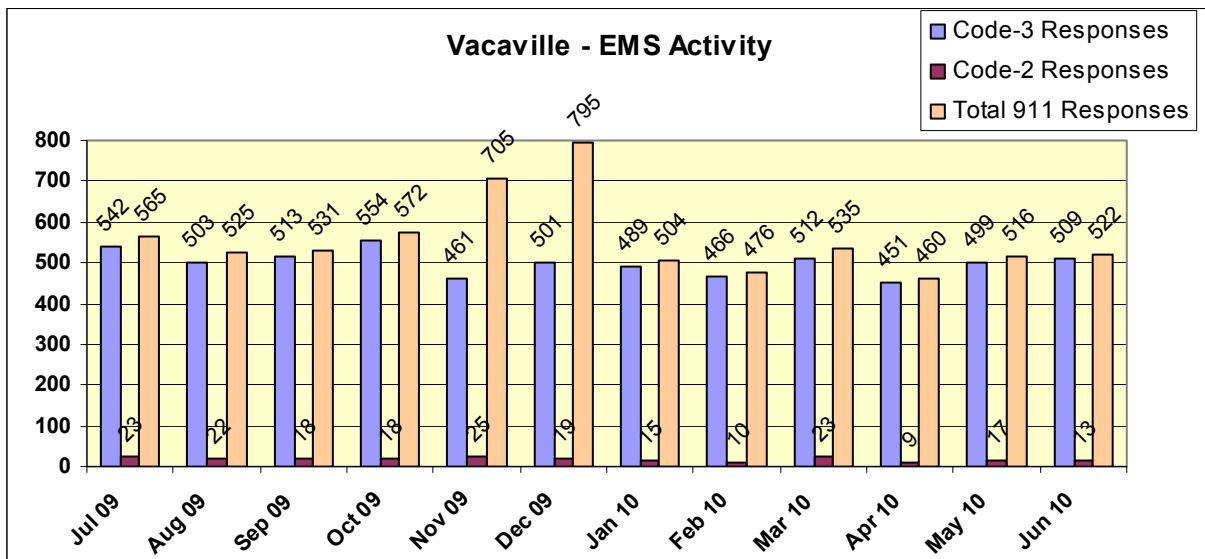
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F. VACAVILLE

The City of Vacaville was incorporated in 1892 and comprises just under 27 square miles. Current estimated population (effective January 2010) of Vacaville is 97,305, making Vacaville the 3rd most populous city in Solano County. Located along the I-80 corridor between Dixon and Fairfield, Vacaville hosts a large number of daily commuters which adds to the challenge of supporting the residents of Vacaville and the surrounding area.

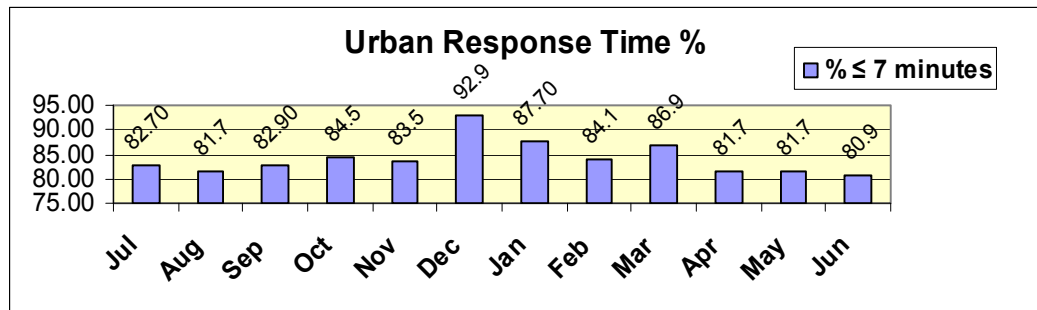
Vacaville Fire Department has provided uninterrupted service to the City of Vacaville and surrounding area since 1976. The City is recognized as a “201 entity” under Government Code 1797.201, and Zone “C” is considered “grandfathered” in accordance with Government Code 1797.224.

Vacaville Fire responded to a total of 6,212 calls during this reporting period, including 6000 Code 3 Calls and 212 Code 2 Calls. Response times in the City of Vacaville are measured at 7 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.

