

ALERT & WARNING – SUPPORT OPERATIONS PLAN

CEMP - ANNEX IV DOCUMENTATION



March 26, 2021

Note: This Support Operations Plan is part of Annex IV of the Comprehensive Emergency Management Plan and this version includes the 2021 updates. City of Seattle Office of Emergency Management acts as the Support Operations Plan Coordinator and collaborated with many partners for respective updates.

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1. STAKEHOLDERS

Table 1: Stakeholders

PRIMARY DEPARTMENT	PLAN COORDINATOR	SUPPORT DEPARTMENTS AND AGENCIES
Seattle City Light	Seattle Office of Emergency Management	Seattle Office of the Mayor
Seattle Department of Transportation		Public Health—Seattle & King County
Seattle Public Utilities		Seattle Office of Immigrant and Refugee Affairs
Seattle Fire Department		Seattle Department of Parks and Recreation
Seattle Police Department		Seattle Center

2. INTRODUCTION

2.1 Purpose

This Annex to the Comprehensive Emergency Management Plan (CEMP) describes the means, organization, and process by which the City of Seattle (City) will provide timely, accurate, and useful information throughout an emergency. It provides details on the organizational structure, department responsibilities, the decision-making process, and methods by which alerts and warnings are developed and communicated to the general public and City employees. A comprehensive alert and warning program is a critical component to a community's ability to effectively respond to emergencies.

The City of Seattle fully utilizes the National Incident Management System (NIMS) and its concepts in all emergency and disaster related efforts. This Annex is intended to be a living plan and is reviewed and revised on a cyclical basis.

2.2 Scope

This annex applies to all City departments, offices, staff, and elected officials. This annex applies and should be used in all situations where a City department (or departments) needs to issue an alert or warning to the public, attract public attention to an unusual situation, or immediately disseminate information to City employees.

This annex describes a variety of methods to relay information to the public; not all of the communications methods in this annex will be practical in every incident. It is up to the Incident Commander and their Public Information Officer (PIO) to determine the combination of methods that will best meet the needs of a given incident. Additionally, this annex describes ways that personnel can ensure that public alerts and warnings are delivered in ways that they can be understood by all members of the community.

2.3 Authority

- City Municipal Code, Chapter 10.02.020 - Authority of Mayor to issue certain orders
- City Municipal Code, Chapter 10.02.070 -Comprehensive Emergency Management Plan
- City Municipal Code, Chapter 10.02.080 -Emergency Management Organization
- City of Seattle Executive Order 2017-10: Language Access (2017)
- Washington State R.C.W. 38.52.070: (Substitute Senate Bill 5046): passed on 05-16-2017, effective 07-23-2017.
- PL 110-325 - Title 42 Chapter 126 Americans with Disabilities Act -ADA (1990) as amended: <http://www.ada.gov/pubs/ada.htm>
- National Incident Management System (updated 2017): <http://www.fema.gov/national-incident-management-system>
- Presidential (Policy) Decision Directive 5 (2003) as amended: <http://www.fas.org/irp/offdocs/nspd/hspd-5.html>
- Presidential (Policy) Decision Directive 8 (2011) as amended: <http://www.dhs.gov/presidential-policy-directive-8-national-preparedness>
- Title 47 CFR, Part 73, Subpart G, Emergency Alert System, as amended; the Local Area or State EAS Plan

- ‘Public Alert and Warning System,’ Presidential Executive Order 13407, June 26, 2006
- Warning, Alert, and Response Network (WARN) Act, October 13, 2006

2.4 Limitations

The City will endeavor to make every reasonable effort to provide alert and warning to the public in a timely manner. However, City resources and communications systems may become overwhelmed by the magnitude of an incident and its impacts. There is no guarantee implied by this document that a perfect emergency notification will be practical or possible.

3. SITUATION

3.1 Emergency Conditions and Hazards

The Seattle Hazard Identification and Vulnerability Analysis (SHIVA) identifies Seattle’s hazards and examines their consequences in order to inform decisions about how best to prepare for them. It provides information regarding potential impacts of hazards to the people, economy, and built and natural environments of the City of Seattle. The SHIVA provides a foundation for all of the City’s disaster planning and preparedness activities. Conveying information to the public plays a critical role in response to all of the hazards included in the SHIVA.

To the extent possible, warning messages should be distributed to all members of the community at risk, including commuters, travelers or transient populations, people with disabilities or access and functional needs, non-English speakers, the elderly, and people with limited technology. People rarely act on a single warning message alone. Warnings should be delivered in multiple formats in order to increase the number of individuals who receive the message, as well as the likelihood of any given individual taking action based on the warning.

Situation statements that apply to all hazards can be found in the CEMP – Annex I: Community Profile. In addition to the all-hazard situation statements, the following specifically apply to the alert and warning of City employees and the public:

- The need to warn the public of impending danger and provide protective guidance could arise at any time. To reduce loss of lives, adequate and timely warnings must be provided;
- City decision makers and key department personnel must receive notification of emergencies as soon as possible in order to respond effectively to an emergency;
- 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;
- City public information officers will play a central role in developing alerts and warnings to stakeholders and the general public;
- The City maintains a public awareness program to ensure that city employees and the public are informed of potential hazards and appropriate protective measures prior to an incident occurring;
- King County, the State of Washington, and/or the Federal Government may initiate warnings when a large-scale threat or emergency exists. Incidents falling into this category include, but are not limited to terrorist attacks, and biohazards or other catastrophic hazards. In these instances, City personnel will verify the warning and further disseminate it according to the guidance in this annex;
- Given that the public receives and processes information in different ways, multiple systems should always be used to communicate protective actions;
- Infrastructure such as power outages, damage to cellular towers or phone exchanges, or cellular congestion may disrupt or prevent end users from receiving some methods of alerts and warnings; and
- The City of Seattle does not have a fixed outdoor warning system.

3.2 Planning Assumptions

A list of assumptions that apply to all hazards can be found in the CEMP-Annex I: Community Profile. In addition to the all-hazard assumptions, the following specifically applies to the concepts of alert and warning.

- Alert and notification of city employees may be initiated by individual departments, department dispatch centers or other operating centers, or from the Office of Emergency Management (OEM).
- Departments in the lead and with subject matter expertise for an incident are best positioned to issue warnings for that incident.
- The amount of lead time available to provide warnings will vary from situation to situation. Some situations may occur without warning, limiting or precluding the ability to inform the public to take protective action.
- No single communication method will reach the entire population of the City. A combination of systems will need to be used to reach the greatest number of people in the shortest amount of time.
- The proper use of adequate warning will save lives, reduce injuries, and protect property.
- Disruption and damage to the telecommunications infrastructure will likely occur in the event of a natural emergency or disaster. The type and degree of damage may impact the ability to use specific systems and delay the ability to disseminate alerts and warnings.
- Normal communications alone are not adequate to disseminate warning information and a variety of communication tools will be required to communicate alerts and warnings to the whole community.
 - Electronic and broadcast news media are the primary sources of emergency information for the general public. However, the public is becoming more reliant on social media for information.
 - Large percentages of the population rely on cell phones as their primary means of communication and do not have land line phones.
 - Cell phones are a significant way for people of all abilities to send and receive information for both voice and visual communication.
- Existing media resources, if used effectively, will cooperate and facilitate dissemination of warnings and emergency public information.
- Local radio and television stations will broadcast Emergency Alert System (EAS) messages when requested by local government.
- During an emergency situation, rumors may develop, potentially causing unnecessary fear, confusion, and undesired public reactions.
- Augmentation of the Joint Information System may be required to meet the information demand from the general public during an emergency situation.
- Certain populations (for example non-English speaking populations) may not understand the messages, may be confused by them or may not trust them.
- During an emergency, people turn to communication sources they routinely use and to people they trust. These include cultural influencers, faith leaders, and community leaders who understand their culture and speak their language.

- Many limited English proficiency (LEP) communities use their own systems to communicate, i.e., social media, email, phone trees, face-to-face contact or on-line apps.
- Leveraging LEP community-initiated systems and working with bi-lingual cultural leaders trusted by their own communities can help emergency managers disseminate life safety messages to LEP community members.
- Notification systems like *AlertSeattle* and Alert King County are reliant on people opting in to receive official emergency notifications from the City.
- Current notification systems rely on auto-translation programs to send messages in other languages. Auto-translation often includes errors, so is an imperfect source for life-safety messaging.
- The federal level Emergency Alert System (EAS) and Wireless Emergency Alert (WEA) can only issue alerts using English characters.
- There are limited ways to definitively track or document who is receiving messages that are disseminated, and when or how it is received.
- Emergency messages that are clear and quickly understood have the greatest chance of effectively warning people of imminent hazards and what actions should be taken to stay safe.
- Few language communities are represented by ethnic media and many ethnic news organizations do not operate 24/7 due to limited resources.
- Disasters and people cross jurisdictional boundaries, so effective communication strategies need to be regional. Incident coordination can occur at the Unified Command level, from dispatch center to dispatch center, through Emergency Management Duty Officers, or between activated Emergency Operations Centers (EOC).
- Time is of the essence when sending life safety messages about immediate protective actions. In order to err on the side of safety, responders may have to disseminate incomplete information and may occasionally have to retract messages that are later found to be untrue.

4. ORGANIZATIONAL CONCEPTS

4.1 Agency and Positional Responsibilities

4.1.1 *Mayor of the City of Seattle*

The Mayor, as the ultimate authority, approves or delegates approval of alerts and warnings for the City of Seattle, which may include the following:

- Authorize, typically through delegated authority to department heads, the release of public warning information;
- Issue a Proclamation of Civil Emergency and Civil Emergency Order(s) when appropriate;
- Authorize activation of the City’s Emergency Operations Center (EOC) including the Joint Information Center (JIC);
- Provide necessary guidance and leadership; and
- Through Emergency Support Function #15 (ESF #15) External Affairs, and in conjunction with appropriate department Public Information Officers (PIO), coordinate the dissemination of information through the JIC located at the Seattle EOC.

4.1.2 *Lead Agency or Incident Commander*

The lead agency for specific hazards, as defined in the CEMP-Annex IV, Emergency Operations Plan, is responsible for the following.

- Identifying the need for the public to take protective actions and developing, or assigning appropriate subject matter experts to develop the message content and the areas for which the message(s) apply;
- Through their PIO, or other designated person, ensuring the dissemination of alerts, warnings, and other emergency messages to the public;
- Clearly communicating the impacted area and any immediate life safety concerns to inform the PIO’s selection of message delivery methods,
- Through dispatch, notifying the Seattle OEM Staff Duty Officer, as appropriate and requesting the activation of the EOC/JIC if additional resources are required;
- Coordinating the use of equipment and personnel for route alerting and door-to-door warning for scene specific notifications; and
- Retracting erroneous messages within 15 minutes of realization that the message was in error or incorrect.

4 1.3 *Lead Agency PIO*

The Lead Agency PIO is responsible for:

- Drafting and disseminating alerts and warnings;
- Ensuring messages are distributed in multi-modal and accessible formats, as described in Section 5.2 of this document;
- Identifying the need for translation so that life safety messages can be understood by individuals with limited English proficiency (LEP) (See Section 5.2.3);
- Requesting translation support from the JIC if activated or the Office of Immigrants and Refugee Affairs (OIRA) if during business hours;
- Coordinating with appropriate parties to push any message out using the appropriate communication systems;
- Coordinating with the JIC through the JIC Supervisor or agency JIC representative when the Seattle EOC is activated.

4 1.4 *City of Seattle OEM*

The City of Seattle OEM is responsible for:

- Convening the Emergency Executive Board (EEB) for situational awareness and decision making;
- Sending alerts and notifications to the EEB, EOC Responders, Disaster Management Committee members, and emergency management stakeholders (public, private, nonprofit) whenever the EOC is activated;
- Coordinating the development and update of this annex. This responsibility is assigned to the OEM Planning Coordinator unless otherwise specified by the Director of the OEM;
- Developing and disseminating educational materials to the general public regarding the availability and use of warning systems used by the City;
- Developing the (pre-incident) strategy for emergency notification to those with limited-English proficiency (LEP); and
- Convening the *AlertSeattle* Board to coordinate among the departments with *AlertSeattle* sending authority.

4 1.5 *JIC Supervisor*

When the Seattle EOC is activated, public information coordination becomes a function of the JIC which works to support centralized city and regional messaging that is timely, accurate and consistent.

When activated, the JIC Supervisor is responsible for and/or assists the lead agency PIO with:

- Disseminating any alerts and warnings to the public;
- Developing and disseminating of any follow up communications to the media and/or general public;
- Disseminating any messaging over secondary communication systems;
- Establishing and managing the JIC at the EOC, and coordinating staffing to ensure that the JIC can assume public warning notification functions;
- Managing public messaging in coordination with the King County JIC, the King County Inclusive Emergency Communications and other regional stakeholders, for timely, accurate and consistent communications;
- Leveraging the use of community-vetted, pre-translated messaging when possible, and obtaining ad hoc translations when pre-scripted messages are not sufficient;
- Coordinating with the Mayor's Office for American Sign Language (ASL) interpretation during emergency news conferences;

- Ensuring accessibility and appropriate translation of all messages;
- Coordinating with ethnic media; and
- Monitoring broadcast and social media and disseminating updated messaging as needed.

4.1.6 Public Safety Communications Centers (Fire & Police)

Seattle Police and Fire each operate a 24-hour communications and dispatch center. These centers have the following responsibilities related to public warning:

- When directed and in coordination with their department PIO's, execute the delivery of messages using the *AlertSeattle*, or other systems as directed; and
- Forward any life safety warnings to King County Sheriff's Communication Center, or the King County Office of Emergency Management Duty Officer for dissemination on the Integrated Public Alert and Warning Systems (IPAWS); and
- Notify appropriate personnel per department procedures including the OEM Staff Duty Officer.

4.1.7 Department Operations Centers and Department Points of Contact

- Seattle City Light, Seattle Public Utilities, Seattle Department of Transportation, and Seattle Center have 24-hour capability and will notify appropriate department personnel per their internal protocols.
- When EOC Responders receive an emergency notification from any source, they will notify appropriate personnel in their departments per their internal protocols.

4.1.8 IT Department

The Seattle IT Department is responsible for:

- Maintaining vendor relationships defined in service level agreements *AlertSeattle* and other alert and warning systems; and
- Adding emergency messages to seattle.gov homepage, as appropriate.

4.1.9 All City Departments

All City Departments are responsible for:

- Ensuring the Mayor's Office is notified and informed about incidents warranting use of alert and warning systems.
- Collecting and maintaining personal contact information and a process to reach personnel in the event of an emergency.

4.1.10 Office of Immigration and Refugee Affairs

During office hours or when activated as a part of the EOC/JIC, OIRA:

- Supports the translation of alert and warning messages, both pre-scripted alert and ad hoc;
- Identifies significant language groups within the City and helps identify community leaders in those groups to amplify messages; and
- Maintains SharePoint site with LEP outreach materials, including list of ethnic media outlets.

4.2 Systems Used for Disseminating Alert and Warning Information to the Public

The City of Seattle has a variety of methods and systems to disseminate alert and warning information.

These methods vary in complexity from face-to-face communication to geo-targeted text messages.

Each method comes with strengths and drawbacks, which are outlined in Appendix 3. Seattle is a diverse community, with a need to ensure that life safety messages are able to be understood by all, including

those with access and functional needs and limited English proficiency. Issuing messages in a variety of formats will help to ensure messaging is broadly disseminated and accessible to a wider audience.

The on-scene Incident Commander or Lead Department is responsible for ensuring that messages are disseminated. Their PIO (or the JIC, when activated) is responsible for weighing requirements for speed, content, accessibility, and translation to determine the most appropriate methods for that dissemination.

4.2.1 *Route Notification or Door-to-Door Messaging*

The public may be warned by emergency personnel issuing warnings over the speaker systems in emergency vehicles as they drive through the impacted area. Warnings may also be delivered by response personnel going door-to-door. Both of these methods are effective in delivering warning, but they are labor-intensive and time-consuming and may not be feasible for large areas. To ensure people with limited sight or hearing receive public warnings, these two methods should be implemented simultaneously.

4.2.2 *AlertSeattle*

AlertSeattle is a notification and warning system that enables the City to send the public, decision makers, and employees routine and emergency information. Messages are created and can be sent as texts, e-mails, or voice calls. The City uses the system to alert the public, City decision makers, and City employees. The notification system allows the City to issue a city-wide alert message, reaching those who have signed up, or to target a specific community based on an area drawn on an interactive map interface. