

Emergency Public Information - Should I Stay or Should I Go?



GRAND JURY 2018-2019

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SUMMARY

Recent devastating fires in California highlight a need for fast and accurate emergency public information. Using the Canyon 2 and Holy fires as a backdrop, the 2018-2019 Orange County Grand Jury evaluated how emergency information is gathered, coordinated, and disseminated to the public when multiple jurisdictions in Orange County are involved.

The Orange County Grand Jury learned that various Orange County jurisdictions generally follow established state and national best practices in their management of emergencies. However, for some, communicating vital emergency information to the public when interagency coordination is essential has not been a priority. It also found that, with the exception of one jurisdiction, there are no written standardized protocols among studied jurisdictions for issuing alerts and warnings. Further, following such emergencies, the jurisdictions the Orange County Grand Jury studied do not actively seek feedback from residents that could help to shape public policy.

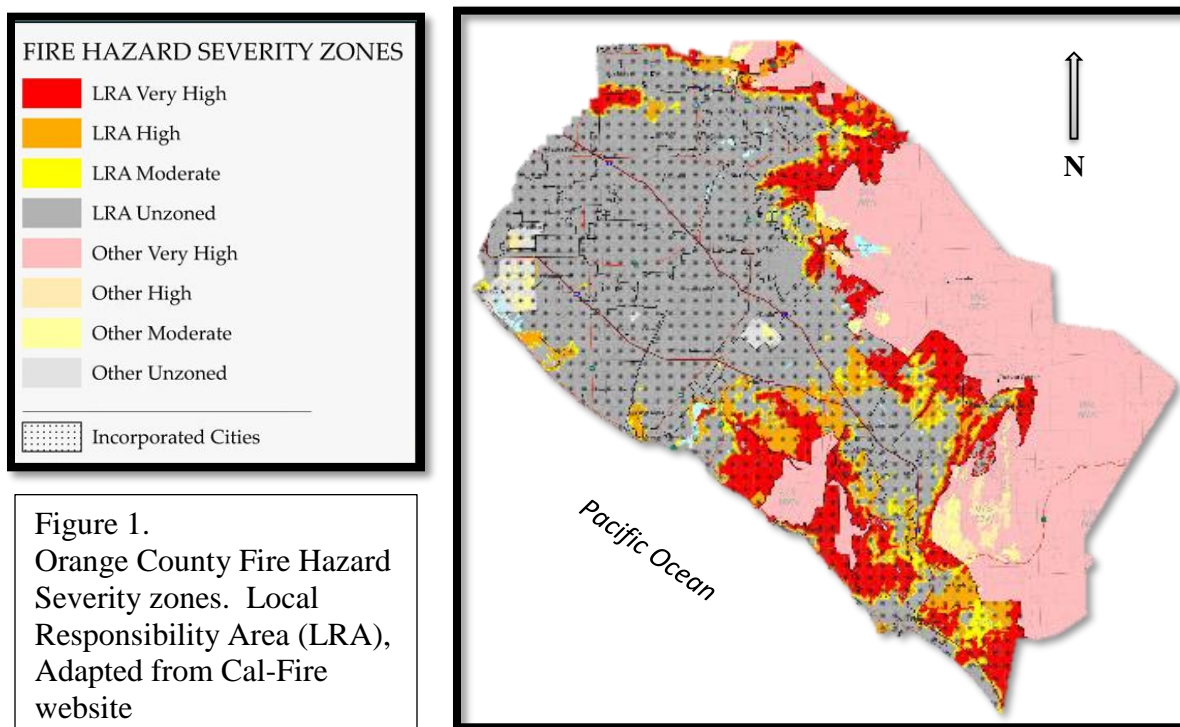
Among its recommendations, the Orange County Grand Jury calls for improved multiagency coordination of emergency public information and its rapid conveyance to the public. The Grand Jury also urges the adoption of updated hotline telephone technology capable of tracking caller metrics, plus the development of a formal standardized protocol for alerts and warnings. Because of difficulty with access to the County Emergency Operations Center during nearby wildland fires, authorities should adopt a procedure that will insure hotline operators and other workers are able to reach the facility even when surrounding public roads have been closed. Finally, the Orange County Grand Jury recommends the development of a system by which the County and cities shall obtain public feedback after an emergency on the effectiveness of their emergency public information strategy.

REASON FOR THE STUDY

Aware of Orange County's geographic vulnerabilities and the loss of life and property endured in recent northern California disasters, the Orange County Grand Jury (Grand Jury) decided to examine the state of this County's and its cities' Emergency Public Information (EPI) systems. It wanted to ensure that Orange County residents receive accurate information in the event of a fast-moving emergency event, particularly one that could impact multiple jurisdictions. Much of its examination centered on the handling of the Canyon 2 fire in the eastern section of the County because of its similarities to the northern California events.

The recent California wildfires that highlighted the pressing need for fast and accurate EPI included the Tubbs fire in Sonoma County in October 2017 and the Camp Fire in Butte County in November, 2018. In both cases, mass public alerting systems failed to alert sufficient numbers of residents in time.

The rising intensity and destructiveness of these fires are the result of a “perfect storm” of trends, including increasing periods of drought, housing sprawl into fire-prone areas and land management strategies that create an abundance of fuel in the form of dense forests and dry chaparral. Figure 1 shows Orange County’s wildfire vulnerabilities.



METHOD OF STUDY

The Grand Jury interviewed key personnel of the Orange County Sheriff’s Department Emergency Management Division (EMD)¹, Orange County Fire Authority (OCFA), and representatives from the cities of Anaheim, Huntington Beach, Laguna Beach, Mission Viejo, Orange, and Yorba Linda. Selected cities represented the diversity of Orange County in terms of physical location (i.e., north, central, south), size, topography, proximity to the ocean, and whether they have independent fire and law enforcement departments or contract with Orange County Sheriff’s Department (OCSd) and OCFA. The Grand Jury also interviewed Social

¹ See Appendix A for a list of acronyms and Appendix B for a glossary of terms.

Services Agency representatives who interface with the public during disasters and residents of Orange County who have been impacted by a large emergency affecting multiple jurisdictions.

The Grand Jury reviewed the emergency operations plans, crisis communication plans and after-action reports of various Orange County agencies, documents of the Federal Emergency Management Agency (FEMA), and state laws and regulations pertaining to emergency management and Alerts and Warnings. The Grand Jury also conducted onsite visits to the County Emergency Operations Center (EOC) and OCFA.

BACKGROUND AND FACTS

Fourteen of the 20 largest fires in California's history have occurred in the last 15 years, and experts predict the destructiveness of wildland fires in the state will continue to grow. The Tubbs fire (October 8, 2017) burned more than 36,000 acres, destroyed more than 5,600 structures, several neighborhoods in Santa Rosa, and caused 22 fatalities. The Camp fire (November 8, 2018) burned more than 153,000 acres, destroyed more than 18,000 structures, and caused 86 fatalities. In both cases, mass notification systems failed to alert large numbers of people in time. Because of the lessons learned from a long history of devastating fires, California has invested numerous resources to developing a system to help ensure that during an emergency, public safety is protected. History demonstrates that this system is effective when it is followed. This system is described below.

The Standardized Emergency Management System and Emergency Public Information

Standardized Emergency Management System (SEMS)

SEMS, established in 1993, is required by California Government Code Section 8607(a) to manage emergencies that involve multiple jurisdictions and agencies in California. Its purpose is to improve coordination of state and local emergency response and to facilitate the flow of information, between and among agencies and the public.

