To: **Bay Area UASI Approval Authority**
Bay Area OES Managers

From: **Catherine Spaulding, Assistant General Manager**
Srijesh Thapa, Regional Project Manager

Date: **May 6, 2015**

Re: **WebEOC Assessment Project**

This memo explains the scope and purpose of the WebEOC Assessment Project, followed by sections for key findings, recommendations, next steps, methodology, and acronyms and terms. The Management Team would like to thank the stakeholders who provided information and assistance for this analysis. Please contact Srijesh Thapa, Bay Area UASI Regional Project Manager, for questions, comments, or additional information: (415) 353-5231, Srijesh.Thapa@sfgov.org.

I. *Scope and Purpose:*

WebEOC is a web-based tool that facilitates information sharing, mission tasking, resource ordering and tracking between Emergency Operations Centers (EOCs) and other institutions managing planned and unplanned events. The goal of the WebEOC Assessment Project is to assess the status, challenges, and best practices for WebEOC implementation in the Bay Area, and develop recommendations to improve information sharing and operational coordination. Bay Area UASI stakeholders, including members of the Approval Authority, identified this as a critical need for the Bay Area and requested the Management Team to conduct the analysis.

II. *Key Findings:*

1. *There are multiple versions of "WebEOC"*

WebEOC is utilized extensively in the Bay Area. Six Operational Areas (OAs) and all core cities in the Bay Area have purchased/use a local instance of WebEOC (City and County of San Francisco, San Mateo County, Santa Clara County, Contra Costa County, Marin County, Monterey County, City of Oakland, and City of San Jose). Two additional OAs are currently procuring WebEOC licenses (Napa County and Santa Cruz County). Out of a total of 58 OAs in the State, 22 OAs and city jurisdictions use WebEOC, and so the Bay Area represents a significant proportion of WebEOC users in the State.

The State version of WebEOC is called CalEOC. CalEOC is also web-based, and it facilitates information sharing, mission tasking, resource ordering and tracking between OAs and the State. CalEOC replaced Cal OES's Response Information Management System (RIMS). Some stakeholders appear to not know about or understand the availability and functionality of CalEOC – specifically, the fact that the State provides all OAs free access to CalEOC and that OAs are not required to own local instances of WebEOC to communicate with the State/CalEOC. However, following Standardized Emergency Management (SEMS) protocols, the State does not provide city jurisdictions with CalEOC accounts; OAs are expected to report on behalf of their cities.

The Federal Emergency Management Agency (FEMA) also has its own version of WebEOC. Non-Federal entities, including the State, cannot interconnect with FEMA's WebEOC due to Federal data security restrictions. FEMA can provide read-only access to their WebEOC user interface screens (boards) to non-Federal entities. FEMA's WebEOC configuration is by preference a basic off-the-shelf version. FEMA has a staff of four full-time programmers and eight WebEOC board builders that are deployed to federally declared disaster areas to setup up ad-hoc WebEOC configurations and boards customized to meet their operational needs.

2.   WebEOC and CalEOC interoperability functionality is lacking but can be resolved

Bay Area jurisdictions that have WebEOC currently cannot share information with each other or with CalEOC. This presents a significant handicap given the importance of regional integration and cooperation, and creates a frustrating redundancy of information input and management during EOC activations. However, the region has organized a user group of WebEOC administrators that are working on fixing these problems. The State has also indicated support of OAs linking local instances of WebEOC and sharing data, and has participated in a recent effort to establish a statewide WebEOC user group as well.

Local instances of WebEOC can be linked to facilitate interoperability between WebEOCs in the Bay Area. There are a variety of technical solutions to enable Bay Area jurisdictions that have WebOEC to share information with each other: (1) via CalEOC's fusion server; (2) via an independent jurisdiction-owned regional fusion server; and (3) via payments to the WebEOC vendor (Intermedix). The State has approved use of its CalEOC fusion server free of cost, however, more conversations are required to flesh out implementation steps and any restrictions such as limiting use for city jurisdictions. The cost to establish, host and maintain an independent jurisdiction-owned regional fusion server is insignificant, requiring minimal staff time, and the bandwidth requirements are relatively light. Marin County OES has offered to be a host. The vendor solution includes an off-the-shelf fee-based hosted fusion server option that costs $100K for upfront implementation and $29K per year for maintenance. Fees are priced for OA WebEOC instances only.

Bay Area OAs with local instances of WebEOC can automate data sharing with CalEOC by fall of 2015. There has been a lack of clarity and effective communication on the process and procedure for enabling automated data sharing between local instances of WebEOC and CalEOC. However, this problem can be solved with collaborative effort between OAs and the

State, and ultimately through a moderate level of effort, including the need for some programming assistance. At this time, the State is in the process of updating CalEOC, therefore, it is best to implement the desired automated data sharing functionalities after the completion of the CalEOC updates. The State currently anticipates completing the CalEOC updates by the end of the summer.

3.   It is critical to integrate WebEOC and Cal COP

WebEOC and Cal COP should be linked to improve information sharing and situational awareness.   Cal COP is a web-based, strategic situational awareness tool with threat analytics and additional data feeds, enabling a common operating picture for the entire state of California. All OAs and core cities have access to Cal COP for free and end-user training is available and has been provided. Two-way integration between WebEOC and Cal COP would enable data sharing between WebEOC's 'Significant Events' board and Cal COP's 'Feed Monitor' and 'Watchboard." The Cities of Houston and New Orleans have already integrated WebEOC with their local iteration of the Cal COP tool.

III.   *Recommendations:*

Bay Area UASI Regional Project Manager Srijesh Thapa will be available as needed and requested by Bay Area jurisdictions to facilitate meetings and provide other support to accomplish the following tasks:

1.   **All Bay Area OAs should ensure they have active CalEOC accounts.** The State uses CalEOC to communicate with OAs during significant events impacting OAs. Setting up an account is free and relatively low effort. For those OAs that already have WebEOC, CalEOC provides a redundant system to communicate if and when local instances of WebEOC fail or have connectivity issues with CalEOC during EOC activations. OAs should request the State to create user accounts for at least two or more OA EOC operations staff and implement CalEOC user training.

2.   **Local instances of WebEOC in the Bay Area should link via CalEOCs fusion server to enhance regional data sharing.** The CalEOC fusion server option is cost-effective and relatively less complicated. If this solution fails to deliver, the region should explore the local fusion server model via Marin County. Next steps should be confirmed and discussed amongst the region's WebEOC administrators.   In addition, WebEOC administrators and EOC operations managers in the Bay Area will need to collaborate and collectively identify and agree on which datasets to share regionally, and also develop user interface screens (boards) to enable shared viewing of regional data.

3.   **Enable automated data sharing between CalEOC and Bay Area OA WebEOC instances.** Such efforts should begin once the State completes its update of CalEOC at the end of the summer. For OAs that have not customized boards in their local instances of WebEOC, the data sharing solution can be as easy as subscribing to some pre-set

CalEOC boards. Information sharing can also be facilitated by OAs allowing CalEOC to subscribe to some of their WebEOC boards as well. However, in addition to the option of subscribing to pre-set CalEOC boards, OA instances of WebEOC with customized boards will require connectivity to CalEOC via configuration and data mapping via the State's fusion server. This can be accomplished with some programming assistance, which can be obtained from within jurisdiction IT departments and/or requested from the State. The WebEOC system vendor can also be hired to assist if needed.

4. **Prioritize CalEOC and WebEOC administrator and end-user training.** WebEOC administrator and end-user training is being provided by jurisdictions that use WebEOC, although these vary in extensiveness. The WebEOC vendor (Intermedix) usually provides WebEOC administrator training. WebEOC and CalEOC training program best practices and templates should be shared amongst jurisdictions. The region should explore whether standardized region-wide training programs would be useful. Such programs could potentially be delivered via the Bay Area UASI Regional Training and Exercise Program.

5. **Pilot connectivity between local instances of WebEOC and Cal COP.** It is estimated that this would initially cost approximately $37,000 for three OAs and then approximately $10,000 per each subsequent OA. This will take a matter of weeks to accomplish, once specified within Haystax's existing scope of work (Haystax is the Cal COP vendor). Ideally, such a pilot would include several Bay Area jurisdictions and be in place in time for the region to benefit during Super Bowl 50. The Bay Area UASI Management Team is currently seeking grant funds volunteered from jurisdictions which could be applied toward covering the costs of such a pilot. The connectivity and interoperability between WebEOC, CalEOC and Cal COP should also be tested during Urban Shield/Yellow Command.

IV. *Next Steps:*

The Bay Area UASI Management Team will work on implementing the above recommendations through the summer months and will report back to the Approval Authority on progress in the fall.

V. *Methodology:*

Over the course of three months in early 2015, the Bay Area UASI Regional Project Manager consulted local OA WebEOC administrators to determine the current status of WebEOC implementation, gaps, needs, and challenges in the Bay Area. The Regional Project Manager also consulted the Cal OES lead for CalEOC to determine the current implementation status of CalEOC, system interface and configuration, CalEOC access options for OAs, automated data sharing mechanisms between local instances of WebEOC and CalEOC, and also ascertained Cal OES's plans to update CalEOC and the associated timeframes to do so. Consultations with the OA WebEOC administrators and the CalEOC lead assisted in collectively determining

recommended solutions for enabling data sharing between local instances of WebEOC and also between local instances of WebEOC and CalEOC.

Additionally, the UASI Regional Project Manager also consulted the Cal COP vendor Haystax's team to determine data sharing options and specifics between Cal COP and WebEOC, and the estimated costs and anticipated implementation timeframes.

The UASI Regional Project Manager will continue to consult and work collaboratively with the OA WebEOC administrators, the CalEOC lead, and the Cal COP vendor Haystax's team as part of this project effort.

VI.   *Acronyms and Terms:*

Boards	User interface screens with data fields for data entry or viewing
Cal COP	California Common Operating Picture for threat awareness. Web-based tool that facilitates and supports information sharing and situational awareness. Formerly known as Digital Sandbox 7 Owned by the vendor Haystax
CalEOC	State version of WebEOC that facilitates information sharing, mission tasking, resource ordering and tracking between Operational Areas and the State
Cal OES	California Governor's Office of Emergency Services
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
IT	Information Technology
OA	Operational Area
RIMS	Response Information Management System. Software tool previously used by Cal OES for resource ordering and mission tasking. Replaced by CalEOC. Formerly owned by the vendor E-Team
SEMS	Standardized Emergency Management System
UASI	Urban Areas Security Initiative
WebEOC	Web-based tool that facilitates and supports information sharing and situational awareness. Owned by the vendor Intermedix