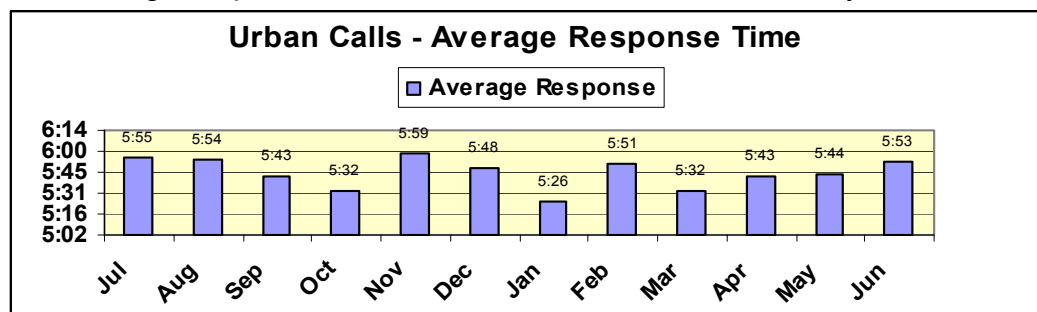




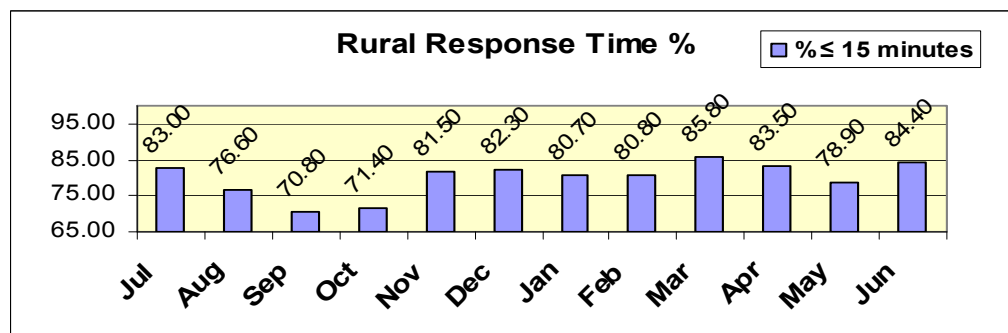
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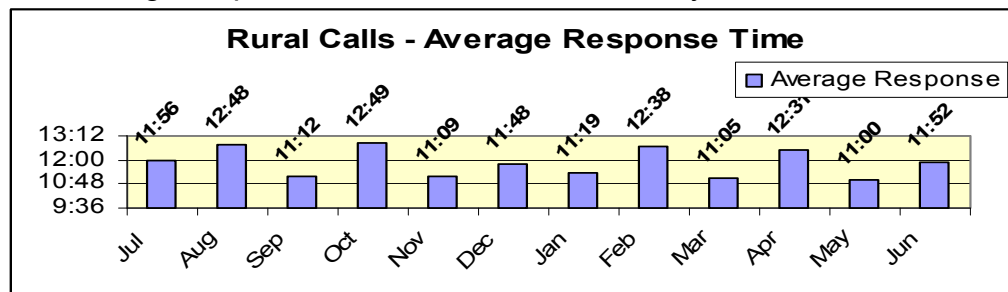
The average response time for urban calls was 5:45 for the year.



As noted on the previous page, response times are measured at 15 minutes for the standard. However, Vacaville does not differentiate between “rural” and “remote” calls – everything outside the city limits is considered a rural call.



The average response time for rural calls for the year was 11:52 minutes.