SEMS has a functional structure that is expandable to meet the needs of incidents of any size or complexity. (Appendix C) SEMS enables personnel from all agencies to blend quickly, with common terminology, thereby allowing the agencies to function in an integrated fashion. Local governments must use SEMS in order to be eligible for state reimbursement of response-related personnel costs during disasters.

The Operational Area (OA) and the Emergency Operations Center (EOC)

SEMS utilizes the concepts of the OA and the EOC. The OA includes the County and all political subdivisions within the County. In Orange County there are 114 jurisdictions

encompassing all County departments and agencies, cities, special districts, non-governmental organizations (NGOs) and unincorporated areas.

An EOC is a facility where resources and information are managed and coordinated during emergencies. Orange County and every city within the County have EOCs as required by SEMS regulations. When an incident is confined to a single jurisdiction, such as a city, only that jurisdiction's EOC is activated. When an incident involves multiple jurisdictions or if a single jurisdiction requests help from the County, the County's EOC (OA EOC) is activated. (Appendix D) City EOCs still must maintain contact and coordinate with the OA EOC through a liaison officer. Hereafter, the OA EOC will be referred to as "EOC."

The Morphing of SEMS

The strength and utility of SEMS lie in its flexibility and uniformity across jurisdictions. Uniformity is threatened when jurisdictions modify SEMS protocols to fit the design of their own unique organizational needs, rather than adjusting their emergency response structure to fit the SEMS design. In 2010, The California Emergency Management Agency conducted a survey which revealed numerous instances of chaotic emergency response over the previous decade. Some agencies had drifted away from the standardized SEMS protocols, thereby no longer functioning in a collaborative, unified manner. Morphing into disparate emergency management protocols undermines SEMS, thus weakening an agency's ability to respond to large multijurisdictional emergencies.

The Grand Jury found that Orange County and the six cities it examined all have comprehensive Emergency Operations Plans that are structured around SEMS. This applies whether the city utilizes its own police and fire department or contracts with the OCSD and OCFA for these services. However, during the Canyon 2 fire there were signs that the involved jurisdictions had drifted from strict adherence to SEMS protocols. This will be discussed in later sections.

Emergency Public Information (EPI)

One of the key components of SEMS is EPI. EPI consists of the processes to develop, coordinate and disseminate information to the public and emergency management responders in a timely manner and accessible format. The primary responsibility for these activities falls to the Public Information Officer. The Joint Information System and the Joint Information Center are integral to the success of the Public Information Officer. Following is a description of each of their functions:

- Public Information Officer (PIO): The PIO is part of the emergency management staff and reports to the Director of Emergency Services (DES) at the EOC. PIOs obtain their information from field commander(s) near the emergency, the DES, responding agencies,

the media, calls from the public and elected officials, other agencies such as utilities and the National Weather Service. The DES is the approving authority for all emergency public messaging. (Appendix E) The Grand Jury learned that coordination of information among agencies is the most challenging part of the PIO's job. The PIO holds an important position in the SEMS hierarchy as the liaison between the incident commanders and the public, but no standardized, uniform training requirements for PIOs exist within Orange County. PIOs within Orange County come from disparate backgrounds, including administration, journalism, communications, public relations, law enforcement and fire suppression. A robust training and development program ensures that participants in an organization have consistent experience and knowledge, improving the efficiency and success of their mission. PIOs can earn a Public Information Officer Specialist Certificate through the California Specialized Training Institute, which provides FEMA-approved training courses for PIOs.

- Joint Information System (JIS): The JIS is the organizational structure by which PIOs perform their essential duties. It is designed to organize, integrate and coordinate information to ensure timely, accurate, accessible, and consistent messaging across multiple jurisdictions. This may include the private sector and NGOs. During multijurisdictional emergencies, a lead PIO is selected. This individual is tasked with coordinating EPI among the involved jurisdictions so that they speak with one voice.
- Joint Information Center (JIC): The JIC is a central physical or virtual location that supports the JIS and where public information is coordinated. A physical JIC should be established at one of many pre-determined sites, ideally close to the source of information, such as the EOC, and have all the technical capabilities required for the incident. When time or distance renders a physical JIC impractical, a virtual JIC may be used. In Orange County, WebEOC provides the platform by which a virtual JIC is established. (Appendix F)

Emergency Public Information Delivery Systems in Orange County

- AlertOC: AlertOC is Orange County's regional public mass notification system designed to send emergency alerts to Orange County residents. The public receives these messages via landlines, cell phones, email, and TTY/TDD devices for the deaf. Landline phone numbers are automatically pre-loaded into the AlertOC system. However, residents must voluntarily opt in to receive the alerts via cell phones and email. Cities can use the AlertOC mass notification system for free through the County.
- Wireless Emergency Alerts (WEA): WEA messages are public text messages sent by local authorized government officials through wireless carrier networks. The messages

pertain to severe weather warnings, threatening emergencies such as fires, AMBER Alerts, and Presidential Alerts during national emergencies. Every WEA-enabled cell phone within the alerted area will receive the alert, thus voluntarily opting in is not an issue. The four largest cell phone carriers, AT&T, Verizon, Sprint, and T-Mobile, as well as the majority of smaller carriers, are WEA-enabled. WEA messages currently have a maximum length of 90 characters, but this maximum will have been increased to 360 by May, 2019. The WEA system has been criticized for having poor geo-targeting capabilities because messages spillover into areas not affected by the disaster. This spillover is scheduled to be reduced to no more than a tenth of a mile by November, 2019.

- The Emergency Alert System (EAS): The EAS is a national warning system that replaced the Emergency Broadcast System and is jointly coordinated by FEMA, the Federal Communications Commission (FCC) and the National Oceanic and Atmospheric Administration. This system allows federal, state and local governments to communicate with the public over cable television, AM/FM radio and TV broadcast systems. Although most stations will broadcast EAS messages, in Orange County the primary broadcast station is 107.9 KWVE and will broadcast all EAS messages.
- Social Media: Facebook and Twitter are the primary social media sites used by the County and cities for the dissemination of EPI. Some cities report they also utilize Nextdoor. These sites are for dissemination of information only; questions posed by the public are typically not answered on these sites.
- Website Pages: The County and cities post EPI and press releases on their websites. Some jurisdictions use red scrolling banners displaying EPI on the home page of their website. A recent upgrade made to the County's Emergency Management webpage now make evacuation maps created by emergency officials from affected jurisdictions exportable to the webpage for public viewing. Additionally, AlertOC and WEA messages now can redirect the recipient to the Emergency Management Division's webpage. In 2018, the County implemented a new software program which enables residents and employees in unincorporated areas to type in their address to determine whether they are in the mandatory evacuation zone.
- Media Outlets: Currently, press releases go to KCAL, KTLA, FOX 11 and KABC television stations, but the decision as to whether or not to broadcast the information is voluntary and depends upon the size and scope of the emergency. These stations have a scrolling message for EPI.

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- 211 Orange County: 211 is a telephone-based service set aside for the public by the FCC. It can be dialed 24 hours a day, seven days a week and live operators answer questions about available emergency County services. OCSD keeps the operators apprised of emergency public information so they are able to provide the most up-to-date information and instructions.
- Hotline: The EOC and affected cities set up hotlines during emergencies to answer questions from the public.
- Sirens: Sirens alert many people in a neighborhood to imminent danger. Sirens are especially useful in areas with poor cell phone service coverage and for fast-moving events occurring with little or no warning, such as tsunamis, but can be used for any emergency. Sirens are located in coastal cities such as Huntington Beach, Newport Beach, and Laguna Beach. Siren technology has come a long way since the air raid drills of the 1950s and 1960s. Modern sirens have several advantages over previous versions. Rather than emitting a single, mostly directional, blaring sound through mechanical means, they can emit live or pre-recorded messages with voice intelligibility that exceeds FEMA and U.S. Military guidelines for high-powered speaker array mass notification systems. In addition to speech clarity, modern sirens have other features which make them attractive to emergency managers, law enforcement, fire departments and the military. For example, they can focus broadcasts in a directional pattern or transmit in 360 degrees. They have a much larger coverage radius, are relatively lightweight, can be fixed or mobile, and can be battery as well as solar powered.
- Route Alerting and Door-to-Door Canvassing: Emergency officials, such as police, drive or walk through an affected area, alerting residents of the emergency and any actions they should take. Route alerting can be accomplished door-to-door or by public address system such as a loudspeaker mounted on a police car or fire engine. This is a slow process and depends on the availability of personnel.

Emergency Public Information Performance During Recent Orange County Emergencies

On October 9, 2017, at approximately 8:32 a.m., a westbound motorist on the 91 Freeway called 911 to report the presence of flames in Anaheim Hills; the Canyon 2 fire had begun. In all, 9,217 acres burned, 25 structures were destroyed and 55 more were damaged. No lives were lost but evacuations were mandated for portions of Anaheim Hills, Orange, North Tustin and Tustin Ranch.

According to a report on the initial response to the Canyon 2 Fire, OCFA dispatch breached normal protocol by having its closest station, a mile away from the scene, send a worker outside

to check for flames rather than immediately dispatching responders. At that early point in the fire only westbound motorists on the 91 Freeway could see flames. The worker reported high wind and dust, but no flames. By not following protocol, OCFA disregarded at least 10 subsequent 911 calls reporting fire. It wasn't until 70 minutes later, at 9:42 a.m., that OCFA responded appropriately.

While the delayed response to the fire forced authorities to play catch-up when it came to alerting the public, strict adherence to SEMS protocols and best practices would have helped minimize confusion and disorganization in such a challenging situation.

Lead Agency and Message Coordination

The Grand Jury learned that by agreement among involved PIOs, the City of Anaheim took the lead after the event became multijurisdictional. However, the City of Anaheim continued to disseminate emergency information relevant to only its own residents. Without coordinating with the other jurisdictions impacted by the fire, EPI could not be delivered with one voice, a process considered to be a best practice in SEMS.

Joint Information Center

There was an attempt by the City of Anaheim to set up a JIC from which EPI could be coordinated among jurisdictions and disseminated. Anaheim's three pre-selected sites were considered technologically inadequate to support the needs of this particular emergency. Subsequently, the City set up a JIC at Disneyland's media center, which had the necessary technological capabilities. However, many of the personnel required to staff the JIC could not get admitted to the facility, rendering it ineffective. The JIC was terminated and never reactivated at a viable alternate location. SEMS' best practices states that a JIC should be established at one of many pre-determined sites, ideally close to the source of information, such as the EOC, and have all the technical capabilities required for the incident. Pre-determining a technologically capable and accessible site may have prevented failure of the JIC.

Agency Representation

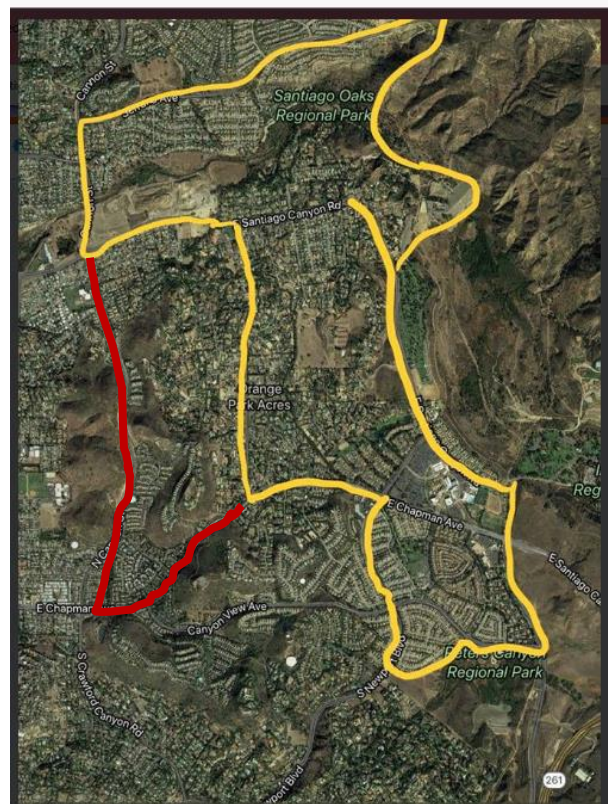
The Grand Jury learned that due to a shortage of emergency response personnel in the City of Orange, the City did not attempt to send any representative or a liaison to the JIC or to the County EOC. The public emergency PIOs for the City were assigned to their roles as emergency responders (Police and Fire) rather than as PIOs. City officials, authorized to issue alerts and warnings, were unfamiliar with the system and unable to log into the AlertOC to send out a mandatory evacuation notice. The City had to contact the County EOC to write and disseminate a message to the residents and businesses of the City of Orange, causing delays.

EOC and Message Coordination

Under SEMS, the County EOC is the hub of interagency coordination. However, during the Canyon 2 fire, conflicting information was disseminated by the County EOC. Figure 5 shows two dissimilar messages were sent approximately 20 minutes apart by the EOC and illustrates the problems that can arise when information is not checked for consistency. The instructions and the map are inconsistent, depicting two different mandatory evacuation areas in the City of Orange at roughly the same time. The AlertOC message was created by the Sheriff's EOC Alerts and Warnings Unit and includes the red and yellow areas of the map in its message. The map (yellow area), previously tweeted by the city of Orange, was obsolete when retweeted by the Sheriff's EOC Social Media Unit, approximately 20 minutes after the Alert OC message went out.

“A mandatory evacuation order has been issued for...All areas south of Santiago Canyon Rd., East of Cannon/Crawford Canyon and North of Tustin Ranch and west of Jamboree are under mandatory evacuation.”

Figure 5. AlertOC message sent out at 2:28 p.m. (above) and a map retweeted at 2:57 p.m. by the County EOC. Red area shows the discrepancy between AlertOC and social media. (Map source: City of Orange, used with permission.)



In a meeting of Orange Park Acres residents with leaders from the City of Orange after the Canyon 2 fire, the residents expressed the desire for the County and cities to establish a centralized location for evacuation orders. They felt that such a strategy would avoid the confusion that results from trying to piece together information from different sources.²

² Orange County Register, Jonathan Winslow, Published November 24, 2017.

AlertOC

AlertOC messages do not reach enough people because landlines are disappearing and not enough Orange County residents have signed up with AlertOC. To date, fewer than 20,000 residents, or approximately two percent of residents in the County, have signed up with AlertOC.

The Grand Jury learned that many residents impacted by the Holy Jim fire of August 2018 did not receive an anticipated AlertOC message. One of the reasons for this error was that the County's vendor for AlertOC was using mapping data which had not been updated since 2014. South Orange County has several newer neighborhoods and, when County officials manually selected the neighborhoods in the vendor's software, many newer addresses were left out.

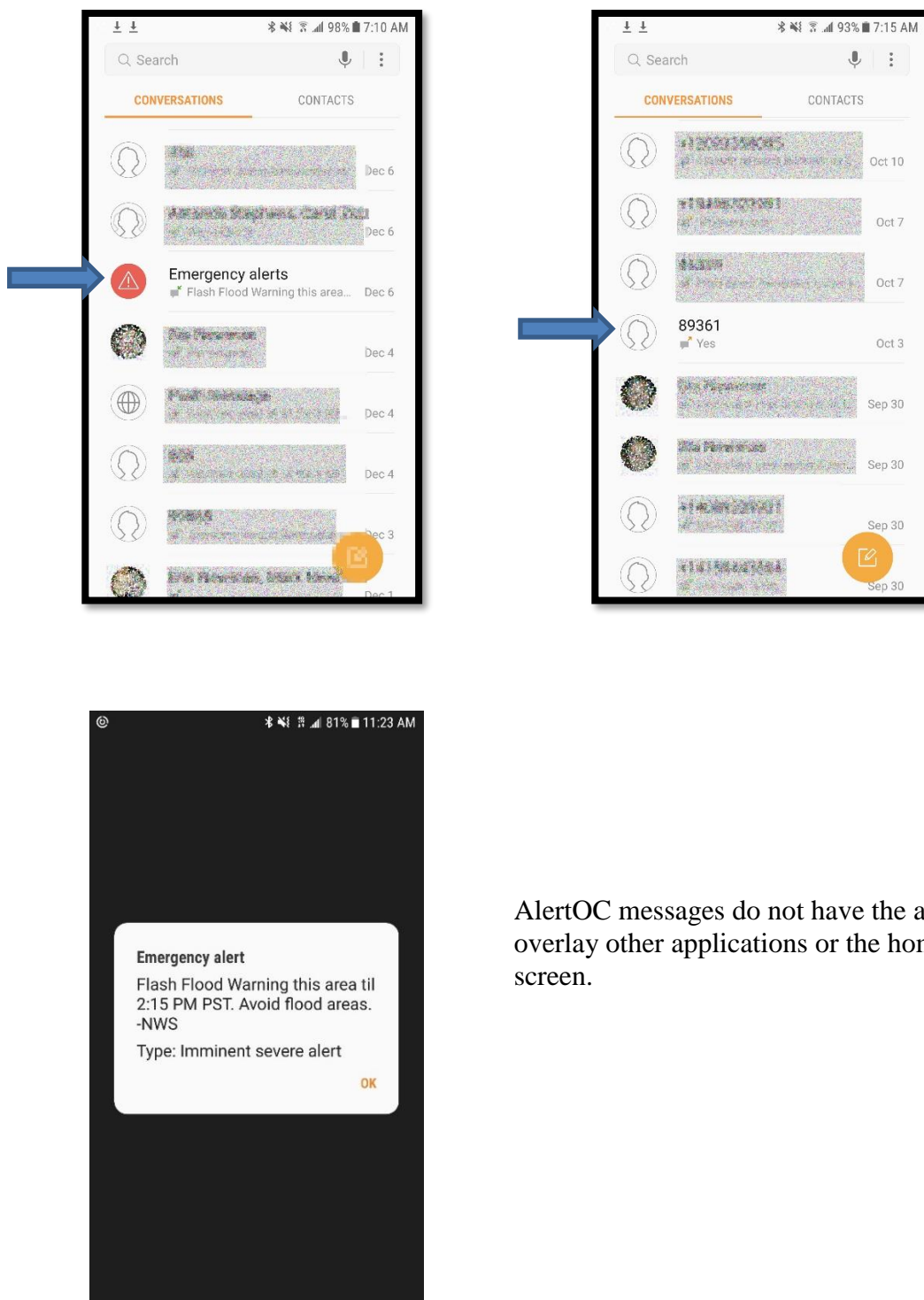
A recently passed California law has the potential for greatly increasing the number of Orange County residents enrolled in AlertOC. The death and destruction caused by recent fires in northern California prompted the creation of Senate Bill 821, which was signed into law on September 21, 2018. This legislation allows counties and cities to enter into agreements to access all contact information of resident account holders through public utility or agency records, for the sole purpose of enrolling California residents into the mass notification systems that serve their area.

WEA

WEA messages are text messages sent by local authorized government officials to the public through wireless carriers' networks.

AlertOC messages and WEA messages appear very different on various cell phone screens. Figure 6 shows how these two types of messages appeared on a cell phone screen during the Canyon 2 fire and the image below shows the added feature of WEA messages overlaying other applications on a typical mobile phone.

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AlertOC messages do not have the ability to overlay other applications or the home screen.

Figure 6. WEA (left) and AlertOC (right) messages in a list of text messages on a mobile phone, and how WEA messages overlay the home screen. Source: 2018-2019 Grand Jury.

There are some obvious differences between the WEA and AlertOC messages. The WEA message causes a cell phone to vibrate twice for a few seconds and overlays any current image or application screen on the phone. AlertOC messages enter the phone as an ordinary text message. The WEA messages contain a bright red ICON with a white exclamation point inside a white triangle, along with the words “Emergency Alerts” in the message title. The AlertOC message appears with no ICON and random numbers as the caller ID. The message resembles any number of junk text messages that plague most cell phone users today, which can cause the user to ignore an important message.

Sirens

On March 6, 2019, at 3:00 p.m., the City of Laguna Beach launched the County’s first simultaneous test of its WEA and Long Range Acoustic Device (LRAD®)³ siren systems. (Appendix E) The WEA message included a link to a survey whereby residents and visitors could provide feedback. One City emergency management official said the exercise was considered a success with a larger than expected response.

Using a combination of strategies to alert the public is especially beneficial when emergencies occur at night or in areas with unreliable mobile phone reception, such as in canyon areas. No one method of alerting the public reaches everyone, so authorities should use every means at their disposal to quickly reach the most residents.

Hotlines

Telephone hotlines provide an additional avenue by which EPI can be disseminated. During the Canyon 2 and Holy Jim fires, hotlines were activated by the County EOC. Eighty-five percent of the calls to the Sheriff’s Department’s hotline during the Canyon 2 fire pertained to evacuations.

Sources reported that there was a shortage of personnel working the hotline during the Canyon 2 fire. On the first day of the fire, when residents were trying to determine whether or not to evacuate their homes, fewer than half of available hotline phones were staffed because the expected number of hotline staff did not appear. The EOC is located in a high fire zone and was affected by the fire that day. Nearby road closures prevented hotline staff from reaching the EOC. There was no protocol allowing workers past the closures.

³ LRAD® Corporation developed the Long Range Acoustic Device in 2003, an acoustic hailing device used for long range communications in a variety of applications, including mass notification and non-lethal crowd control.

The County EOC hotline system is basic, lacking the sophistication of modern systems which can track caller metrics, such as wait times and missed calls. Without quantifiable caller metrics, hotline staffing decisions are based on relatively primitive metrics, such as observing how long the operator waits between phone calls. During the first day of the fire, some operators had no time between calls; as soon as they hung up from one call, they immediately picked up the next call without waiting for the phone to ring. There is no way to ascertain how many callers were unable to get through.

Hotline staff are required to enter caller information into a computer software program, including the subject matter of the call. The Grand Jury learned that hotline staff had not undergone recent training on the software, thus some operators hand-wrote notes on paper during the calls and entered the information into the software at the end of their shifts, decreasing efficiency and increasing the potential for reporting errors.

Other Problems Identified During Recent Emergencies

Standardized Emergency Management Vocabulary

Some Orange County emergency management representatives are frustrated by a lack of standardized emergency management vocabulary. They feel this causes confusion and decreases efficiency. For example, there is disagreement among Orange County jurisdictions regarding the use of “evacuation warning” versus “voluntary evacuation.” A lack of standardized vocabulary is one of the problems that SEMS seeks to solve.

No Interagency Coordination

During the Canyon 2 fire, a lack of interagency communication led to confusion about routes while mandatory evacuations already were underway. While interagency communication is not EPI per se, agencies must be in agreement regarding evacuations in order to avoid confusion and allow evacuations to proceed smoothly and quickly.

For example, the California Highway Patrol directed motorists to exit the 91 Freeway at Weir Canyon Road/Yorba Linda Blvd and the City of Anaheim also directed residents in Anaheim Hills to evacuate in the opposite direction via Weir Canyon Road/Yorba Linda Blvd. The large amount of cross traffic caused gridlock and could have negatively impacted the safety of motorists who were trying to leave the area. As another example of confusion, a school in the City of Orange sent evacuating students to Canyon High School in Anaheim Hills, which already had been evacuated. This caused delays in getting the students to a suitable shelter to await the arrival of their parents.

Feedback

The Grand Jury ascertained that neither the County nor cities systematically obtain feedback from residents after major emergencies, instead relying on town halls and resident complaints. A 2010 paper published by The Urban Institute Center on International Development and Governance stressed the importance of actively seeking feedback from recipients of public services. The authors noted that measuring residents' opinions on services they receive makes government agencies more accountable and helps to improve the effectiveness of their services. In fact, these surveys are often the only technique available to obtain accurate data for the outcomes of certain services. The report points out that focus groups, town hall meetings, and/or citizen complaints "do not provide public officials with data that are likely to be sufficiently representative of the population."⁴ According to the authors, some people may not know how to file a complaint and/or may not feel it would do any good to complain. Also, many people would likely be unable to attend a town hall meeting. The authors also point out that government organizations may be reluctant to obtain public feedback due to limited resources and time. However, costs can be reduced by using a variety of approaches such as the internet, robocalls and mail-in surveys. Costs also could be decreased by opting for a smaller sample size as long as a sufficient statistical confidence level can be maintained.

⁴ Nayyar-Stone, Ritu & Harry P. Stone, *Using Survey Information to Provide Evaluative Citizen Feedback for Public Service Decisions*. June 2010.

FINDINGS

In accordance with *California Penal Code* Sections §933 and §933.05, the 2018-2019 Grand Jury requires (or as noted, requests) Responses from each agency or special district affected by the Findings presented in this section. The Responses are to be submitted to the Presiding Judge of the Superior Court.

Based on its investigation, titled “Emergency Public Information-Should I Stay or Should I Go?”, the 2018-2019 Orange County Grand Jury has arrived at 11 principal Findings:

F1: Lack of coordination among the involved agencies caused Emergency Public Information sent out about evacuations during the Canyon 2 fire to be inconsistent, and confused residents.

F2: Some emergency management personnel, tasked with creating and disseminating Emergency Public Information, in a rapidly-evolving, multijurisdictional emergency did not fully understand their roles and responsibilities.

F3: No training standards for Public Information Officers exist and there are no formal written protocols for issuance of mass notification, including required training on the use of mass notification systems.

F4: The County’s vendor for the AlertOC mass notification system had not updated its GIS mapping software, so some residents in newer neighborhoods did not receive an AlertOC message during the Holy Jim fire.

F5: The lack of a standardized written protocol for Alerts and Warnings decreases the ability of the County and its Operational Area jurisdictions to speak with one voice when it comes to alerting the public during emergencies.

F6: The outdated hotline telephone technology at the County Emergency Operations Center cannot track caller metrics, so staffing decisions are made based on observing the length of time between incoming phone calls.

F7: During the Canyon 2 fire, procedures allowing some hotline workers to pass road closures were ineffective, which led to a shortage of operators during the first day of the fire.

F8: Some hotline operators are not current on the use of the software for logging incoming phone calls, thus decreasing their efficiency.

F9: The County and interviewed cities do not seek sufficient public feedback of the perceptions of effectiveness of the Emergency Public Information.

F10: The lack of standardized emergency management terminology among the various jurisdictions within Orange County causes delays and confusion in the dissemination of Emergency Public Information.

F11: Orange County jurisdictions and the California Highway Patrol lack a joint plan for evacuation routes, thus evacuations can be chaotic, creating increased potential for danger to residents.

RECOMMENDATIONS

In accordance with *California Penal Code* Sections §933 and §933.05, the 2018-2019 Grand Jury requires (or as noted, requests) Responses from each agency or special district affected by the Recommendations presented in this section. The Responses are to be submitted to the Presiding Judge of the Superior Court.

Based on its investigation titled “Emergency Public Information-Should I Stay or Should I Go?”, the 2018-2019 Orange County Grand Jury makes 9 Recommendations:

R1: By September 30, 2019, the Board of Supervisors, should establish minimum standards/expectations for individual cities who voluntarily participate in centralized Emergency Public Information planning activities in order to protect public safety during multijurisdictional emergencies. (F1)

R2: By December 31, 2019, using the authority derived from **R1** (above), the Emergency Operations Center should establish specific minimum standards/expectations with regard to coordination and dissemination of Emergency Public Information that follow SEMS guidelines, by which committed cities must comply for multijurisdictional emergencies. (F1, F5, F10)

R3: By September 30, 2019, the County Emergency Operations Center, the six cities interviewed by the Grand Jury and Orange County Fire Authority should adopt a standardized written protocol for issuance of mass notifications and require training on their software systems, whether the WEA service, AlertOC or any other system is utilized. (F1, F2, F3, F4, F5)

R4: By September 30, 2019, the six cities interviewed by the Grand Jury should pre-select facilities with sufficient technical capability and of various sizes that are readily accessible to all authorized personnel for use as potential Joint Information Centers so they can be activated in a timely manner. (F1)

R5: By September 30, 2019, the County Emergency Operations Center should modernize its hotline telephone technology. (F6)

R6: By September 30, 2019, the County Emergency Operations Center should ensure hotline personnel maintain current training and are provided appropriate physical access during emergencies. (F7, F8)

R7: By September 30, 2019, The Orange County Sheriff’s Department and each interviewed city’s Emergency Management Division should adopt a proactive process by which residents impacted by an emergency can easily provide feedback regarding their experience with Emergency Public Information, such as by telephone, mail-in, and/or online surveys. **(F9)**

R8: By September 30, 2019, a task force, made up of representatives from all Operational Area jurisdictions, public safety Public Information Officers and state public safety professionals, such as California Highway Patrol, should be created to develop an emergency operations plan for large, wide-spread disasters. **(F11)**

R9: By September 30, 2019, the Orange County Sheriff’s Department should seek, at a minimum, semi-annual updates on AlertOC vendor software and concurrently request regular updates on its capabilities. **(F4)**

RESPONSES

The following excerpts from the California Penal Code provide the requirements for public agencies to respond to the Findings and Recommendations of this Grand Jury report:

§933(c)

“No later than 90 days after the grand jury submits a final report on the operations of any public agency subject to its reviewing authority, the governing body of the public agency shall comment to the presiding judge of the superior court on the findings and recommendations pertaining to matters under the control of the governing body and every elected county officer or agency head for which the grand jury has responsibility pursuant to Section 914.1 shall comment within 60 days to the presiding judge of the superior court, with an information copy sent to the board of supervisors, on the findings and recommendations pertaining to matters under the control of that county officer or agency head or any agency or agencies which that officer or agency head supervises or controls. In any city and county, the mayor shall also comment on the findings and recommendations. All of these comments and reports shall forthwith be submitted to the presiding judge of the superior court who impaneled the grand jury. A copy of all responses to grand jury reports shall be placed on file with the clerk of the public agency and the office of the county clerk, or the mayor when applicable, and shall remain on file in those offices. . . . ”

§933.05

“(a) For purposes of subdivision (b) of Section 933, as to each grand jury finding, the responding person or entity shall indicate one of the following:

(1) The respondent agrees with the finding.

(2) The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefor.

(b) For purposes of subdivision (b) of Section 933, as to each grand jury recommendation, the

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responding person or entity shall report one of the following actions:

(1) The recommendation has been implemented, with a summary regarding the implemented action.

(2) The recommendation has not yet been implemented, but will be implemented in the future, with a timeframe for implementation.

(3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a timeframe for the matter to be prepared for discussion by the officer or head of the agency or department being investigated or reviewed, including the Governing body of the public agency when applicable. This timeframe shall not exceed six months from the date of publication of the grand jury report.

(4) The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefor.

(c) However, if a finding or recommendation of the Grand Jury addresses budgetary or personnel matters of a county agency or department headed by an elected officer, both the agency or department head and the board of supervisors shall respond if requested by the grand jury, but the response of the board of supervisors shall address only those budgetary or personnel matters over which it has some decision-making authority. The response of the elected agency or department head shall address all aspects of the findings or recommendations affecting his or her agency or department.”

Comments to the Presiding Judge of the Superior Court in compliance with Penal Code §933.05 are required from:

<u>Required Responses</u>	<u>Findings</u>	<u>Recommendations</u>
Board of Supervisors	F1, F5	R1, R2
OCSD	F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11	R2, R3, R4, R5, R6, R7, R8, R9
OCFA Board of Directors	F1, F3, F5, F9, F10, F11	R3, R7, R8
City Councils from:		
City of Anaheim	F1, F2, F3, F5, F9, F10, F11	R2, R3, R4, R7, R8
City of Huntington Beach	F1, F2, F3, F5, F9, F10, F11	R2, R3, R4, R7, R8
City of Laguna Beach	F1, F2, F3, F5, F9, F10, F11	R2, R3, R4, R7, R8
City of Mission Viejo	F1, F2, F3, F5, F9, F10, F11	R2, R3, R4, R7, R8
City of Orange	F1, F2, F3, F5, F9, F10, F11	R2, R3, R4, R7, R8
City of Yorba Linda	F1, F2, F3, F5, F9, F10, F11	R2, R3, R4, R7, R8

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APPENDIX**Appendix A****List of Acronyms**

DES	Director of Emergency Services
EAS	Emergency Alert System
EMD	Emergency Management Division
EOC	Emergency Operations Center
EPI	Emergency Public Information
FEMA	Federal Emergency Management Agency
ICS	Incident Command System
JIC	Joint Information Center
JIS	Joint Information System
LRAD®	Long Range Acoustic Device
NGO	Non-governmental organization
OA	Operational Area
OCFA	Orange County Fire Authority
OCSD	Orange County Sheriff's Department
OAC	Operational Area Coordinator
PIO	Public Information Officer
SEMS	State Emergency Management System
WEA	Wireless Emergency Alert

Appendix B

Glossary of Terms

Adapted from multiple sources and documents

After Action Report: A report covering response actions, application of SEMS, modifications to plans and procedures, training needs and recovery activities. After action reports are required under SEMS after any emergency which requires a declaration of an emergency. Reports are required within 90 days.

Command: The act of directing and/or controlling resources at an incident by virtue of explicit legal, agency or delegated authority. May also refer to the Incident Commander.

Cooperating Agency: An agency supplying assistance other than direct tactical, support functions, or resources to the incident control effort (e.g., American Red Cross, telephone company, other utilities, etc.).

Coordination: The process of systematically analyzing a situation, developing relevant information and informing appropriate command authority of viable alternatives for selection of the most effective combination of available resources to meet specific objectives. The coordination process (which can be either intra- or interagency) does not involve dispatch actions. However, personnel responsible for coordination may perform command or dispatch functions within the limits established by specific agency delegations, procedures, legal authority, etc. Multiagency or Interagency coordination is found at all SEMS levels.

Disaster: A sudden calamitous emergency event bringing great damage, loss or destruction, and threatens public safety.

Emergency: A condition of disaster or of extreme peril to the safety of persons and/or property caused by such conditions as air pollution, fire, flood, hazardous material incident, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestations or disease, earthquake, tsunami.

Emergency Management Director (Emergency Services Director): The individual within each political subdivision that has overall responsibility for jurisdiction emergency management. For cities and counties, this responsibility is commonly assigned by local ordinance.

Emergency Operations Center (EOC): A location from which centralized emergency management can be performed. EOC facilities are established by an agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency.

Emergency Operations Plan: The plan developed at SEMS EOC levels which contains objectives, actions to be taken, assignments and supporting information for the next operational period.

Event: A planned, non-emergency activity. ICS can be used as the management system for a wide range of events, e.g., parades, concerts or sporting events.

Finance/Administration Section: One of the five primary functions found at all SEMS levels, which is responsible for all costs and financial considerations.

Incident: An occurrence or event, either caused by humans or by natural phenomena, that requires action by emergency response personnel to prevent or minimize loss of life or damage to property and/or natural resources.

Incident Commander: The individual responsible for the command of all functions at the field response level of an incident. Sets incident objectives and priorities.

Incident Command System (ICS): The nationally used standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents without compromising the legal jurisdictional authority of individual agencies (e.g., cities). ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, with responsibility for the management of resources to effectively accomplish stated objectives pertinent to an incident.

Jurisdiction: The range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., special district, city, county, state or federal boundary lines), or functional (e.g., police department, health department, etc.).

Jurisdictional Agency: The agency having jurisdiction and responsibility for a specific geographical area or a mandated function.

Liaison Officer: A member of the Command Staff at the Field SEMS level responsible for coordinating with representatives from cooperating and assisting agencies. At SEMS EOC levels, the function may be done by a Coordinator and/or within a Section or Branch reporting directly to the EOC Director.

Local Government: Means local agencies per Article 3 of the SEMS regulations. The Government Code section 8680.2 defines local agencies as any city, city and county, county, school district or special district.

Logistics Section: One of the five primary functions found at all SEMS levels. The Section responsible for providing facilities, services and materials for the incident or at an EOC.

Master Mutual Aid Agreement: An agreement entered into by and between the State of California, its various departments and agencies and the various political subdivisions, municipal corporations, and public agencies of the State of California, to assist each other by providing resources during an emergency. Mutual Aid occurs when two or more parties agree to furnish

resources and facilities and to render services to each other to prevent and combat any type of disaster or emergency.

Multijurisdictional Incident: An incident requiring action from multiple agencies in which each agency has jurisdiction over certain aspects of the incident. In SEMS/ICS such an incident is managed under a Unified Command with representatives from involved agencies.

Public Information Officer: The individual at field or EOC level that has been delegated the authority to prepare public information releases and to interact with the media. Duties will vary depending upon the agency and SEMS level.

Section: The organization level with responsibility for a major functional area of the incident or at an EOC, e.g., Operations, Planning/Intelligence, Logistics and Administration/Finance.

Special District: A political subdivision within a specific geographic area established to provide a public service, such as water, sanitation or library services.

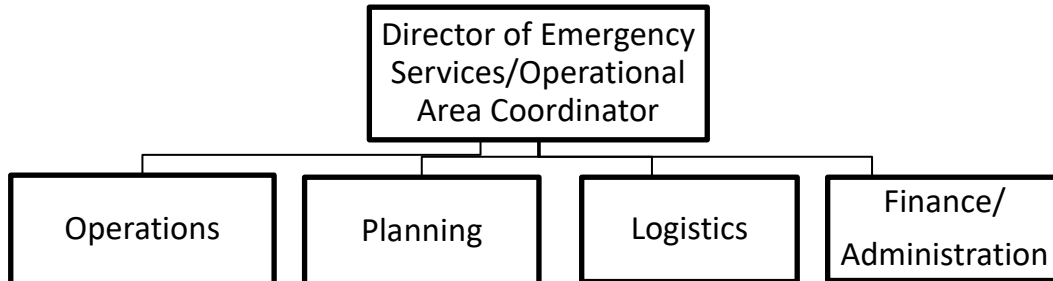
Standardized Emergency Management System (SEMS): A system required by California Government Code for managing response to multiagency and multijurisdictional emergencies in California. SEMS consists of five organizational levels which are activated as necessary: Field Response, Local Government, Operational Area, Region and State.

