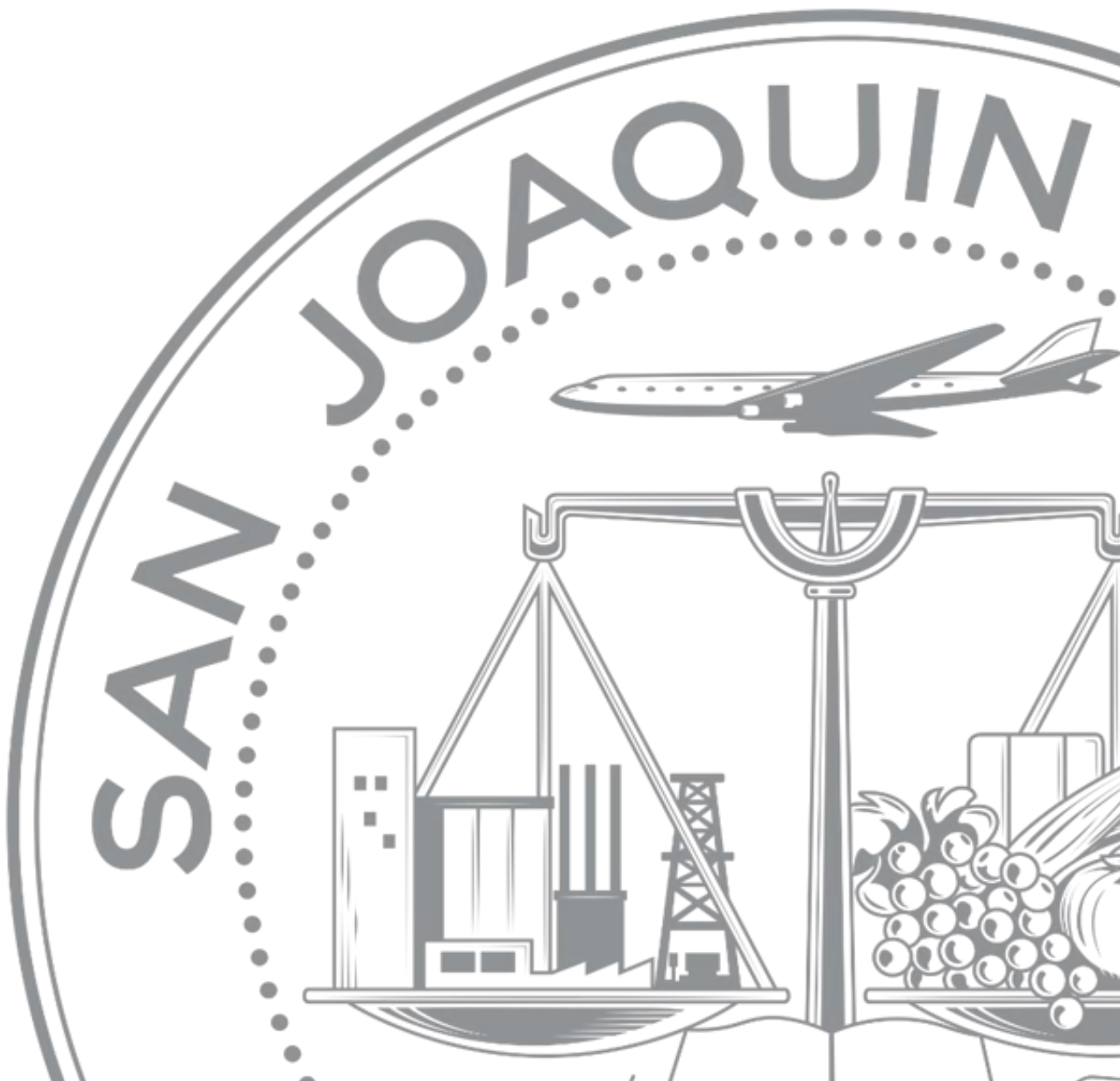




Greatness grows here.

Alert and Warning Support Annex

December 2025



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Letter of Promulgation


This Annex to the County of San Joaquin Emergency Operations Plan describes how San Joaquin County will manage emergency incident or disaster mitigation, preparedness, response, and restoration related to this annex. All Primary and Support agencies identified as having assigned responsibilities in this annex shall perform the emergency tasks as described to include preparing and maintaining Standard Operating Guidelines and Procedures, and carrying out the training, exercises and plan maintenance needed to support the plan.

This annex was developed using Comprehensive Planning Guide 101 version 2 from the Federal Emergency Management Agency and California's emergency planning guidance documents. Adoption will occur following the established maintenance schedule; however, the plan may be modified in the interim without prior approval and formal adoption under the direction of the Director of Emergency Operations. The modified plan will be relayed digitally to all Primary and Support agencies identified as having assigned responsibilities in this annex. In addition, the plan will be available on the San Joaquin County Office of Emergency Services webpage. The Primary assigned agency will coordinate the review and update of the plan with the Support agencies as needed at least every two years. This annex supersedes any previous versions.

This Annex applies to Primary and Support agencies within San Joaquin County who are assigned responsibilities in *Section 4.3.1 Responsibilities by Emergency Support Function* of the All-Hazard EOP and/or identified within the ESF Annex.

This plan replaces previous annexes of the same title.

This annex will be formally promulgated by the chairperson of the Disaster Council of San Joaquin County at the next regularly scheduled meeting. The Disaster Council is empowered by County Ordinance to review and approve emergency and mutual aid plans.



Supervisor Paul Canepa
Chair, San Joaquin County Disaster Council
Director of Emergency Services

12-15-2025

Date

Plan Administration

San Joaquin County Office of Emergency Services, Director of Emergency Operations, will coordinate review, revise, and re-promulgate this annex at least once every two years or when key changes occur, such as lessons learned from exercises or real events. The San Joaquin County Director of Emergency Operations may make changes without formal Disaster Council approval. This document supersedes all previous Alert and Warning hazard annexes for the Operational Area.

Record of Changes

All updates and revisions to this annex will be tracked and recorded in the following table. This process will ensure that the most recent version of the plan is disseminated and implemented by emergency response personnel.

Date	Change No.	Change made by (name/title)	Summary of Changes

Plan Distribution

San Joaquin County Office of Emergency Services maintains the County of San Joaquin Emergency Operations Plan in the San Joaquin County Emergency Operations Center Library. This document upon signature will become an annex to the Emergency Operations Plan. The primary method of Emergency Operations Plan distribution is electronic, with a copy available on the San Joaquin County Office of Emergency Services Web page.

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Primary Agency: San Joaquin County Office of Emergency Services

Supporting Agencies: San Joaquin County
Sheriff's Office
San Joaquin County Information Systems
Division
City of Escalon
City of Lathrop

City of Lodi
City of Manteca
City of Mountain House
City of Ripon
City of Stockton
City of Tracy

1 INTRODUCTION

1.1 PURPOSE

This Annex establishes general and specific policies, procedures, and protocols for the use of Alert and Warning systems in the San Joaquin County Operational Area (OA) during actual or potential emergencies that pose a significant threat to life or property. Timely and effective alerts and warnings are critical to life safety of San Joaquin County residents, visitors, and first responders. Residents and visitors must be informed of threats and directed to take appropriate action as quickly and as accurately as possible. Therefore, it is necessary to clearly define authorities, responsibilities, and procedures.

The words “alert” and “warning” often are used interchangeably, but in this document those words are used in specific senses:

Alert - A communication intended to **draw the attention** of recipients to some previously unexpected or unknown condition or event.

Warning - A communication that encourages recipients to **take immediate protective actions** appropriate to an emergent hazard or threat.

1.2 SCOPE

This annex applies to those incidents that require warning of the public through established emergency notification systems. Communications and warning provisions apply to almost any major natural, technological, or civil emergency or disaster event.

1.2.1 Alert and Warning Objectives

This Annex supports the four key objectives of the County Alert & Warning program:

1. Proactively warn the public of threats by providing timely, targeted, accurate, and actionable information.
2. Use multiple, redundant and overlapping alerting systems to ensure the best possible dissemination of alerts and warnings.
3. Incorporate social equity measures and ensure the ability to reach individuals with Access and Functional Needs (AFN) and those who are non-English speaking by identifying potential barriers and implementing mitigation strategies as required.
4. Coordinate and assist with the delivery of alerts and warnings across jurisdictional boundaries to ensure continuity of messaging.

2 PLANNING ASSUMPTIONS

The following planning assumptions have been used to develop this Annex. If these assumptions are not valid for a specific event or circumstance, it will be necessary to modify the operational concepts and assigned responsibilities defined herein:

- Some incidents occur with enough warning that notifications can be issued to ensure the appropriate level of preparation (e.g., winter weather and flood). Other incidents occur with little or no advanced warning, which does not provide enough time to adequately warn the public (e.g., earthquake and tornado).
- If an incident occurs suddenly, and the situation evolves rapidly, information may be incomplete or unconfirmed.
- As a hazard becomes known, choices will be made to select:
 - The best communications tools to use given the situation.
 - The appropriate message content.
 - The optimum format for each message.
 - The most effective times for releasing each message.
- Effective emergency messaging requires communicating the nature, extent, and expected impact of a hazardous incident as well as clear, concise, and decisive information concerning appropriate protective measures.
- The timely and coordinated use of public warnings can reduce the impact of hazardous incidents.

3 SITUATION OVERVIEW

Alert and Warning is a critical function of Emergency Management. The ability to communicate with the public is essential to the preservation of life and property. Currently, the field of Alert and Warning is in a state of rapid and significant evolution. Traditional methods of communication such as landline telephones, broadcast television and radio are in decline as U.S. residents shift to wireless broadband, social media, and online platforms for communications and news.

San Joaquin County utilized the Integrated Public Alert and Warning System (IPAWS), which is an Internet-based capability that Federal, State, local, tribal, and territorial alerting authorities can use to issue critical public alerts and warnings. Alerting authorities can use IPAWS and integrate local systems that use Common Alerting Protocol standards with the IPAWS infrastructure. IPAWS provides public safety officials with an effective way to alert and warn the public about serious emergencies using the EAS, WEA, the National Oceanic and Atmospheric Administration (NOAA) Weather Radio, and other public alerting systems from a single interface.

San Joaquin County utilizes multiple alert and warning systems. Each provides different capabilities and limitations.

SJReady Alerts (Everbridge)

Everbridge provides a geographically targetable alerting system that uses contact databases to send automated messages to phone, text, email, and TDD systems. The County uses purchased or donated contact databases which are augmented by user subscription. Limitations include:

- Databases must be updated periodically. The best practice assumption is that each month 1% of the database will become 'stale' as the population moves.
- Although cell capable, the bulk of contacts will be using land-line. Land-line is now very prone to disruption during power outages due to the use of electrically powered phones and the use of voice-over internet protocol (VoIP).
- The spread of telemarketers has caused many residents to not answer unless they recognize the number - meaning an inordinate number of the public will not pick up their phone and emergency messages will go to voicemail.

Wireless Emergency Alerts (WEA)

The WEA system can send a brief text message along with a unique tone to all operating WEA-enabled mobile devices in a specified area. However, WEA operates with the following limitations:

- Not all wireless carriers distribute WEA messages the same way. Testing and observation reveals that some carriers will not transmit messages unless their towers are within the designated alerting area.
- Wireless towers are vulnerable to disasters and power shutoffs and may not work.
- Device users may have disabled their alert capabilities, turned off audible notifications or may ignore incoming messages.
- Depending on the wireless carrier and/or the individual smart device, WEA may not be capable of sending full length messages or in Spanish.

Emergency Alert System (EAS)

EAS is a national public warning system that requires broadcasters, cable television systems, and wireless cable systems to provide the communications capability that state and local authorities may use to deliver important emergency information to the public. System limitations include:

- Televisions and most radio devices are unable to alert people who are not watching/listening to local media stations.
- Participation is voluntary, stations may opt to not re-transmit alert messages.
- Power disruption may interfere with transmission and reception.
- Significant portions of the population no longer use traditional radio or cable television in favor of social media and entertainment streaming services and may not receive the alert
- Currently, EAS activation procedures integrate regional media markets and therefore cover most of the Sacramento Area. EAS alerts can be expected to extend well beyond the intended targeted area.

National Oceanic and Atmospheric Administration (NOAA) Weather Radio (NWR)

Frequently used by the National Weather Service (NWS) and broadcast over most of the OA, an NWR alert can send an alarm and very limited information to radios tuned to NOAA radio frequency at 162.475. System limitations include:

- Requires having a working NWR device and set to the correct channel.

- Single point of failure with only one radio transmitter servicing most of the OA and currently without redundant capability.
- Many areas throughout the OA are situated in radio “shadows”, unable to receive alerts.
- Radio back-up battery systems have short duration in the event of a power failure.
- OA does not have independent alerting authority and activation requests may be denied by the NWS.

4 CONCEPT OF OPERATIONS

It is an inherent responsibility of local government organizations and officials to keep the public informed. Local government officials typically have the most accurate and timely understanding of the situation, necessary protective actions, and potential adverse impacts of the incident. It is incumbent upon local officials to rapidly and adequately communicate to the public what is occurring and any steps or actions the public needs to take.

4.1 ALERTING AUTHORITY

An Alerting Authority is a jurisdiction with the designated authority to alert and warn the public when there is an impending natural or human-made disaster, threat, or dangerous or missing person. Roles and responsibilities of an Alerting Authority differ among agencies. An Alert Originator is an individual person at the keyboard/screen composing and issuing the alert. The Alert Originator utilizes IPAWS in accordance with the Alerting Authority’s plans, policies and procedures to create and send out emergency messages.

Under the Standardized Emergency Management System (SEMS), alert and warning for a pending or actual incident/event is the responsibility of the Incident Commander (IC) or designee. The County is responsible for protecting the life and property of citizens within its jurisdiction. However, each city, special district, or the County has the responsibility to notify staff, employees, and citizens of an emergency that requires action. San Joaquin County OES is the only approved alerting authority for the Operational Area via the federal Integrated Public Alert and Warning System (IPAWS).

Alerting Originators are individuals who have been designated and trained to draft and distribute the alert and warning messages through the approved notification systems. OES has several staff trained in this process and one is always on duty.

4.2 ACTIVATION CRITERIA

Alerts may be issued any time there is an imminent threat to life and property. The types of systems used are influenced by the nature of the specific threat, the size of the area affected, and other factors. This may be a judgement call on the part of the Alerting Authority and if time permits, the Alert Authority should consult with the appropriate agencies and information resources to weigh factors that should be considered before launching an alert. Key criteria to be considered include:

- The potential impacts of the threat;
- Time of day;
- Required actions by the public;
- Time available for the public to react; and
- Environmental considerations that may magnify the effects of the incident (e.g. fuel loads or wind speed for fire, roads network for evacuation, etc.)

The above criteria notwithstanding, the Alerting Authority is to use best judgement and err on the side of caution. Issuing a false alarm with sufficient information to lead a reasonable person to conclude a threat exists is acceptable.

4.3 MESSAGE CONTENT

Multiple systems are available to disseminate alert and warning notifications to the public within the OA. Emergency information and action instructions are given to the public by various types of media. The Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), and other mass notification systems, as well as mobile loudspeakers/sirens and door-to-door, are mechanisms utilized in the OA. Jurisdictions within the OA use various social media platforms to distribute emergency information to the public.

Successful alert and warning messages have specific common components. However, circumstances may not allow for all components to be included. The Alert Originator may not have sufficient incident information or - in the case of WEA, NWR, and TDD - the systems limit the length of messages. OES utilizes the FEMA Message Design Dashboard for crafting messages for events that require time-sensitive warnings through IPAWS and SJReadyAlerts.

Messaging

- **Warnings:** A communication that encourages recipients to take immediate protective actions appropriate to some emergent hazard or threat. Below is the California Statewide Terminology:
 - **Evacuation Order:** Immediate threat to life. This is a lawful order to leave now. The area is lawfully closed to public access.
 - **Evacuation Warning:** Potential threat to life and/or property. Those who require additional time to evacuate, including individuals with access or functional needs, and those with pets and livestock, should leave now.
 - **Shelter in Place:** Go indoors. Shut and lock doors and windows. Prepare to self-sustain until further notice and/or contacted by emergency personnel for additional direction.
 - **Evacuation Order(s) Lifted:** The formal announcement of lifting evacuations in an area currently under evacuation.
 - **Hard Closure:** Closed to all traffic except Fire and Law Enforcement.
 - **Soft Closure:** Closed to all traffic except Fire, Law Enforcement, and critical Incident resources (i.e., utility, Caltrans, City/County Roads, etc., or those needed to repair or restore infrastructure).
 - **Resident-only Closure:** Soft closure with the additional allowance of residents and local government agencies assisting with response and recovery.
- **Alerts:** A communication designed to draw the attention of recipients to some previously unexpected or unknown condition or event.
- **Notification:** A communication intended to inform recipients of a situation or incident for which contingency plans are in place.

Content

There are five essential components of an emergency alert/warning message:

- **Source:** Who is the message from? (e.g. OES, Sheriff)

- **Threat/Event:** Describe the event and its impacts. (e.g. wildfire, flood, tsunami, hazardous material)
- **Location:** Use Zone or State the impact area boundaries in a way that can easily be understood.
- **Guidance for Protective Action:** Tell what protective action to take, when to do it, how to accomplish it, time to prepare, etc.
- **Time Available:** how much time is available to act? (e.g. immediately/now, or timeframe)
- **Future Source Information:** Always include SJReady.org or 211.

[Local, familiar, authoritative message source].

[Description of threat/event] in
[location of threat] [consequences].
[Protective action].

Message expires [time].

4.4 SYSTEM PRIORITIZATION

While use of warning systems is often thought of in terms of escalating incident severity, OES will prioritize use of warning systems in the following order to maximize the timeliness and scope of warning efforts:

1. Wireless Emergency Alerts (WEA): for use in short-notice incidents with a threat to life, health or property. WEA messages should be augmented with an SJReadyAlert and Nixle messages to provide additional coverage and detailed information.
2. SJReadyAlert: because of the additional time required to prepare an SJReadyAlert, these will ordinarily be issued following a WEA to provide additional coverage and detailed information. For incidents that provide a long lead time (e.g. flood or power shutoffs), SJReadyAlert should be the primary means of alerting.
3. NOAA Weather Radio (NWR): Alerts should be sent at the same time as a WEA, SJReadyAlert and/or EAS message. The NWR should target challenging service areas, areas impacted by loss of power, as well as the deaf and hard of hearing community. Note: NWR messages may be vetoed for dissemination by the NWS.
4. Emergency Alert System (EAS): EAS messages go out to a majority of the Sacramento Area and cannot be limited to the County, EAS should be limited to incidents that pose a threat to life, health or property over a significant area.
5. Nixle: primarily a public information tool for public safety agencies and local governments, Nixle can be used to reinforce and extend emergency warnings.

6. Social media (ex. Facebook, Twitter, and Nextdoor): These social media networks should be used aggressively and near-simultaneously, if possible, with WEA/SJReadyAlert/NWR. These networks are “passive” in that they don’t activate devices or use an alarm tone - they should be used only after the primary warning systems are activated. Additionally, messaging should be consistent as possible across the platforms.
7. San Joaquin County 2-1-1: Its purpose is to make it easy for people to find the help they need when they need it. They have databases of agencies that offer programs and services within the county. Resources may be found by accessing their webpage at www.211sj.org or by dialing 2-1-1. Call specialists are available 24/7; 365 days a year and can provide information in 170 languages. When events in the county require information to be shared with the community or to field questions from the community, often, SJ211 is called upon to assist. They are provided with fact sheets and information to help citizens get the answers they seek.

