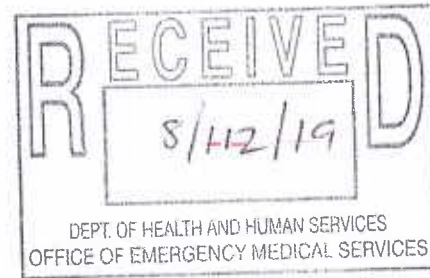


**EMERGENCY MEDICAL SERVICES AUTHORITY**

10901 GOLD CENTER DR., SUITE 400  
RANCHO CORDOVA, CA 95670  
(916) 322-4336 FAX (916) 324-2875



August 2, 2019

Dave Magnino  
EMS Chief  
Sacramento County EMS Agency  
9616 Micron Avenue, Suite 960  
Sacramento, CA 95827

Dear Mr. Magnino:

The EMS Authority (EMSA) has approved Sacramento EMS Agency's 2018 Trauma System Status Report. Sacramento EMS Agency's trauma system information provided in the report and subsequent correspondence is in compliance with California Code of Regulations, Title 22 Trauma Care Systems.

In accordance with the regulations, Section 100253, the local EMS agency shall submit to the EMS Authority an annual trauma system status report. Your next Trauma System Status Report will be due by July 9, 2020. If you have any questions, please contact Elizabeth Winward at (916) 431-3649 or [elizabeth.winward@emsa.ca.gov](mailto:elizabeth.winward@emsa.ca.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom McGinnis".

Tom McGinnis, EMT-P  
Chief, EMS Systems Division

**SACRAMENTO COUNTY**  
**2018 TRAUMA SYSTEM ANNUAL UPDATES**  
**July 10, 2019**

*In accordance with established guidelines, submitted is the annual update to the Sacramento County Trauma Care System Plan.*

**Trauma System Summary**

The Sacramento County Trauma Care System is a network of three in county and one out-of-county trauma centers. Sacramento County Emergency Medical Services (EMS) designates trauma centers to provide emergency medical care to any patient evaluated by prehospital emergency medical service personnel and requiring transportation to a trauma center.

The system undergoes review on a continuous basis. Reviews include quarterly meetings of the Trauma Review Committee (TRC). Trauma surgeons and other professionals within Sacramento County and nearby counties conduct the meetings.

**Changes in Trauma System**

Sacramento County Emergency Medical Services Agency (SCEMSA) amended the Diversion Policy in March 2018 to address conditions of emergency department (ED) exceeding capacity in patient volumes and hospital internal disasters. A provision of this policy ensures that no more than one trauma center may be on diversion at any point in time.

**Number and Designation Level of Trauma Centers**

No potential problems or pending changes in designation currently exist for any of the trauma centers listed below:

**In County:**

University of California Davis  
Medical Center  
2315 Stockton Boulevard  
Sacramento, CA 95817  
(916) 734-2011  
Level I Trauma Center (Adult and  
Pediatric)

Kaiser Permanente Medical Center - South  
Sacramento  
6600 Bruceville Road  
Sacramento, CA 95823  
(916) 688-2000  
Level II Trauma Center

Mercy San Juan Medical Center  
6501 Coyle Avenue  
Carmichael, CA 95608  
(916) 537-5000  
Level II Trauma Center

**Out-of-County:**  
Sutter Roseville Medical Center  
One Medical Plaza  
Roseville, CA 95661  
(916) 781-1200  
Level II Trauma Center

**Sacramento County  
2018 Trauma System Annual Updates**

**Trauma System Goals and Objectives**

The Trauma System is a network of dedicated professionals in the prehospital and hospital settings tasked with maintaining or expanding our region-wide Trauma Review Committee (TRC) forum through ongoing communication and teamwork. The focus is to enable detailed review and analysis of filtered, unexpected surgical outcomes and comprehensive data collaboration.

1. *Improve mechanisms to ensure continuing compliance with trauma care system standards through continuous quality improvement (CQI) activities and data collection from both designated trauma centers and non-trauma centers.*

The TRC reviews local trauma protocols and policies, making suggestions for ongoing trauma care improvement in the prehospital setting. The TRC provides unique educational opportunities to physicians and administrators throughout the region and has been in place for nearly two decades. Contributing participants include trauma managers and surgeons from Sacramento, El Dorado, San Joaquin, and Yolo counties, as well as regional forensic pathologists.