Strategy: The general plan or direction selected to accomplish incident or EOC objectives.

Task Force: A combination of single resources assembled for a particular tactical need with common communications and a leader.

Appendix C

State Emergency Management System Basic Functional Structure and Definition of Terms



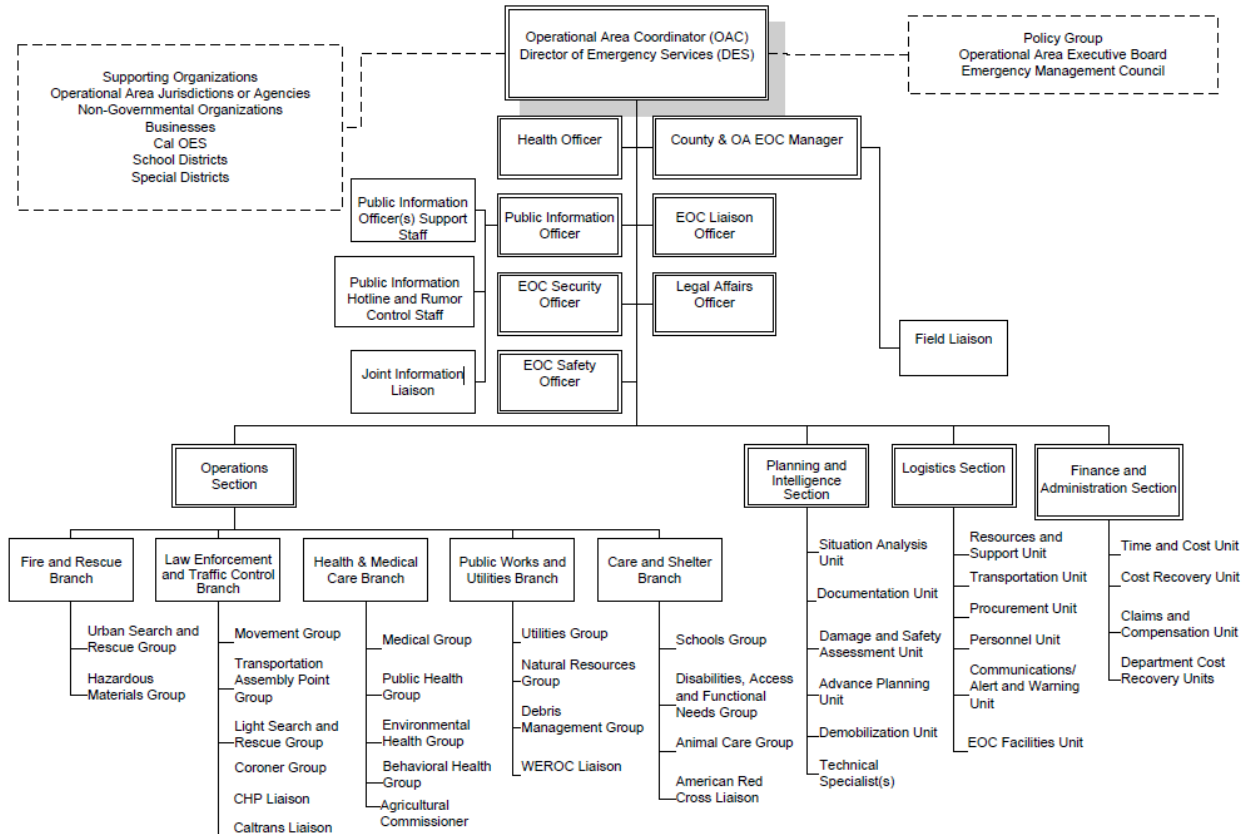
- **Director of Emergency Services (DES)/Operational Area Coordinator (OAC):** The DES directs the county's emergency organization during times of emergency which impact the unincorporated areas of the county. DES sets incident objectives and priorities and has overall responsibility at the incident or event. *The incident is managed jointly by representatives from the involved agencies.* The OAC is responsible for ensuring direction, coordination, and communication of policy decisions, resource needs, and priorities among OA jurisdictions and between OA jurisdictions and the State.
- **Operations:** Conducts tactical operations to carry out the plan of commander at the field level near the incident. Develops the tactical assignments and organization and directs all tactical resources.
- **Planning:** Prepares and documents the plan to accomplish the incident objectives, collects and evaluates information, maintains resource status and maintains documentation for incident records.
- **Logistics:** Provides support, resources and all other services needed to meet the incident objectives.
- **Finance/Administration:** Monitors costs related to the incident. Provides accounting, procurement, time recording and cost analyses.

Source: Created from multiple publicly available documents by the 2018-2019 Orange County Grand Jury.

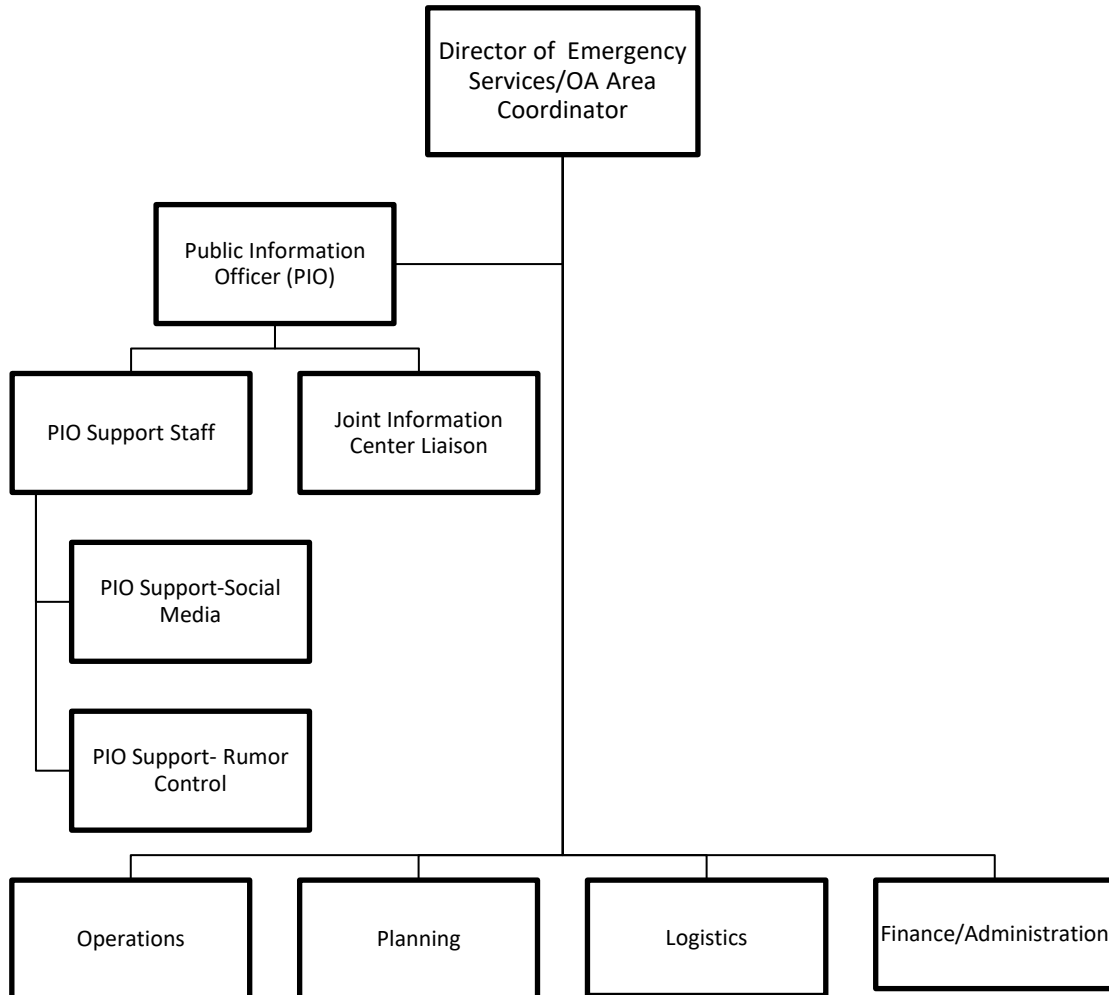
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Appendix D