4.5 ALERT AND WARNING STRATEGIES

Effective emergency alerting requires a strategic approach to ensure timely, widespread, and accessible warnings. Ensuring accessibility for individuals with disabilities and those with functional needs is essential, utilizing diverse technologies and communication methods. Multiple alerting systems should be employed to maximize reach, as no single system is failproof. While broad alerting is necessary, overuse of warnings can lead to public fatigue, so efforts should focus on targeting those at immediate risk.

1. Simultaneously provide a fully interpreted Spanish language version of the message.
2. Verify transmission and receipt of alerts. Successful use of many alert and warning platforms may not result in successful public alerting. If the computer systems or transmission systems fail, the Alert Originator may falsely believe they have succeeded in issuing an alert, when in fact the alert has failed to reach the public.
 - a. Where possible, the Alert Originator should contact known individuals in the alert area to confirm the alert has successfully launched. This could be the Incident Commander or other responders.
 - b. Review the system launch records to ensure that the FEMA message exchange has successfully received and relayed the message.
 - c. Do not assume automatic successful dissemination of alerts.
3. Speed is essential in no-notice or fast-moving incidents. An alert that is incomplete or is not fully verified, while not optimal, is better than a completely accurate alert sent after it is no longer relevant.
4. Include Access and Functional Need (AFN) capabilities. Use every available method of alerting to ensure that persons with disabilities or other AFN get alerts with sufficient time to respond. Ensure that the needs of persons living below the poverty line and/or who may be homeless are considered in the type of alert utilized. As technologies become available, proactively incorporate them to aid in alerting and warning.
5. Be aware that all systems may fail or not fully perform. Do not rely on any single system. Alert Originators should not hesitate to use any and all available systems if the situation warrants.
6. Irrelevant warnings can fatigue the public rapidly and lead to recipients discounting further warning messages. Every effort should be made to limit warning deliveries to only those at immediate risk.

7. People rarely act on a single warning message alone. To be effective, warnings should be delivered in various formats via various media, both to increase reliability of warning delivery and to provide a sense of corroboration that will encourage recipients to take protective actions.

5 ROLES AND RESPONSIBILITIES

Specific roles and responsibilities for alert & warning are assigned to stakeholder organizations as follows:

5.1 COUNTY AGENCIES

San Joaquin County Office of Emergency Services

- Manage County Alert & Warning Program and maintain warning systems including SJReadyAlert, WEA, EAS, and NWR.
- Alert Originator for SJReadyAlert, WEA, EAS, and NWR messages.
- Primary responsibility to train and test Alert Authorities and Originators in SJReadyAlert, WEA, EAS, and NWR.
- Coordinate Alert and Warning preparedness and response efforts throughout the OA.
- Upon activation, act as the primary Alert Authority for the Op Area.
- With the PIO, or in conjunction with the JIC, assist in the coordination of Alerts across the Op Area.
- Conduct After Action analysis of emergency alerts, as needed.
- Proponent for research and development of alert and warning systems.
- Primary liaison to state and federal agencies for alert and warning coordination.

San Joaquin County Sheriff's Department

- System activator for Sheriff's Office Nixle messages.
- Approved alert requestor.

5.2 CITIES/FIRE/LAW ENFORCEMENT

- Law Enforcement has primary authority for evacuations.
- If serving as Incident Commander, determine if an alert or warning message is required to protect public safety.
- Contact OES Duty Officer as soon as possible when an alert or warning message may be required.
- Provide situational awareness to OES.

6 ADMINISTRATION, FINANCE, LOGISTICS

Resources, as a general term, encompasses the personnel, equipment, systems, supplies, and highly specialized services that may be needed for implementation.

- The primary agency representative will have information readily available regarding the categories or types of resources relevant to operations to facilitate requesting additional resources.
- In all cases, the primary agency will provide continuing representation in the EOC.