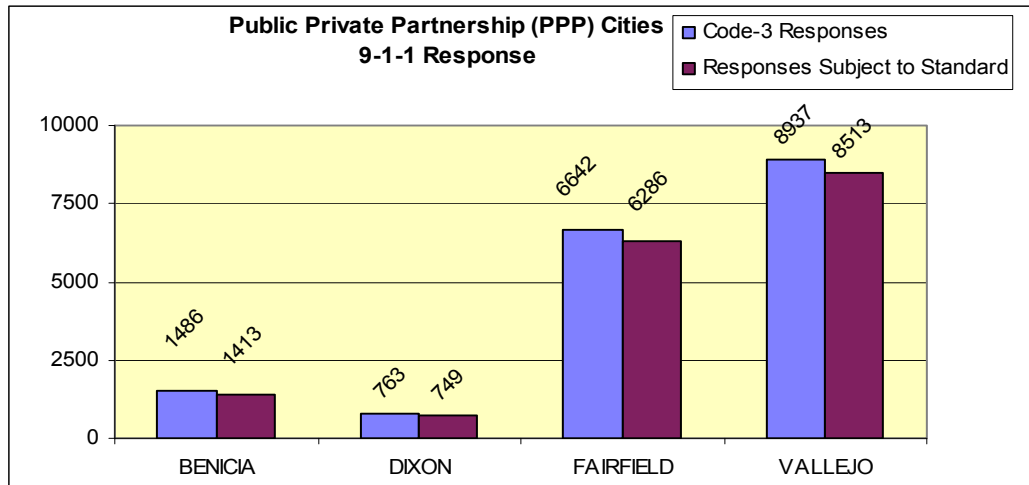




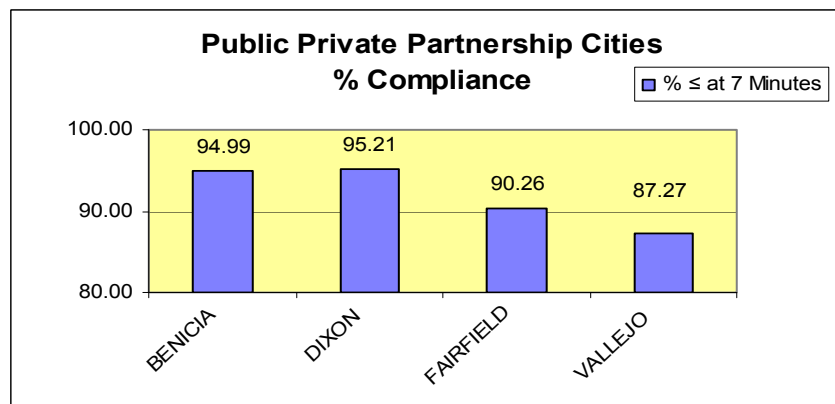
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G. PUBLIC PRIVATE PARTNERSHIP

The Public Private Partnership (PPP) Fire Departments figures are presented here, with city specific details to follow. These include Code 3 and Code 2 calls.



Code 3 responses are indicated below. Response time for these calls is required to be 7 minutes or less. The City of Vallejo had some major challenges this reporting period due to the economic situation. Several fire stations have been closed, with other stations picking up the workload. This has created a situation with numerous “late responses” due to distances to be travelled. Medic Ambulance has been able to provide the necessary medical response to ensure that the citizens of Vallejo receive the necessary emergency medical service.



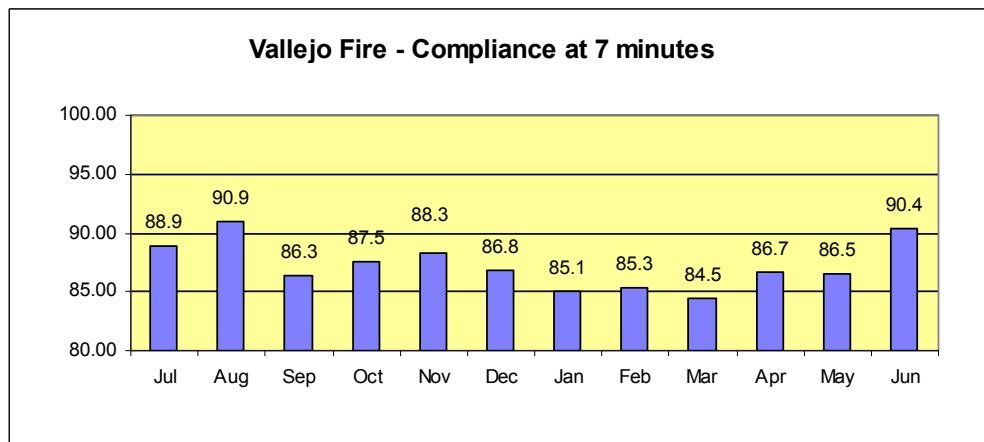
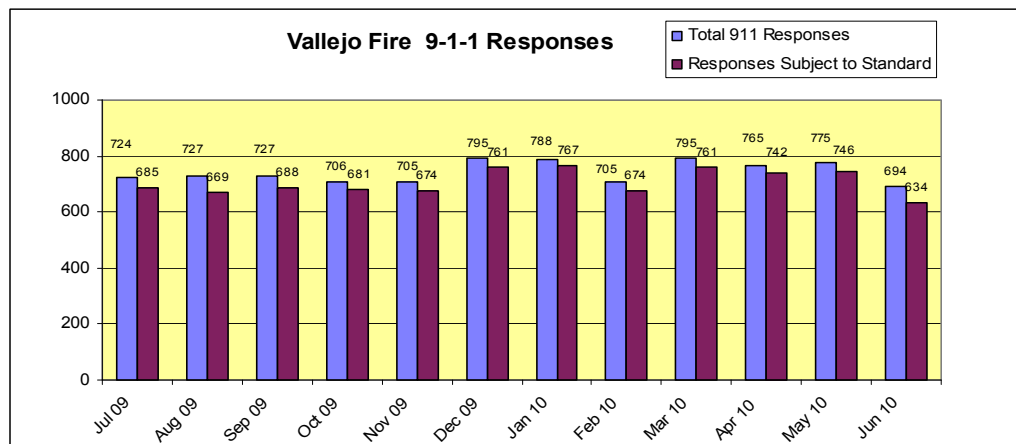