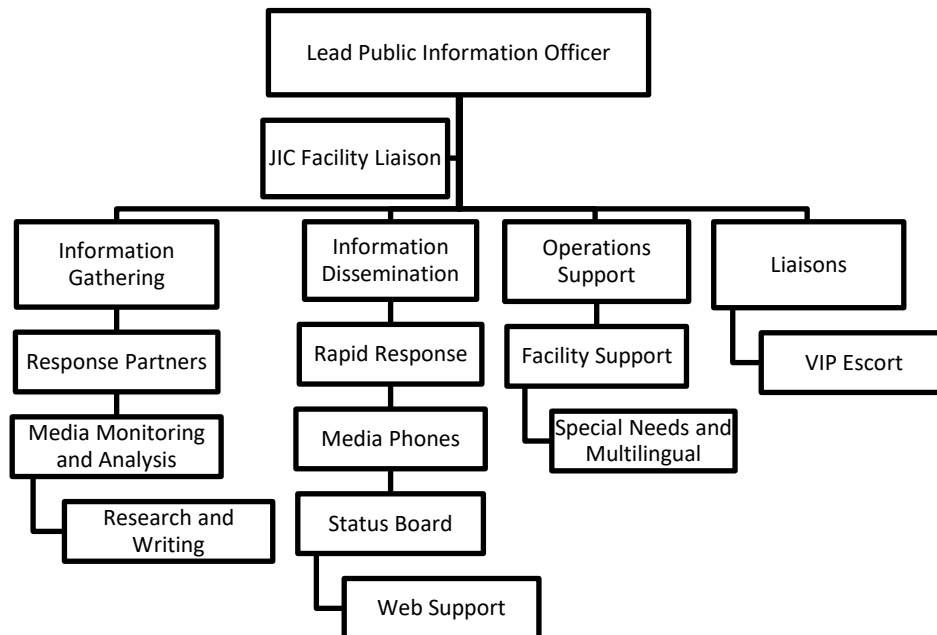
State Emergency Management System (SEMS) functional structure at the County level.



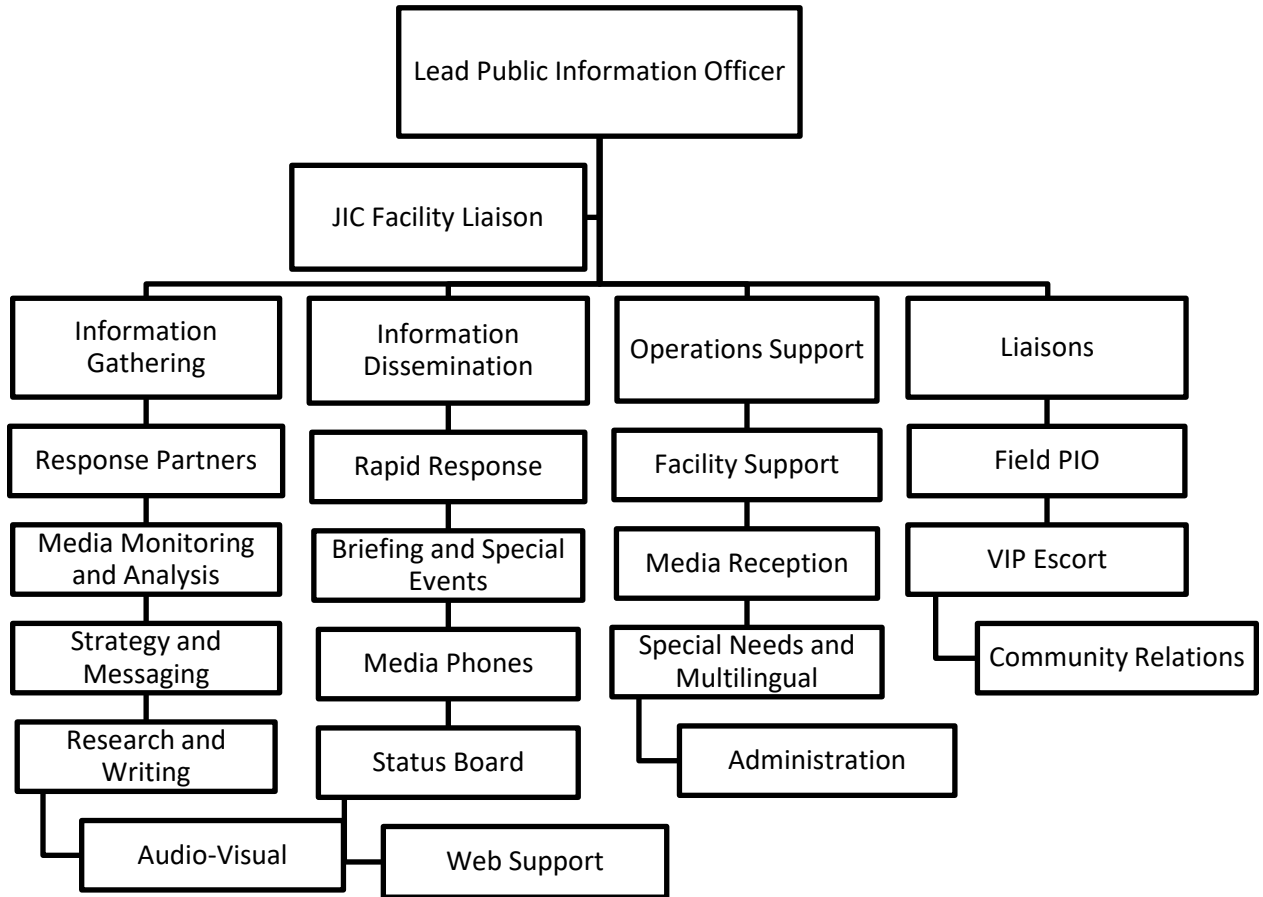
Adapted from Orange County Sheriff's Department Emergency Management Division.

Appendix E**SEMS Structure with expansion of management module to show PIO and PIO staff.**

Source: Created from multiple publicly available documents by the 2018-2019 Orange County Grand Jury.

Appendix F, 1-3**Joint Information Center (JIC) organizational charts for progressively more complex emergencies.****1. Initial Response or Local Incidents****2. Expanding Incidents**

3. Large-scale Incidents



Source: Created from multiple publicly available documents by the 2018-2019 Orange County Grand Jury.

Appendix G

LRAD® 360 XT with trailer
Adapted from LRAD® Corporation
website, with permission

