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Emergency Management Homeland Security Division

Michigan Department of State Police

Michigan Alerts, Warnings, and Notifications Plan

Prepared by the: Emergency Management and Homeland Security Division

Michigan Department of State Police

Contents

Record of Revisions

Each revision or correction to this plan must be recorded. The record contains the date, location, and a brief description of the change, as well as who requested or made the change.

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Purpose

The Michigan Alerts, Warnings, and Notifications Plan (MI AWNP) is a support document to the Michigan Emergency Management Plan (MEMP) Emergency Support Function 2 which provides guidance to the Michigan State Police (MSP) alerting authorities (AA) when issuing alerts, warnings, and notifications (AWN) through the Michigan's (MI) AWN system. The MI AWN system includes tools the MSP can use to reach different segments of the population, depending on the scope and scale of the emergency. The MI AWN system includes:

- Emergency Alert System (EAS) and Wireless Emergency Alerts (WEA) messaging via the Federal Emergency Management Agency's (FEMA) Integrated Public Alert and Warning System (IPAWS).

- A mass notification tool capable of notifying State Emergency Operations Center (SEOC) responders and other key warning officials via a wide array of communications modalities including text message, email, and voice call.

- The National Warning System (NAWAS) is used by FEMA to disseminate alerts, warning announcements, and information efficiently and effectively to state, local, tribal, and territorial authorities and promote a coordinated response during emergency situations.

The MI AWNP is designed to ensure the MSP AA issue timely and effective messages in response to life-threatening situations to the public. The MI AWNP also outlines high-level expectations for all IPAWS AA within the state.

Effective use of alerting systems increases public responsiveness, reduces corrective action, and improves public trust in alerting systems and the information communicated via those systems in response to potential threats. By delivering timely, accurate, and accessible alerts, these systems enhance life safety by enabling individuals and communities to take protective actions more quickly and make informed decisions, reducing risk of injury or loss of life during emergencies.

Scope

The MI AWNP applies to AA who use the MI AWN system to issue AWN to SEOC responders or the public.

Situation Overview

A public alert is a communication intended to alert the public and direct their attention to an immediate, occurring risk or hazard. Public alerts are issued at the beginning of and during incidents with an ongoing, immediate threat. Alerts may also include instructions for potential protective actions and provide ongoing communications relevant to an event. The measure of an effective alert message is the extent to which the intended audience becomes attentive and seeks further information.

A public warning is a communication intended to notify the public of an imminent event and to persuade recipients to take one or more protective actions to reduce losses or harm. The measure of an effective public warning message is the extent to which the intended audience receives the message and takes protective action and/or heeds the guidance.

Notifications include public and internal notifications. Public notifications/advisories are not to be used for promoting public or private events.

- Public notifications/advisories can include protective actions, evacuation routes, boil water advisories, traffic advisories, and return from evacuation notices.

- Internal notifications/advisories provide communications and information as defined by the agency.

It is important to understand the applicability of each when deciding to inform the public of potential threats due to any of the natural and human-caused hazards outlined in the Michigan Hazard Analysis. As shown below in Table 1, the type, timeframe, and purpose for different information services is described.

Table 1: AWN Prior to, During, and After an Incident[1]

Type	Timeframe	Purpose	Examples
Warnings	Prior to incidents	Distribute guidance to prepare for an anticipated incident	Weather watches/warnings, fire warnings, volcano warnings, evacuation orders
Alerts	At the beginning and during incidents with an ongoing, immediate threat	Gain the attention of the public and draw their attention to a risk or hazard	Active shooter and other civil dangers, hazardous materials concerns, 911 outage, America's Missing: Broadcast Emergency Response (AMBER) alerts
Notifications	During and after immediate threats	Instruct immediate protective actions and provide ongoing communications relevant to an event to reduce milling and encourage public action. Convey time-sensitive information on response and recovery-related services	Protection actions, evacuation routes, boil water advisories, return from evacuation notices, area accessibility updates, all-clear notices

[1]Cybersecurity and Infrastructure Security Agency (CISA) SAFECOM/National Council of Statewide Interoperability Coordinators (NCSWIC), Essentials of Alerts, Warnings, and Notifications, April 2020.

Planning Assumptions

1. There may not always be sufficient time to notify the public prior to an emergency, but MI AA will make every effort to provide emergency alerts and warnings as expeditiously as possible.

2. An AWN to the public is the responsibility of the local AA, with some exceptions for AMBER, Blue, and statewide alerts which are the responsibility of the MSP, as outlined in the EAS Plan for the State of Michigan.

3. Communications infrastructure could be damaged, causing disruption in landline telephone, cellular telephone, radio, microwave, computer, and other communication services. Re-establishment of communications infrastructure is critical.

4. The MI AWNP is meant to function as a coordination tool when distributing AWN to the public is necessary and is not necessary for on-going crisis messaging. However, many of the same tools will be used to distribute warnings and notifications after the initial onset of an incident.

5. Detailed information regarding an incident may not be available at the onset of an emergency or disaster or during a disaster depending on the nature of the incident. As more information becomes available, updates will be distributed as needed.

6. Power outages, damage to infrastructure, and cybersecurity breaches could all affect the ability of communication systems to transmit messages to the public.

7. The AWN tools and guidelines outlined within the MI AWNP are also applicable to any AWN actions outlined within the Michigan Continuity of Government Plan, the MSP Emergency Management and Homeland Security Division (EMHSD) Continuity of Operations Plan, the MEMP, and the MEMP Recovery Support Plan.

Concept of Operations

The IPAWS is a tool used by Federal, State, Local, Tribal, and Territorial (FSLTT) public safety agencies to notify the public of disasters and deliver emergency and public safety information. The IPAWS is a key factor in disseminating multiple alerts and warnings in a timely manner. The IPAWS alert pathways include[2]:

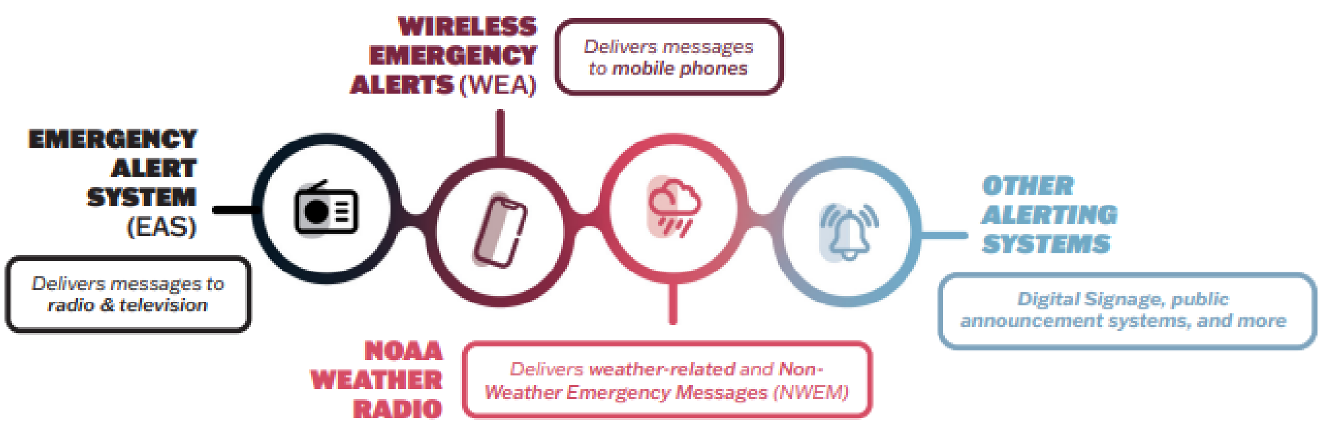

Figure 1: IPAWS Alert Pathways

[2] FEMA IPAWS 101 https://www.fema.gov/sites/default/files/documents/fema_ipaws_101-slicksheet_042024.pdf

Some of the benefits of the IPAWS include the public does not need to sign up or subscribe to receive alerts, and there is no cost to receive them. The public includes those residing, visiting, or working within the state. With the IPAWS, AA can target specific geographic areas to ensure only those in the affected area, including visitors, receive the alert. The content and timing of alerts is at the discretion of the AA.

By sending alerts and warnings through the IPAWS, allowing multiple alerting pathways to be triggered at one time increases the probability that the largest percentage of the public, including vulnerable populations, will receive the warning message. Vulnerable populations are individuals who may need additional assistance to act in an emergency and can include, but are not limited to non-English speaking individuals, people with disabilities, older (65+) individuals, chronically homeless, individuals with limited financial resources, and those living in congregate care settings. The WEA recipients can currently choose to display alerts in English or Spanish, and EAS messages can include multilingual audio. The IPAWS also allows for the integration of images and has a text-to-speech capability to accommodate those with functional needs. Additional enhancements with the IPAWS to accommodate those with functional needs or are non-English speaking are forthcoming.

The MSP has an IPAWS compliant software as a primary method of sending an AWN. The MSP also has an alternative system to send an AWN via the IPAWS if the primary system is down. An additional EAS tool with satellite backup has been implemented statewide at all local primary stations. All forementioned tools are web-based and may be accessed from a variety of devices with internet connection. The MSP may also contact the FEMA IPAWS office to request it alert certain Michigan jurisdictions on behalf of the MSP. See the Alerting on Behalf section for additional information. The MSP may also reach out to the State Primary EAS station at WKAR to have it broadcast an EAS message if the IPAWS were down.

Criteria for IPAWS AWN Use – Wireless Emergency Alerts

The IPAWS AWN should be used only for life-threatening emergencies. Activation of the IPAWS AWN at the state level will only be initiated if the following criteria are met:

1. An emergency or disaster occurs within a large area of the state which requires immediate response to save lives or protect property, the environment, and public health.

2. An emergency or disaster situation occurs within a jurisdiction requiring the AA to immediately respond to save lives or protect property, the environment, and public health and it is unable to send the alert due to unforeseen circumstances. The local AA should first attempt to engage an established cross-border Memorandum of Understanding (MOU) with a neighboring jurisdiction to issue the alert. If unsuccessful, the AA may escalate the request to the MSP to issue the alert.

3. The MSP will not initiate an IPAWS message for a single local jurisdiction without a discussion and the permission of the AA of that jurisdiction.

4. The incident requiring an IPAWS activation must affect a large area of the political jurisdiction, making it impractical to warn affected residents using other means, such as mobile public address announcements, door-to-door notifications, etc.

5. Approval for dissemination of a WEA must come from the Governor, Lieutenant Governor, or Deputy State Director of Emergency Management.

If the above criteria are met and a WEA is going to be issued, two event handling codes are available to select.

Imminent Threat Alert

An Imminent Threat Alert is issued when an imminent threat to life or property exists. The following Urgency, Severity, and Certainty levels must be selected in the MSP IPAWS software platform:

1. The Urgency level of imminent threats must be either Immediate (responsive action should be taken immediately) or Expected (responsive action should be taken soon, within the next hour).

2. The Severity level must be either Extreme (an extraordinary threat to life or property) or Severe (a significant threat to life or property).

3. The Certainty level must be either Observed (determined to have occurred or to be ongoing) or Likely (has a probability of greater than 50 percent).

When the Imminent Threat handling code is selected generally the cell phone silencing settings are overridden. The MSP will issue an AWN using the Imminent Threat handling code when an imminent threat to life or property exists. The National Weather Service (NWS) will issue an AWN using the imminent threat handling code for natural hazards.

Public Safety Alert

A Public Safety Alert is issued for public safety situations (e.g. boil water, 911 telephone outage, etc.). The Public Safety handling code generally honors the user’s quiet phone settings if they are engaged. It is not intended for life-threatening incidents where immediate action is necessary. However, it must be understood that a public safety situation may escalate to Imminent Threat and officials must monitor the situation and update messaging as necessary.

When constructing a WEA, the MSP AA will include both a 360-character and a 90-character message. The AA will focus on the 360-character message first and then craft the 90-character message from key information contained in the longer message. Whenever possible, a website should be included to obtain more information about the incident. The web address should be shortened using a shortener tool.

Criteria for IPAWS AWN Use – Emergency Alert System

If there is a need to deliver important public safety information countywide via television, radio, and cable, the AA may select to create and send an EAS message. If a large portion of the impacted area is without cellular coverage, then including an EAS and/or Non-Weather Emergency Message (NWEM) pathway would increase the likelihood of the public receiving the message. Refer to the EAS Plan for the State of Michigan for more information on EAS event codes to address the various hazards outlined in the Michigan Hazard Analysis as well as the parameters of an EAS message. Criteria and guidelines for a new Missing and Endangered Persons code are included in Appendix A.

Sometimes, a WEA message and information through the IPAWS feed will be enough communications diffusion.

Criteria for IPAWS AWN Use – Non-Weather Emergency Message

If there is a need to deliver important public safety information in areas potentially experiencing cellular outages or having insufficient cellular coverage, the AA may select to send an NWEM over the NWS weather radio system. Refer to the EAS Plan for the State of Michigan for more information on the NWEM.

Criteria for Social Media Use

Any AWN sent state or region wide by MSP should be reviewed by and coordinated with an MSP/EMHSD Public Information Officer (PIO). The MSP/EMHSD PIO may amplify the message by posting it on various social media platforms available to the MSP. The MSP/EMHSD PIO should also post follow-up messages as the event progresses and changes.

Criteria for News Releases

The MSP/EMHSD PIO may send out news releases and fact sheets with hazard warnings and information for the public to take protective actions based on the emergency or disaster directly to media outlets across the state. Depending on the scope of the emergency, these documents may be translated into various languages to reach the residents in the targeted areas. The Michigan Disaster Public Information Plan (MI-DPIP) further outlines the emergency public information approach to provide communications to educate, inform, protect, and warn residents and visitors throughout Michigan during the response and short-term recovery phases of a disaster.

Criteria for Mass Notification Use

The MSP/EMHSD uses a mass notification software to notify key decision makers and emergency personnel when the SEOC is being activated. They receive the alerts quickly and redundantly via phone, text, and email. The tool can also be used to alert state department directors and deputy directors as well as state level PIOs during an incident. Contact information for key decision makers as well as SEOC and Joint Information Center emergency personnel is collected by the MSP/EMHSD and stored in the mass notification software as well as in a local spreadsheet. If the mass notification system were to become inaccessible due to a software or network outage, the notifications could be made manually via email and/or phone call.

Criteria for National Warning System Use

The NAWAS is one part of a broader suite of alert and warning systems designed to rapidly disseminate threat information throughout the government and to the public. The NAWAS provides redundant AWN and communications pathways to various primary systems including IPAWS, telephone, and email. The NAWAS is a 24-hour continuous private line telephone system used to convey warnings to FSLTT government and public safety officials. The NAWAS enables the coordination of warning information between emergency management officials at all levels of government allowing them to take appropriate actions to warn, prepare, and protect their citizens of impending threats from terrorist actions, as well as natural and technological disasters. The NAWAS can also facilitate communication and coordination among FSLTT agencies involved in emergency management and response, ensuring a streamlined and efficient exchange of critical information. Lastly, the NAWAS supports the continuous operation of governmental functions during and after emergencies by providing a reliable communication network between key decision-makers and emergency responders.

The State Warning Point (SWP) for Michigan is located at the MSP Headquarters building and is managed and maintained by the MSP Intelligence Operations Division (IOD). Once the SWP receives information from the Federal government via the NAWAS, it can relay the information to the Primary Warning Points throughout the state in the most appropriate way possible for the situation including the NAWAS, the Law Enforcement Information Network (LEIN), radio, phone, email, or the IPAWS.

Refer to the following procedures and policies for more information on the NAWAS:

1. MSP's Procedure Manual 09-01: National Warning System and Dissemination of Attack Warnings.

2. National Warning System (NAWAS) Policy Guide, 2024

3. National Warning System (NAWAS) Standard Operating Procedures, 2024

PACE and Potential Operating Environments

Maintaining operability and continuity of AWN and communications is critical for emergency personnel during special events and emergency response in all operating conditions. A Primary, Alternate, Contingency, Emergency (PACE) communications plan is a vital tool for the MSP to establish options for redundant communications pathways in a variety of potential operating environments. A potential operating environment challenges the program's ability to utilize its system(s) to communicate, notify, and warn its stakeholders, key decision-makers, and the public. The MSP PACE plan for communication, notification, and warning systems is outlined in Appendix B.

Roles and Responsibilities

State Alerting Authority – Michigan State Police

Emergency Management and Homeland Security Division

The state AA is the MSP. The State IPAWS Administrator is housed within the MSP/EMHSD and is responsible for reviewing and approving local Collaborative Operating Group (COG) Applications to become an IPAWS AA with the FEMA. The State IPAWS Administrator also works with the FEMA to ensure local AAs within the state maintain their IPAWS credentials. The MSP/EMHSD also establishes the challenge codes Michigan AAs used during the Alert

Escalation Process (AEP) when they request the MSP or NWS to provide backup alerting capabilities. The MSP/EMHSD alert originators would be responsible for issuing IPAWS alerts for situations when large geographic areas of the state are affected and the messages have been requested and approved by the Governor when the SEOC has been activated. The MSP/EMHSD maintains the IPAWS Memorandum of Agreement (MOA) with FEMA as well as all relevant information for the MSP within the FEMA IPAWS Portal. Responsibilities of public alerting within the MSP are outlined in the division policy EMHSD-19 Public Alerting – Emergency Alert System (EAS) and Wireless Emergency Alerts (WEA) Use.

The MSP/EMHSD is also responsible for sending notifications to division staff and SEOC responders to activate the SEOC during a disaster. The notifications are sent as an email, phone call, and/or text message to each recipient simultaneously. Emergent notifications may also be sent to department directors, deputy directors, and state agency PIOs as needed via the same notification system.

Additionally, as the state alerting authority, the MSP/EMHSD co-chairs the Public Alerting Work Group under the Michigan Public Safety Communications Interoperability Board (MPSCIB).

Intelligence Operations Division

The MSP IOD is responsible for issuing all of Michigan's AMBER and Blue alerts at the request of local law enforcement agencies. Information about the various types of alerts the MSP IOD would issue can be found at https://www.michigan.gov/msp/services/alerts. The IOD is also a 24/7 point of contact within the state to provide backup alerting capabilities to local AAs if they are unable to access their primary alerting tool. The AEP is referenced in the MSP/EMHSD Policy 19, the EAS Plan for the State of Michigan, as well as the alert escalation section of this plan.

The MSP IOD also manages the SWP for NAWAS in Michigan as outlined in the MSP Procedure Manual 09-01 National Warning System and Dissemination of Attack Warnings. The SWP must be prepared to receive and disseminate information from the National Warning Center to the various warning points throughout Michigan. They are also responsible for conducting daily tests of the system.

Local Alerting Authorities

County government officials are responsible for issuing timely and effective AWN messages in response to threats to public safety within their geographic boundary. County government officials may delegate any or all its public alerting authority to a Michigan Public Act 390 of 1976 defined emergency management program or Public Safety Answering Point (PSAP) within their geographic boundaries. Local AAs may use a variety of tools to issue AWN messages including, but not limited to EAS, WEA, sirens, social media, opt-in notification platforms, and messaging boards. The most efficient and effective way to quickly send EAS and WEA messages is through the IPAWS. Local AAs should complete the steps outlined on the FEMA's IPAWS website to gain permissions to the IPAWS network.

Sub-county Public Act 390 emergency management programs such as larger cities and townships, or public colleges or universities with a combined average population of faculty, students, and staff of 25,000 or more, may also become an IPAWS AA with permissions limited to issuing WEAs. They must have a written agreement with the county they are in allowing them to only have access to issue WEA messages within their sub-county geographic boundary in addition to all the requirements set forth by the FEMA.

Since all disasters and emergencies are locally oriented, it is an inherent responsibility of local officials to keep the public informed of what actions they need to take to protect themselves and their families. To successfully accomplish the task, local jurisdictions must have a structure in place to provide for rapid alerts and warnings. Many of the below items are the best practices outlined in the CISA SAFECOM Interoperability Continuum. The AAs are responsible for:

- Operating an IPAWS-accessible software tool for the dissemination of messaging related to local emergencies.

- Developing a standard operating procedure and policy identifying alert originating points of contact, as well as emergency notification processes and procedures for initiating, cancelling, and rescinding accidental alerts, and for rapidly correcting and updating alert details as additional information becomes available.

- Identifying trigger points for emergency alerts.

- Drafting alert templates for commonly encountered emergencies employing best practices from the FEMA's Alerting Authority Assistive Tool Platform which houses the Message Design Dashboard (MDD). There are some pre-defined message templates available in Appendix C.

- Ensuring alert originators are properly trained on how and when to utilize the system.

- Developing message approval processes.

- Outlining an AEP in case the primary alerting tools fail. Consider entering into a cross-border agreement with neighboring jurisdictions to provide backup alerting for one another and/or seamlessly alert the public in jurisdictional border areas.

- Understanding how limited telecommunications infrastructure and network congestion may affect alerts and warnings in the community.

- Understanding the access and functional needs (AFN) related considerations associated with public alert and warning systems and messaging in their jurisdiction. To fully understand these considerations, jurisdictions should:

    - Have systems in place to identify the strengths and needs of AFN communities.

    - Develop plans to build strengths while addressing identified needs.

- Participating in revisions of the Federal Communications Commission (FCC) mandated local EAS plans, including review of authorized event codes.

- Coordinating with adjoining jurisdictions, and the State regarding origination of alerts and warnings related to hazards which cross jurisdictional boundaries.

- Maintaining security and authorized access to their systems.

Federal Communications Commission

The FCC establishes the technical and operational requirements for EAS and WEA including technical standards, procedures, and testing protocols for EAS and WEA participants. The FCC does not create or transmit EAS alerts. The FEMA is responsible for any national-level activation, tests, and exercises of the EAS. Participation by wireless providers to transmit WEAs is voluntary, but those offering the service must adhere to the technical and operational requirements established by the FCC. Regulations for the use of the EAS are governed by the FCC, as identified in 47 C.F.R Part 11 and for the WEA within 47 C.F.R. Part 10.

The FEMA, the FCC, and the National Oceanic and Atmospheric Administration's (NOAA) NWS work collaboratively to maintain WEAs and the EAS, which are the two main components of the national system for alerts and warnings.

Federal Emergency Management Agency

The FEMA maintains and operates the IPAWS. The IPAWS is the FEMA's national system for local alerting providing authenticated emergency and life-saving information to the public through mobile phones using WEAs, to radio and television via the EAS, and on the NOAA's Weather Radio (NWR). The IPAWS was established under Executive Order 13407. The IPAWS provides the capability to quickly notify the public of impending natural and human-made disasters, emergencies, and public safety information to save lives and protect property. In a national emergency, the President may use the IPAWS to communicate to the public as well.

The FEMA maintains the IPAWS general inbox available for customer support issues at ipaws@fema.dhs.gov.

The IPAWS Technical Support Services Facility (TSSF) is staffed 24/7 with subject-matter experts experienced in emergency management, public safety communications, public works, and broadcasting, who assist AAs with IPAWS needs and training. The IPAWS TSSF 24/7 contact information is 1-844-729-7522 and fema-ipaws-lab@fema.dhs.gov.

National Weather Service

The NWS will issue Weather Watches and Warnings activating the EAS via the NOAA data system and the NWR. The NWS will issue WEA messages for tornados, severe thunderstorms when the damage threat is destructive, flash flood when the damage threat is considerable or catastrophic, extreme wind, or snow squalls. The NWS may also transmit NWEMs it receives if the AA is authorized by the FEMA to send to the NWEM channel within their alert originating software. For NWR dissemination, the NWS staff reviews the alert prior to broadcast and may edit it to improve the text to speech conversion and system formatting requirements.

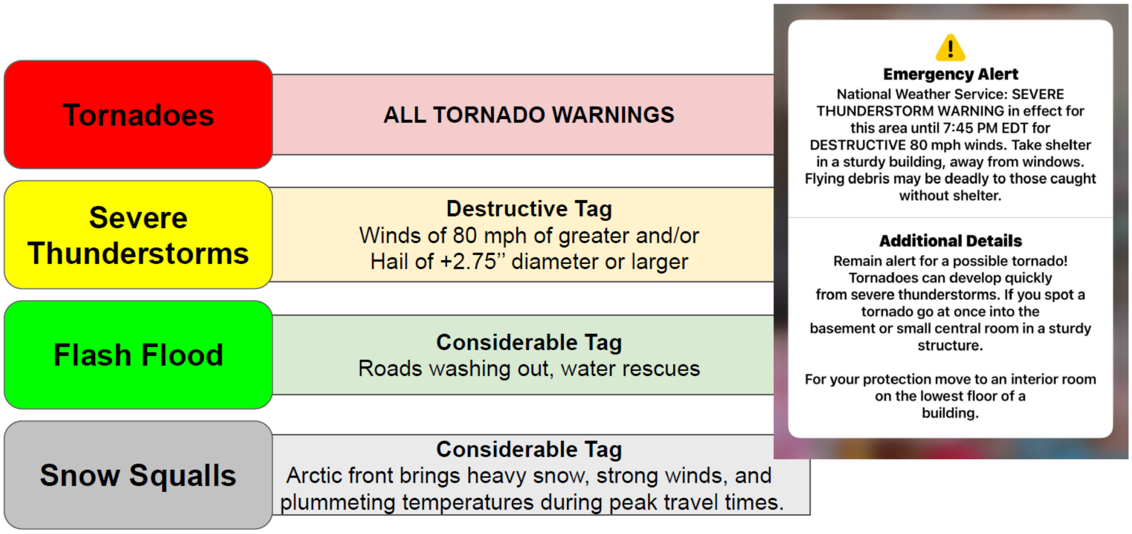

Figure 2: Damage Threat Tags When NWS Warnings Alert WEA Automatically

Broadcasters

All broadcasters and subject cable operators are required to participate in the national-level EAS. All stations and cable systems will carry national messages and will continue on the air for additional messages from the federal or state level. Participation in local and state EAS message relaying is voluntary and is encouraged for all broadcasters and cable operators. Broadcast stations and cable operators electing to participate in EAS must follow the procedures found in the EAS Plan for the State of Michigan.

Public Alerting Work Group

The Public Alerting Work Group serves as subject-matter experts to the MPSCIB regarding matters of alerting the public during emergencies and disasters. The work group provides, promotes, and coordinates public alerting awareness and education in support of local and state government agencies in conjunction with broadcast partners. More information regarding the work group can be found at www.michigan.gov/publicalerting.

State and Local Emergency Communications Committees

The State Emergency Communications Committee (SECC) and 14 Local Emergency Communications Committees (LECC) are responsible for developing and finalizing EAS plans for their respective areas. These committees provide state and local leadership for EAS operations in Michigan. Additional information on the committee's scope and membership is outlined in the EAS Plan for the State of Michigan. The SECC is also responsible for submitting information about the EAS in Michigan to the FCC.

IPAWS AWN Best Practices

Evidence-Based Principles for an Effective AWN Program

- Utilization of alerting mechanisms within the IPAWS should be a primary route to issue emergency alerts and warnings to ensure the greatest number of recipients within the impacted area are alerted.

- The responsibility for issuing alerts, and warnings during an emergency rest with designated public officials at the county/state/tribal level. It is the choice of the public officials to determine who authorizes the issuance of alerts and/or warnings. It may differ from jurisdiction to jurisdiction.

- Unless otherwise notified, county emergency management agencies are generally considered to be the primary alerting authority for their jurisdiction. In some instances, the central dispatch agency is the primary alerting authority. Best practice is a partnership between the two agencies to manage an effective AWN program.

- Incomplete or imperfect information is not a valid reason to delay or avoid issuing a warning. Time is of the essence, as recipients of warnings will need time to consider, plan, and act after they receive a warning message. This is particularly true among individuals with disabilities and people with AFN. They may require additional time to evacuate or may be at increased risk of harm without notification.

- Use of large-scale, wide ranging public warning systems are usually restricted to county level AAs. Operational areas should ensure all local jurisdictions (cities, special districts and, when appropriate, private sector critical infrastructure) have the capability and a method to request the coordination and use of large-scale, wide ranging public warning systems when appropriate. When imminent danger threatens, all agencies can, and should, issue a warning to people with whom they have authority and responsibility to inform, using whatever means are at their agency's disposal.

- Messages should come from an authoritative source and clearly identify the originating agency. Messages originating from an anonymous or unfamiliar source will be treated with skepticism by the public.

- Warning messages can, and should, be updated and refined as additional information becomes available. Additionally, when the threat or warning messages are no longer applicable, a message stating it no longer applies should be sent.

- Warning messages sent in error should be updated, clarified, or retracted within ten minutes from the message being confirmed as being erroneous.

Cross-border Memorandum of Understanding

The AAs should develop relationships with other neighboring AAs to share permissions for back-up AWN. These pre-disaster arrangements will enable AAs to alert on behalf of other jurisdictions that are unable to issue an AWN.

To alert across borders, two or more AAs must enter into an MOU outlining permissions and procedures for alerting on each other's behalf. The MOU must be signed by each of the jurisdiction's executives. Once completed, the MOU must be sent to the State AA for confirmation and then uploaded into the FEMA IPAWS User Portal. A new Public Alerting Application must be created in the FEMA IPAWS User Portal outlining the updated permissions for the newly covered jurisdiction(s).

Cross-border alerting procedures should be developed and exercised on a regular basis with all parties.

Alert Escalation Process

On occasion, an AA may be unable to issue an AWN. Implementation of an AEP with local agencies, and the MSP can solve this problem before it occurs in an actual event. Michigan local AAs should first work out a procedure for an AEP with trusted neighboring jurisdictions through the MOA process outlined above.

If the process must then be escalated to the state level, the AA in need of sending out an alert must contact the MSP 24/7 contact at 517-241-8000 and provide the correct monthly verbal challenge code to authorize them as an official AA. The verbal challenge codes can be found in the Michigan Critical Incident Management System File Library when logged in with the EAS position. The local AA must also provide the MSP with well-written messages (EAS, WEA-360 characters, WEA-90 characters, NWEM) and associated event code to send the alert. The local AA will join the MSP on a virtual meeting to send the alert together through the MSP IPAWS software.

If the State AA is unable to send out the alert on behalf of the local AA, the MSP will contact the FEMA IPAWS office on their behalf via a conference call with all parties. To ensure the security and authenticity of these requests, the State AA contacting the FEMA will be required to verify their identity using their Unique Authentication Number (UAN). The UAN process helps prevent unauthorized requests and ensures the legitimacy of alerts issued through the FEMA.

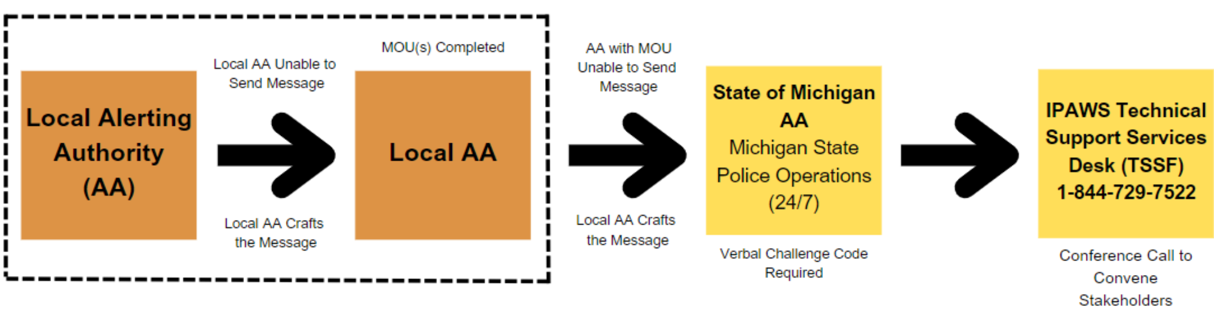

Figure 3: Michigan Alert Escalation Process (AEP)

The AEP can be practiced, trained, and exercised with the FEMA TSSF to evaluate processes. The MSP shall exercise the AEP with at least one local AA on an annual basis.

Message Design Dashboard

The ability to craft effective, complete, clear and consistent messages, with the power to motivate action, remains a challenge for many risk communicators. The FEMA MDD allows AAs to input pertinent information about their emergency into the MDD, and it will automatically produce draft 90- and 360-character alerts based on cutting edge best practices in crisis psychology and social science research. The MDD is informed by a database of content for more than 50 hazards across a range of domains and includes hazard impact statements and protective action guidance that has been vetted with subject matter experts and reviewed by communication scholars.

The AAs should use the MDD to draft templated messages for the most prevalent hazards in their jurisdiction. They should also know how to quickly access the MDD to create emergency messages as needed when an emergency arises. The information below includes message content elements and strategies to help reduce response delays.

Table 2: Message Contents & Strategies to Reduce Response Delay

Message Content	**Strategy**
Source	Use local, familiar, trusted sources. No new acronyms.
Hazard/Consequences	Describe the threat/event and the consequences to populations.
Location/Population	Use familiar landmarks and known physical boundaries.
Protective Action	Explain the actions needed for health and safety.
Protective Action Time	Relay the time by when actions must begin. Create urgency with "NOW" or "Immediately.
Expiration Time	Less important than protective action initiation time.
Other	Write for readers with 6th grade (or less) reading level. Use terms with shared/common meaning.

Sutton, J., Kuligowski, E. *Alerts and Warnings on Short Messaging Channels: Guidance from an Expert Panel Process*, Natural Hazard Review ASCE 20:2 (2019). https://doi.org/10.1061/(ASCE)NH.1527-6996.0000324

Training, Testing, and Exercising

Training Requirements

The MSP/EMHSD personnel in charge of managing the state IPAWS program must complete the FEMA Independent Study course IS-247: Integrated Public Alert and Warning System (IPAWS) for Alert Originators as well as the IS-251: Integrated Public Alert and Warning System (IPAWS) for Alert Administrators course.

All MSP Alert Originators must complete training on the state AWN software which includes an overview of the IPAWS and best practices for effective message design to obtain credentials for the system. The training also includes an overview on the voice recording software used to record EAS messages.

Each MSP Alert Originator must also review and sign the IPAWS Rules of Behavior which is part of the MOA with the FEMA. Copies of the signed Rules of Behavior document will be kept by the State IPAWS Administrator.

Monthly Proficiency Demonstration Test

Every month the FEMA requires each AA to complete a Monthly Proficiency Demonstration Test (PDT). The PDT exercise requires the AA to send a message via their Test COG Identifier to the FEMA IPAWS TSSF. The test message should use every pathway which the AA has permissions for (EAS, WEA, and/or NWEM). The test must be completed even if a live alert has been sent during the month. The message sender should check the IPAWS Message Viewer to ensure the FEMA has received the PDT. Each individual MSP Alert Originator must complete a PDT each month to build confidence using the MSP alerting software. The State IPAWS Administrator tracks the completion of the monthly PDT exercise for the MSP.

Emergency Alert System Required Weekly Tests and Required Monthly Tests

All broadcasters and cable operators must transmit an EAS Required Weekly Test (RWT) on random days and times, and once a month, must re-transmit an EAS Required Monthly Test (RMT) within 60 minutes of receiving it on their EAS decoder. The MSP IOD transmits an EAS RWT statewide each week on Thursday. The EAS RMTs are scheduled annually by the Michigan Association of Broadcasters (MAB) in coordination with the LECCs and can be found on the MAB website at www.michiganmedia.com/area-eas-schedules. The MSP IOD is responsible for sending a statewide EAS RMT in the months of March and October each year.

Live Wireless Emergency Alert Testing

Live WEA tests offer the ability for an AA to assess WEA coverage and receipt within a jurisdiction. There are two options for live WEA tests. The first option is to use the RWT event code when sending out the WEA. Mobile phones ship from the manufacturer with the test alert option disabled. Only the devices with the test option turned on will receive the message. The WEA message should clearly state it is a test message.

The second type of live WEA tests includes using a public safety event code such as Civil Emergency Message (CEM). The FCC announced that beginning July 2024, WEA participating Commercial Mobile Service providers must support up to two ‘live’ WEA tests per county (or county equivalent) per calendar year. The AAs are no longer required to submit a waiver to the FCC to conduct live WEA tests. When conducting live WEA testing, the AA must conduct outreach and notify the public in a variety of methods in advance of the live test. The WEA message must clearly state it is only a test and that no emergency is actually occurring. They must also coordinate the test with state and local authorities, the SECC, affected PSAPs, and other first responder agencies. When issuing a live WEA test, the AA should select the public safety alert category, so device silence settings are honored. Live WEA testing will boost AA and consumer confidence in WEA, allow AAs to determine if the communications tools they wish to use, such as website hyperlinks embedded in WEA messages and websites themselves, will function as intended when needed, and provide WEA stakeholders with a way to assess wireless providers performance of WEA.

Exercising

The AWN shall be incorporated into exercises annually. Exercise objectives for public alerts and warnings should include practice of analysis and decision-making in sending an alert to the public; public alert message writing; procedures for coordination, review, and approval to send the alert; and practice in sending an alert through the IPAWS. The MSP/EMHSD shall be responsible for designing, developing, conducting, evaluating, and performing improvement planning of exercises which include IPAWS alerting. All MSP Alert Originators shall participate in these exercises annually. Results of such exercises shall be documented and corrective actions addressed.

The FEMA IPAWS TSSF also provides services to support on-site and virtual interactive seminars, training initiatives, and exercises.

Plan Development and Maintenance

The MI AWNP is developed in support of the MEMP to facilitate the issuing of emergency AWN utilizing multiple channel diffusion to yield quicker and more comprehensive audience penetration. The MI AWNP also addresses the need for redundant pathways to consider maintaining these functions in various potential operating environments.

The MI AWNP is developed to identify, establish, document, field-test, and continually evaluate plans, policies, and procedures against the evolving AWN landscape. All AWNs issued should be inclusive of planning for people with disabilities and others with AFN. If, at any time, an alert administrator/originator, system administrators, or system operators identifies a conflict in how the field response or activities are performed in comparison to what is described in the MI AWNP, and/or identifies a conflict between their listed activities within the MI AWNP, such conflict should be reported to the MSP/EMHSD Emergency Communications Specialist.

If, at any time, a stakeholder to the MI AWNP changes, develops, or amends any policy, procedure, or operation that will change or affect the contents of the MI AWNP, the entity should notify the MSP/EMHSD Emergency Communications Specialist.

The MI AWNP will be corrected immediately upon notification or observation of any operational errors or conflicts. Such corrections are to be reflected within the Record of Revisions.

Every three years, the alert administrator/originator, system administrators, and system operators identified within the plan, as well as any other departments or organizations that may need to be part of the review process, will conduct a formal review of the MI AWNP. The MSP/EMHSD Emergency Communications Specialist will lead the review process. Upon completion of the formal review, all corrections to the document will be reflected within the Record of Revisions.

Terms and Definitions

- **Access and Functional Needs (AFN)** – Refers to individuals with and without disabilities, who may need additional assistance because of any condition (temporary or permanent) that may limit their ability to act in an emergency. Individuals with AFN do not require any kind of diagnosis or specific evaluation. These may include but are not limited to:

    - individuals with disabilities;
    - individuals with limited English proficiency;
    - individuals with limited access to transportation;
    - individuals with limited access to financial resources;
    - older adults;
    - others deemed "at risk" by the Pandemic and All-Hazards Preparedness and Advancing Innovation Act or the Secretary of Health and Human Services.

- **Alert** – A system or technique that gains the attention of the public and draws their attention to a risk or hazard.

- **Alert Escalation Process (AEP)** – Process by which an AA can request another credentialed AA to send an AWN on their behalf for any reason.

- **Alert Originator** – An individual person at the keyboard/screen composing and issuing the alert. The Alert Originator utilizes the IPAWS in accordance with the AA's plans, policies, and procedures to create and send out emergency messages.

- **Alerting Authority (AA)** – A jurisdiction with the designated authority to alert and warn the public when there is an impending natural or human-made disaster or threat, or dangerous or missing person.

- **Collaborative Operating Groups (COGs)** – Term used by the FEMA to designate an agency responsible for coordinating emergency management/incident response activities and public alerting.

- **Emergency Alert System (EAS)** - A National Public Warning System commonly used by state and local authorities to deliver important emergency information, such as weather and AMBER alerts, to affected communities over television and radio.

- **Imminent Threat Alerts** – Include current or emerging natural or human-made disasters, extreme weather, active shooters, and other threatening emergencies.

- **Integrated Public Alert and Warning System (IPAWS)** – The FEMA's national system for local alerting providing authenticated emergency and life-saving information to the public through mobile phones using WEAs, to radio and television via the EAS, and on the NWR.

- **Message Design Dashboard (MDD)** – A tool allowing AAs to rapidly draft effective messages that are complete, clear, certain and consistent, with the power to motivate action.

- **Michigan Critical Incident Management System** – The web-based system used in Michigan to share critical information during an emergency, disaster, or planned event.

- **Non-Weather Emergency Message (NWEM)** – Emergency alert messages created by state or local AAs broadcast over the NWR and other NWS dissemination systems.

- **Notification**- Providing the public with event details and instructions, so they can make informed decisions when protecting themselves and others.

- **Public Safety Alerts** - Contain information about a threat that may not be imminent or after an imminent threat has occurred. Public safety alerts are less severe than imminent threat alerts.

- **Unique Authentication Number (UAN)** – A random number assigned by the FEMA to each state level 24/7 point of contact for the IPAWS AWN. The UAN is to be used when requesting the FEMA to send an alert on behalf of any local or state AA.

- **Warning –** Distribute guidance to prepare for an anticipated incident.

- **Wireless Emergency Alerts (WEA)** - Short emergency messages from authorized FSLTT public AAs broadcasted from cell towers to any WEA-enabled mobile device in a locally targeted area.

Appendix A: Missing and Endangered Persons (MEP) Criteria and Guidelines

The Missing Endangered Persons (MEP) event code will help find missing and endangered persons - including Indigenous persons - by expanding the types of critical alert messages that can be delivered to the public over television, radio, and wireless phones. The MEP alerts can be delivered over the nation's Emergency Alert System (EAS) and Wireless Emergency Alert (WEA) system to help law enforcement agencies galvanize public attention to locate missing endangered people of all ages.

Below are some guidelines on when to consider using the MEP event code and what type of information should be included within the message. The MEP code should be sent as a WEA for small geographic areas of interest or could also include an EAS message if a larger area of interest is suspected, as EAS alerts are sent out county-wide and beyond over television and radio. Consideration should be made to not over-alert the public in any one area.

Criteria for Situations That Could Be Considered for an MEP Alert:

- A law enforcement agency has responded to a report of the missing person and has started the investigation (e.g. actively searching for the person).
- A law enforcement agency is requesting the WEA or EAS.
- A 24-hour phone number for the investigating agency is available – NOT just 9-1-1.
- There must be sufficient descriptive information to disseminate to the public such as:
    - An unaltered picture of the missing person (no photo filters, etc.).
    - Physical description of the missing person.
    - Clothing description of the missing person.
    - Person of interest description (if applicable).
    - Vehicle description (make, model, color, license plate #, etc) (if applicable).
- This must be a timely incident and request. Absolutely NO “cold cases”, or time lapses of more than 24 hours since the person went missing will be considered.

Guidelines For Issuing an MEP Alert:

- **Age**
    - Any age and does not qualify under the AMBER Alert criteria.
        - AMBER Alert criteria is a person under the age of 18 that has been abducted.

- **Risk of Serious Harm or Death**
    - A law enforcement agency believes there is a risk of serious harm or potential death to the missing person which may include:
        - Report of an adult abduction.
        - Medical or mental health conditions that may endanger the person’s safety or others in their care/area/space.
        - Articulated vulnerability due to disability, cognitive impairment, diminished mental capacity, etc.
        - Threats/threatening behavior made to the individual.

- **Entry into the Law Enforcement Information Network (LEIN)/ National Crime Information Center (NCIC)**
  - The law enforcement agency should create an entry for the MEP into the LEIN or the NCIC. If time is of the essence, a missing person's entry can be made by Michigan State Police (MSP) Operations dispatchers, as a backup.
    - This guideline should not impinge the decision-making process to send a timely WEA or not, given the totality of circumstances.

- **Broadcast Area**
  - Where possible, the WEA should be geo-targeted to the area where it is believed the missing person is most likely located to ensure timely and relevant public awareness.
  - Mode of travel should be taken into consideration for dissemination to a geographic area. For instance, an individual traveling on foot cannot go as far or as quickly as one traveling by auto.
  - For a broadcast area that may cross several counties, MSP Operations Lieutenants have the capability of issuing a wide-area WEA MEP alert within the state. The responding law enforcement agency shall provide the MSP with the full WEA text (90- and 360-character messages) and broadcast area boundary in their request.

- **Time of Alert**
  - Take into consideration the time of day the alert is being sent out.
  - If the missing person is found while the WEA is still live, the message should be updated to share the search is over, and the WEA should stop being broadcast soon after the update is shared.

Basic MEP Message Template
Agency Name: MISSING [CHILD/ADULT/OLDER ADULT]. [Age, race/ethnicity, gender, hair color, clothing, AND/OR unique attributes]. LAST SEEN at [location] at [time] [mode of transport]. IF SEEN, immediately call [number]. PLEASE CHECK [property, yards, garages/carports, vehicles, sheds, outbuildings, security cameras, bodies of water, and/or areas around [your home/location]]. CHECK for [updates/information] at [website].

Appendix B: Alert, Warning, and Notifications Systems

The following tables highlight the various systems used for sending AWN. Potential operating environment challenges are highlighted for each primary system as well as the various alternate, contingency, and emergency systems (PACE) that could be used if faced with those challenges.

Alert & Warning Systems					
System	Stakeholders	Plan	Potential Operating Environment Challenges	Alternate, Contingency, or Emergency System(s)	Testing Schedule
Everbridge & CodeRED (IPAWS-EAS & WEA)	Public	MI AWN Plan, MEMP	IPAWS network, internet, or power outage	Global Security Systems Network (GSSNet/AlertFM), NAWAS, LEIN, backup generators, multiple internet providers	1x/month
GSSNet AlertFM (IPAWS-EAS & WEA, Satellite EAS)	Public	MI AWN Plan, MEMP	Satellite, network, power, or IPAWS outage	Phone call to broadcaster	1x/month
NAWAS	MSP Regional Communication Centers, Local government	MI AWN Plan, MEMP	NAWAS circuit down	Cell phone, email, LEIN	Daily
LEIN	Local public safety agencies	MI AWN Plan, MEMP	Network, or power outage	Cell phone, email	None
NOAA Weather Radio	Public	MI AWN Plan, MEMP	Power outage, damage to transmitter/antenna	WEA, EAS, data feeds	Weekly
Website	Public	MI AWN Plan, MEMP, MI-DPIP	Network, or power outage	Media release	None
Social Media (NextDoor, Facebook, X)	Public	MI AWN Plan, MEMP, MI-DPIP	Network, or power outage	Media release	None

Notification Systems					
Primary System	Stakeholders	Plan	Potential Operating Environment Challenges	Alternate, Contingency, or Emergency System(s)	Testing Schedule
CodeRED	Key decisionmakers Emergency personnel	MI AWN Plan, MEMP, MI COG	Network or power outage, Web-based software unavailable	Manual phone and email lists	Quarterly
Cell Phones	Key decisionmakers Emergency personnel	MI AWN Plan, MEMP, MI COG	Network or power outage, network overload	Multiple cell providers for cell phones, satellite phones, backup generators, FirstNet Compact Rapid Deployable	None

Referenced plans:

- MI AWNP = Michigan Alerts, Warnings, and Notifications Plan
- MEMP = Michigan Emergency Management Plan
- MI COG = Michigan Continuity of Government Plan
- MI-DPIP = Michigan Disaster Public Information Plan

Appendix C: Pre-Scripted Message Templates

The following templates have been developed with the MDD for pre-scripted messaging purposes. Further adjustments should be made before use, especially in highlighted areas.

911 Telephone Outage

90-Character WEA
[Agency Name]: 9-1-1 phone line is down. Call XXX-XXX-XXXX for emergencies.
360-Character WEA & EAS
[Agency Name]: 9-1-1 SERVICES are down for [location]. Delays in response may occur. CALL or text [phone number] if you or others are injured or have an emergency. CHECK [website or social media site] for updates.

Active Shooter

90-Character WEA
[Agency Name]: Active shooter in [location]. RUN, HIDE, FIGHT NOW!
360-Character WEA
[Agency Name:] ACTIVE SHOOTER in [location]. You could be shot, injured or killed. If in area, RUN AWAY now! HIDE if you cannot get away. FIGHT shooter as a last resort. AVOID area around [location] until further notice. CHECK [website or social media site] for updates. An all-clear message will be sent when situation is over.

Immediate Evacuation

90-Character WEA
[Agency Name]: EVACUATE NOW from [location] due to [hazard].
360-Character WEA & EAS
[Agency Name]: LEAVE NOW from [location] due to [hazard]. Take medications, pets, and pet supplies with you. Roads may be blocked or congested, plan your route accordingly. IF you are alone and unable to evacuate, contact local authorities at [contact info]. Follow [website or social media site] for updates.

Shelter In Place – Hazardous Chemicals

90-Character WEA
[Agency Name]: GO INSIDE NOW! Hazardous material release near [location].
360-Character WEA & EAS
[Agency Name]: A HAZARDOUS MATERIALS release occurred in [location] at [time]. Exposure may cause difficulty breathing, burning sensation in eyes/nose/throat/lungs, nausea, and possibly death. If able, AVOID area. If in area, GO INSIDE NOW! Bring all pets indoors. CLOSE doors, windows and air intakes. CHECK [website or social media site] for updates.

Accidental Alert

90-Character WEA
[Agency Name]: The previous alert was sent in error. There is NO EMERGENCY SITUATION.
360-Character WEA & EAS
[Agency Name]: The previous emergency alert sent about [incident] was sent in error. There is currently NO emergency situation, please disregard the previous alert. We regret any undue stress or inconvenience caused, and steps have been taken to prevent such errors from occurring in the future.