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1. Vallejo

Vallejo, with an estimated population of 121,435 (January 2010) 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 capitols in the 1850’s.

Vallejo Fire Department provides ALS first response to the residents of Vallejo. Beset by financial woes, Vallejo Fire Department has been forced to reduce services, which impact their response times. Medic Ambulance Service, providing ALS transport service for Vallejo, has been able to step in and provide coverage as needed. Total 9-1-1 calls for Vallejo Fire in this reporting period was 8,939, with a compliance rate of 87.3% at 7 minutes.



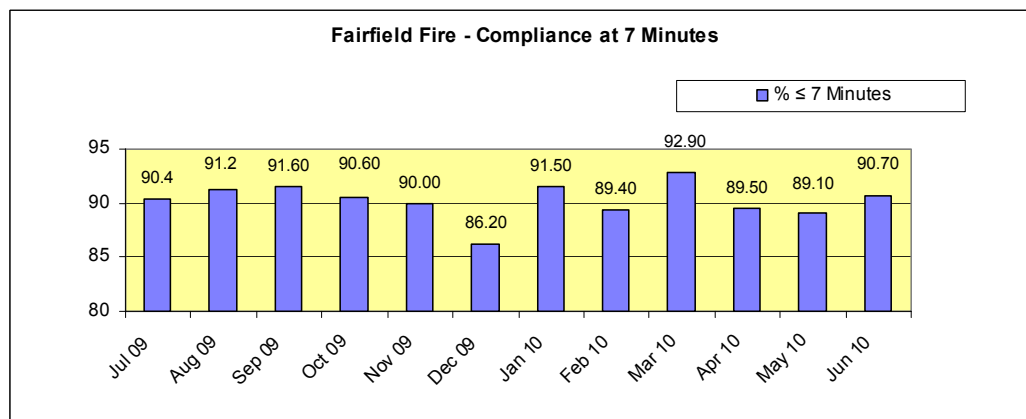
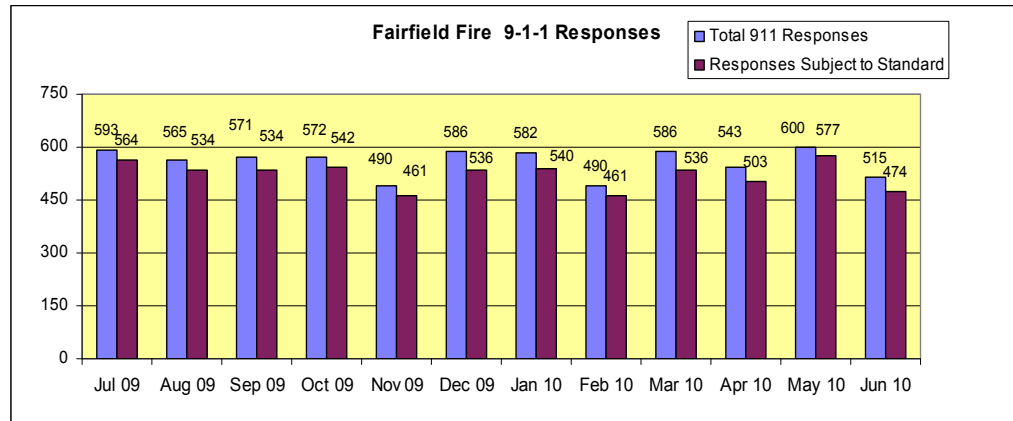


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2. Fairfield

Fairfield is the second most populous city in Solano County with an estimated population as of January 2010 of 105,955. As the County Seat for Solano County, Fairfield is a thriving community in the heart of Solano County with an estimated annual growth of 2%.

Fairfield Fire Department provides ALS First Response for the city and surrounding areas. They responded to a total of 6,681 “9-1-1” calls during this reporting period, with a 90.7% compliance rate at 7 minutes. Medic Ambulance provides ambulance transport, with an average response time compliance rate of 98% at 12 minutes.



Even with the outstanding response times, Fairfield remains a challenging area for both first responders and ambulance transport due to the traffic congestion as well as the I-80/I-680 traffic issues. Both Fairfield Fire Department and Medic Ambulance crews are managing these challenges in an exemplary manner.

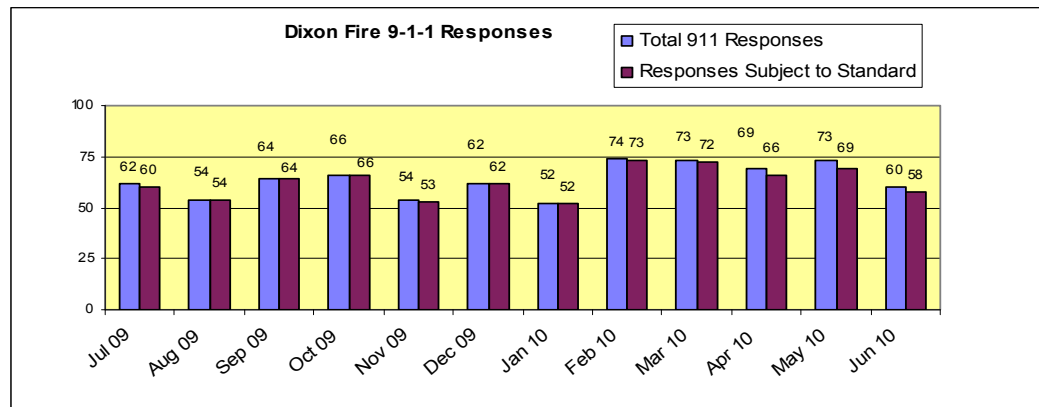


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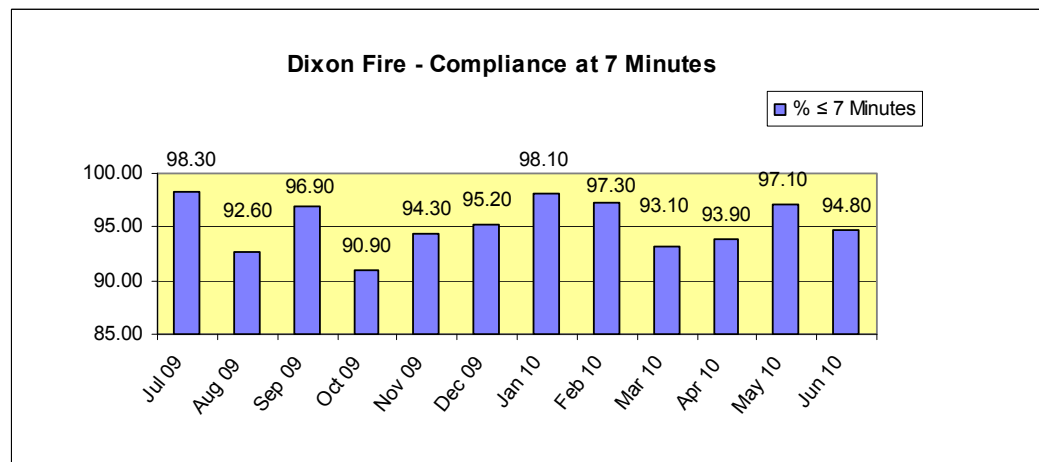
3. Dixon

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 17,605 in January 2010. Dixon anticipates a 3% per year growth rate, having slowed down from previous years at 7%.

Dixon Fire Department provides the ALS First Response for Dixon and the areas surrounding. They responded to a total of 763 “9-1-1” calls during this reporting period.



Their average compliance percentage (at 7 minutes) for the reporting period was 95.2%. Medic Ambulance provides ambulance transport, with an average response time of 99% at 12 minutes.





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4. Benicia

With an estimated population of 28,086 in January 2010, Benicia is the 5th 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. Response time percentage for Benicia Fire Department for the Jul 2009 – Jun 2010 reporting period was calculated at 94.9% at 7-minutes or less. Medic Ambulance’s response time percentage was equally impressive at 99% at 12 minutes.