Primary Agency requesting assistance will be responsible for the process of procurement authorization established by ESF-07 Resources.

7 AUTHORITIES AND REFERENCES

The authorities and references documented in the basic plan of the San Joaquin County EOP are considered applicable to this Support Annex; in addition, the following are also applicable to this function:

- State of California Alert & Warning Guidelines, May 2024
- Guide to Implementing Integrated Public Alert and Warning System (IPAWS) Version 2, February 2019
- IPAWS Best Practices, FEMA, June 2023
- [IPAWS EAS, WEA, and NWEM Alert Standardizations Checklists](#)
- [IPAWS Tips | FEMA.gov](#)

ATTACHMENT B – MESSAGE GUIDANCE

WEA and EAS messages will conform to the standardized format as set forth by the Federal Government. The Duty Officer will utilize the FEMA Message Design Dashboard to help craft messages. (<https://atp.aws.fema.gov/mdd/>)

Message Content	Description
Source	Use local, familiar, trusted sources. Spell it out completely (no acronyms).
Hazard	Provide the name of the hazard for which the warning is being sent. Be as specific as you are able to be about the type of threat affecting the population.
Hazard Impact	Describes the impacts that may occur as a result of the threat and the reasons that a person should take protective action.
Location	Use familiar landmarks and known physical boundaries in addition to city/county names. In some cases, location includes where people should go as well as the areas affected.
Protective Action Guidance	Tell people what they can do to protect themselves. Be specific and instructive about how to take action. Also, tell them when actions need to be taken.
Expiration Time	Most warnings will not include an expiration time, but some will. If you do not include an expiration time, tell people where to get more information about the hazard and how they will learn that conditions are safe.

90 Character Message Format: [Local authoritative source] [description of threat] in [location of hazard and consequences] [link or tinyurl for additional information]

Example: SJC OES. Leave area NOW. Wildfire in this area. Check SJReady.org for more information.

360 Character Message Format: [Local authoritative source] [description of threat] in [location of hazard and consequences]. [Protective action] by [action time] [link or tinyurl for additional information].

Example: San Joaquin County Office of Emergency Services WILDFIRE Evacuation Order, Mandatory Evacuation in Zone(s) 0000, 0000, 0000. Visibility in area will be reduced, and roads/evacuation routes can become blocked; if you do not leave now, you could be trapped, injured, or killed. CHECK SJReady.org for updates/information.

Many mobile phones in use today support WEA messages of up to 360 characters. FEMA encourages AAs to use the longer message space to provide more complete information, and to include a web address if more detailed and/or visual content will assist the public to take appropriate action. A basic 90-character message requirement, in addition to the optional 360-character message, is in place for the foreseeable future as wireless carrier's complete modernization of their networks.

OES will establish proper protocol with local jurisdictions prior to submitting a WEA / EAS. This includes reviewing criteria applicable to local threats and hazards in accordance with local emergency plans, policies, and procedures:

- Does a situation require the public to take immediate action to avoid or mitigate damage to life and property?
- Is there a high degree of probability a situation will occur, and you need to warn the public quickly?
- Is there a missing and endangered person that the public should be aware of?
- Does the public need to be notified of a public safety situation, such as 911 outage, boil water advisory, or ongoing response or recovery resources?
- Does the event demand immediate notification, regardless of time of day, or can it wait?

IPAWS supports both English and Spanish content. English is required, while Spanish is optional.

WEA example message templates (90 character):

Active Shooter:

- SJC OES, Per Lodi PD Shelter in place NOW. Active shooter in this area. www.SJReady.org

Civil Disturbance:

- SJC OES, check local media, Civil Disturbance in this area. www.SJReady.org

Hazardous Material Release:

- SJC OES, Shelter in place. Hazardous material release in this area. Check www.SJReady.org

Dam/Levee Failure:

- SJC OES, check local media, Levee failure imminent in this area. Check www.SJReady.org

9-1-1 Telecom Outage:

- SJC OES, 9-1-1 outage in this area. If emergency, call ###-###-####. www.SJReady.org