2. *Improve integration and coordination of trauma services within the emergency medical services system through continued data collection, analysis and trauma system policy development through advisory committees.*

Inland Counties Emergency Medical Agency (ICEMA) functions as the repository of the Sacramento County trauma and EMS data. Under this system, trauma centers and EMS providers submit data directly to ICEMA, which hosts the California Emergency Medical Services Information System (CEMSIS). This allows SCEMSA to review data as it is submitted, decreasing the time between submission, analysis, and review at advisory meetings.

SCEMSA works closely with the three Sacramento County trauma centers to identify and correct any software issues associated with the direct submission of data to CEMISIS. Staff works to develop reports incorporating the data fields requested from the TRC.

**Sacramento County  
2018 Trauma System Annual Updates**

Illustrated below in Figure 1 are incidents for EMS originating patients’ data year 2017 per hospital. Figure 2 represents incidents for EMS originating patients’ data year 2018 per hospital. As illustrated, the trauma hospitals are receiving the patients that meet Trauma Triage Criteria. In the majority of cases involving patients who were taken to non-trauma hospitals, paramedics identified and documented paramedic judgement and high speed motorized vehicle accidents.

Figure 1

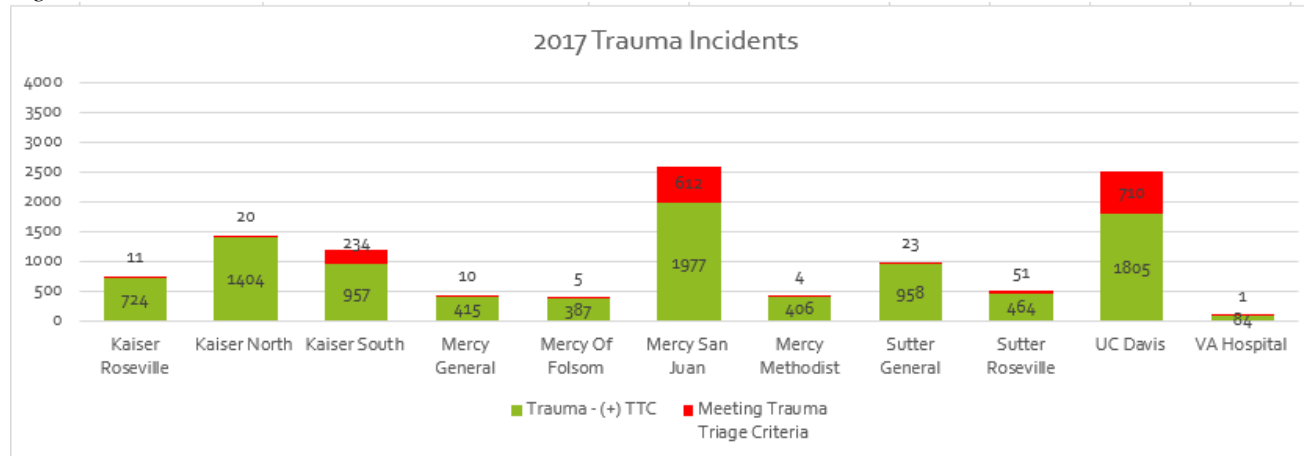
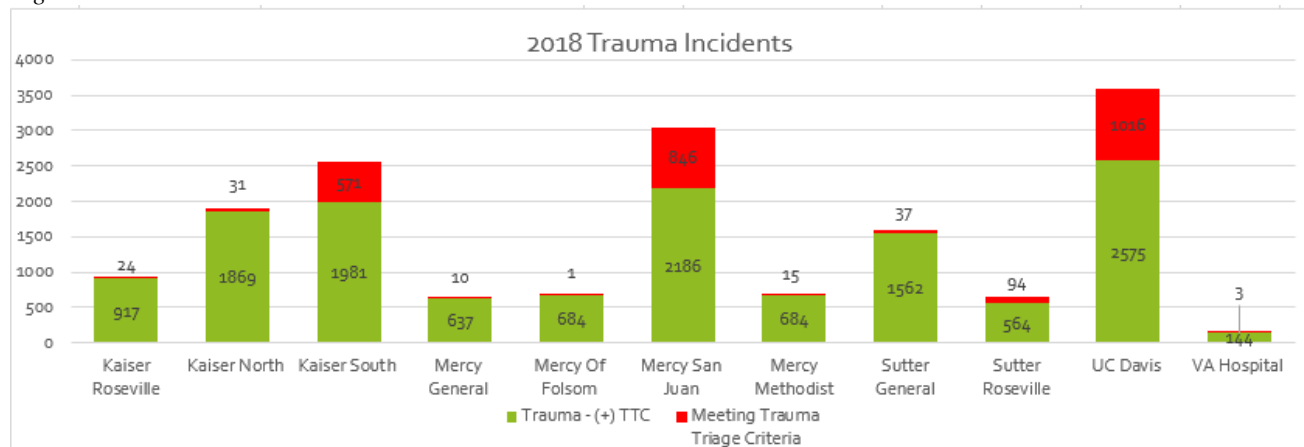


Figure 2



3. *Improve coordination of local trauma activities with trauma services in adjacent counties through involvement in CQI activities with out-of-county trauma centers and trauma systems.*

SCEMSA supports and participates in the North Regional Trauma Coordinating Committee (RTCC), resulting in improved communication among the North RTCC, out-of-county trauma centers, and the EMS Agency. The SCEMSA Administrator chairs the prehospital subcommittee at the request of North RTCC Chairman, Dr. David Shatz, and University of California (UC) Davis Medical Center.

## Sacramento County 2018 Trauma System Annual Updates

The EMS Specialist assigned to the CQI Program and data management attends the RTCC meetings. Participants provide insight into trauma data collection and submission. This aids progress between the SCEMSA and the trauma registrars at each trauma center. EMS Agency staff attends adjacent county and statewide trauma CQI meetings, including Yolo County's trauma CQI meetings and the annual CA Trauma Summit. In November 2018, the EMS Specialist attended the Trauma Registrar Course held in Anaheim, CA. The course explained the process of data abstraction and validation and examined the National Trauma Data Bank (NTDB) criteria. Understanding these criteria is crucial in data presentations. The EMS Specialist obtained her Trauma Registrar certification.

4. *Improve accountability and objective evaluation of the trauma care system through data collection and analysis, utilizing a trauma registry and an audit and review process.*

In addition to ongoing local and regional trauma data review and analysis, each Sacramento County designated trauma center data registry undergoes inspection every three (3) years. An independent, nationally recognized team of trauma surgeon experts from American College of Surgeons, Committee on Trauma (ACSCOT) conducts the inspections. Members of the inspection team review a sampling of patient charts. Data records undergo review for appropriateness and inform improvement to practice when indicated.

Inspections by American College of Surgeons for calendar year 2018 included the following:

- UC Davis Medical Center underwent inspection on April 4-5, 2018 and received reverification as a Level I Trauma Center and Level I Pediatric Trauma Center.
- Mercy San Juan Medical Center underwent inspection on September 13-14, 2018 and received reverification as a Level II Trauma Center.

Both centers received verification for a period of three (3) years.

### Changes to Implementation Schedule

No changes in the current implementation schedule.

### System Performance Improvement

1. *Objectives, goals and RTCC meetings (January, May and September) enable improvement achievements. The trauma system review process is evolving as a tool to provide system wide improvement by:*

Policy updates:

8044- **Selective Spinal Immobilization** modified to reflect the new requirements and procedures for spinal restriction for patients with traumatic injuries

8065- **Hemorrhage in Trauma-** SCEMSA submitted a request to EMSA for the optional use of Tranexamic Acid in Non-compressible (Torso) hemorrhage.

**Sacramento County  
2018 Trauma System Annual Updates**

Data submission and presentation: EMS Specialist oversees the CQI Program and conducts data collection and presentation. The specialist works with trauma hospitals and surgeons to identify relevant indicators to improve the trauma system. Indicators include:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Mechanism of injury</li> <li>• Mode of Arrival</li> <li>• Trauma type</li> <li>• Patient’s Age</li> </ul> | <ul style="list-style-type: none"> <li>• Injury Severity Score Range</li> <li>• Emergency Department Disposition</li> <li>• Hospital Discharge Disposition</li> </ul> |
|--|---|

Prehospital Documentation

SCEMSA worked closely with the EMS providers to improve documentation practices and ensure EMS completes prehospital Trauma Alerts on patients with positive Trauma Triage Criteria. There was marked improvement in 2018 over 2017, as shown below:

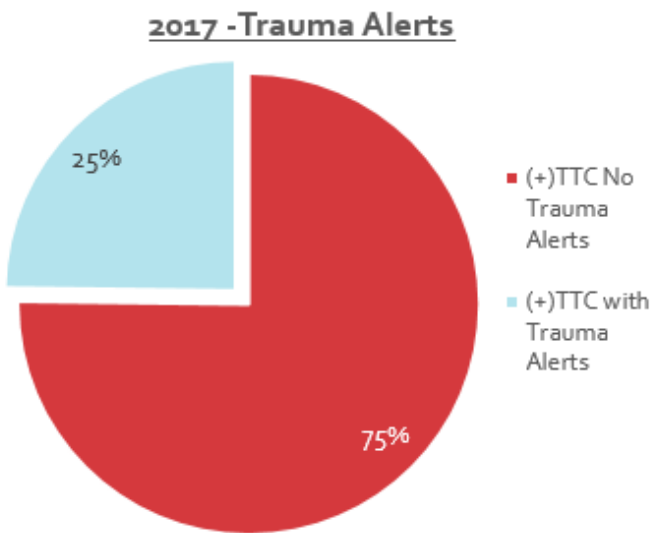


Figure 3

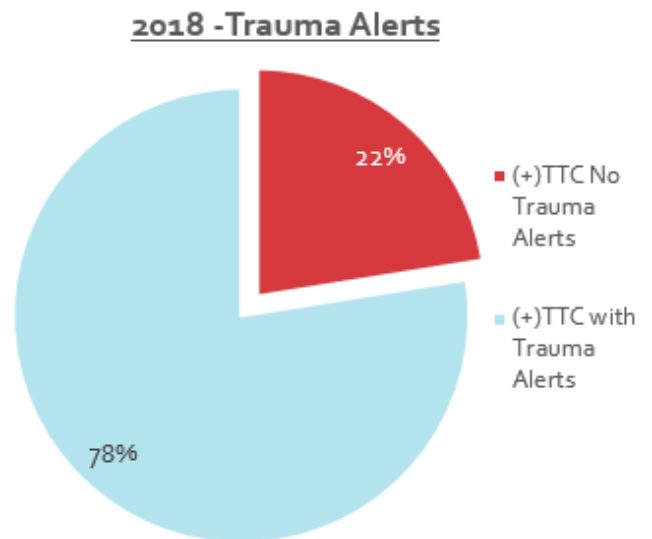


Figure 4

In 2017, prehospital providers documented 1,681 EMS incidents as positive trauma triage criteria. Of these, only 417 received a Trauma Alert notification. In 2018, prehospital providers documented 2,648 incidents as trauma triage criteria. Of these, 2,053 incidents received a Trauma Alert notification, representing a 393 percent increase in pre-alert notifications for trauma.

## Sacramento County 2018 Trauma System Annual Updates

TRC Recommendations: The TRC made a request to limit the number of trauma centers on diversion to one at any given time. Changes to the policy included:

- Hospitals with adult trauma, pediatric trauma, and regionally exclusive services (e.g. burn unit) may still receive patients requiring such services if deemed safe by the authorized senior administrator and ED Medical Director in consultation with the Medical Health Operational Area Coordinator (MHOAC).
- No more than one trauma facility is allowed to be on diversion at any point.

Title 22 requirement for periodic performance evaluation of the Trauma System: The SCEMSA Administrator attended the 2018 ACSCOT pre-visit evening dinners and site visits to answer questions relating to the prehospital part of the trauma system.

2. *Consider adding outcome measures so that some benchmarking can be done not only within the county and its Trauma Centers but also through your multicounty PI process.*

San Joaquin General Hospital's trauma program has a continuous invitation to attend quarterly TRC and North RTCC meetings.

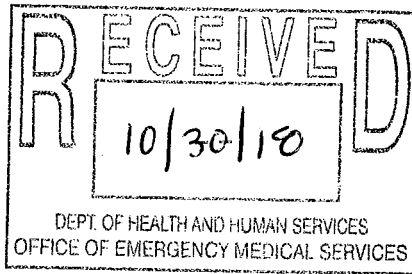
Trauma System participants regularly review outcome data to improve system performance. Data elements include:

- Prehospital scene times
- Field intubation success rates and complications
- Geriatric trauma outcomes related to head injury and falls
- Wait time for inpatient rehabilitation beds for traumatic brain injury and spinal cord injury patients
- Secondary transfers of pediatric traumas
- Under-triage for trauma patients

SCEMSA participates in the State's Re-Triage study to assist in data collection. The focus for this study is to improve time to definitive care in the trauma center. SCEMSA will continue its participation.

**EMERGENCY MEDICAL SERVICES AUTHORITY**

10901 GOLD CENTER DR., SUITE 400  
 RANCHO CORDOVA, CA 95670  
 (916) 322-4336 FAX (916) 322-1441



October 12, 2018

David Magnino  
 EMS Administrator  
 Sacramento County EMS Agency  
 9616 Micron Ave., Suite 960  
 Sacramento, CA, 95827

Dear Mr. Magnino:

The EMS Authority (EMSA) has approved Sacramento County EMS Agency's 2017 Trauma System Status Report. Thank you for providing the report in compliance with EMSA's Annual Trauma System Status Report Guidelines. All Sacramento County EMS Agency's trauma system information provided in the report and subsequent correspondence is in compliance with California Code of Regulations, Title 22 Trauma Care Systems.

In accordance with the regulations, Section 100253, the local EMS agency shall submit to the EMS Authority an annual trauma system status report. Upon review of the report, the EMS Authority has the following required actions/recommendations/comments:

**Trauma System Summary**

Accepted as Written  Required Action  Recommendation  Comment

**Changes in Trauma System**

Accepted as Written  Required Action  Recommendation  Comment

**Number and Designation Level of Trauma Centers**

Accepted as Written  Required Action  Recommendation  Comment

**Trauma System Goals and Objectives**

Accepted as Written  Required Action  Recommendation  Comment

**Changes to Implementation Schedule**

Accepted as Written  Required Action  Recommendation  Comment



David Magnino  
October 12, 2018  
Page 2

**System Performance Improvement**

Accepted as Written  Required Action  Recommendation  Comment

Thank you for providing the bar charts to illustrate the slight increase in incidents between 2016 and 2017.

The new North RTCC Chair is Frank Kennedy, MD from San Joaquin General Hospital. Dr. Kennedy will facilitate and attend all North RTCC meetings, so this will be a great opportunity for you to reach out to him with regards to data collection on trauma patient transfers between Sacramento and San Joaquin.

**Progress on Addressing EMS Authority Trauma System Plan/Status Report Action Items**

Accepted as Written  Required Action  Recommendation  Comment

Thank you again for submitting a report on Sacramento County EMS Agency's Trauma System. Your next Trauma System Status Report will be due on or by September 20, 2019 (see attached format). Please provide us with an electronic copy. If you have any questions, please contact Elizabeth Winward at (916) 431-3649 or [elizabeth.winward@emsa.ca.gov](mailto:elizabeth.winward@emsa.ca.gov)

Sincerely,



Tom McGinnis, EMT-P  
Chief, EMS Systems Division

Attachment



# **Emergency Medical Services Authority**

## **Trauma System Plan Revision & Annual Trauma System Status Report Guidelines**

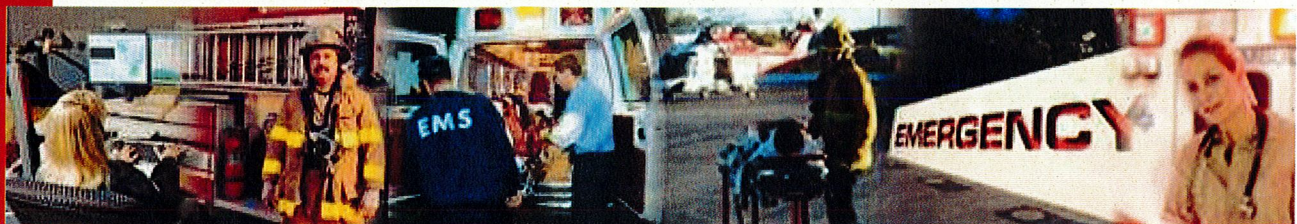
**Edmund G. Brown Jr.**  
Governor  
State of California

**Diana S. Dooley**  
Secretary  
Health and Human Services Agency

**Howard Backer, MD, MPH, FACEP**  
Director  
Emergency Medical Services Authority

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Updated, June 2012



**This document is intended to provide Emergency Medical Services (EMS) Agencies with instructions and minimum guidelines for preparing Trauma System Plan Revisions and Annual Trauma System Status Reports.**

**TRAUMA SYSTEM PLAN**

California statute, Health and Safety Code Section 1798.162, allows local emergency medical services (EMS) agencies to implement a trauma system if the system meets the minimum standards set forth in the regulations. For preparation of the Trauma System Plan, refer to EMSA #151 - Trauma Plan Development Guidelines, January 2000. The guideline is available on the EMS Authority website: [www.emsa.ca.gov/emsddivision/trauma\\_plan\\_cover.asp](http://www.emsa.ca.gov/emsddivision/trauma_plan_cover.asp).

**TRAUMA SYSTEM PLAN SIGNIFICANT CHANGES**

If significant changes to the trauma system occur after the Trauma System Plan has been approved, the Trauma System Plan must be revised and submitted to the EMS Authority for review and approval prior to the implementation of the changes. The California Code of Regulations outlines the requirements for significant changes to a Trauma System Plan.

- ✚ **Section 100253 (i):** After approval of a trauma system plan, the local EMS agency shall submit to the EMS Authority for approval any significant changes to that trauma system plan prior to the implementation of the changes. In those instances where a delay in approval would adversely impact the current level of trauma care, the local EMS agency may institute the changes and then submit the changes to the EMS Authority for approval within thirty (30) days of their implementation.

Significant changes would include designation or de-designation of trauma care facilities, changes in use of outside trauma care systems, change of trauma care system design, or major policy changes. Two copies of the revised Trauma System Plan should be submitted to the EMS Authority with a cover letter that clearly outlines the major changes.

Generally, significant changes will require the entire Trauma System Plan to be revised. However, specific section changes will be accepted only if they clearly fit within the old plan (i.e., page numbering remains the same, new sections are complete). A letter clearly outlining the changes must accompany two copies of

the section changes. Please contact the EMS Authority Trauma Coordinator to determine if section changes would be appropriate at (916) 322-4336.

The EMS Authority should be notified immediately upon **any** changes to the number of trauma centers. If a trauma center is added, a letter should be sent to the EMS Authority that includes the name of the trauma center, the street address, whether the trauma center is a public or private facility, the phone number for the hospital and the trauma office, the trauma center designation level, and the date it was designated.

The local EMS Agency should immediately contact the EMS Authority to alert them as to any possible de-designation or reduction in designation level of a trauma center and update the Authority as additional information becomes available. If the trauma center is ultimately de-designated or the designation level is reduced, a letter should be sent to the EMS Authority indicating the name, address and the level of the trauma center, and the date of de-designation or designation level reduction. The trauma plan should also be updated to indicate the addition or deletion of the trauma center and show how trauma patients will be cared for.

### **ANNUAL TRAUMA SYSTEM PLAN STATUS REPORT**

Local EMS Agencies are required to include a trauma system status report as part of the annual EMS Plan update according to the California Code of Regulations.

- ✚ **Section 100253 (j):** The local EMS agency shall submit a trauma system status report as part of its annual EMS Plan update. The report shall address, at a minimum, the status of trauma plan goals and objectives.

The report is to be a separate chapter of the EMS Plan and is due one year from the approval of the most current EMS Plan. The report should include a summary of the trauma system, a description of any changes to the trauma system, the number and designation level of the trauma centers, an update of the status of the Trauma System Plan's goals and objectives and any modifications, progress toward or changes to the implementation schedule, and progress toward addressing any comments made in the EMS Authority's review of the Trauma System Plan. Any changes and/or additions to the Trauma System Plan should also be enclosed with the status report and clearly marked for incorporation into the trauma plan. A general format for the trauma system status report follows.

## EMS Plan: TRAUMA SYSTEM STATUS REPORT

**Trauma System Summary** – Brief summary of trauma care system.

**Changes in Trauma System** – Describe any changes in the trauma care system and/or progress toward implementation.

**Number and Designation Level of Trauma Centers** – List the designated trauma centers and indicate any potential problems or possible changes in designation.

**Trauma System Goals and Objectives** – Provide update on progress toward meeting goals and objectives listed in the Trauma System Plan. Modify goals and objectives as appropriate.

**Changes to Implementation Schedule** – Indicate completion of activities and modify schedule as appropriate.

**System Performance Improvement** – Provide a description of trauma system review processes accomplished during the reporting year.

**Progress on Addressing EMS Authority Trauma system Plan Components** – Trauma System Plan approval letters may include issues to be addressed or commented upon by the local EMS Agency. The status report should include an update of progress toward completion of these items along with any required changes accomplished as required in the approval letter. Changes should be accompanied by a cover letter which clearly indicates where the changes should be added to the Trauma System Plan.

**Other Issues** – Local EMS Agencies may include any other relevant issues as deemed appropriate.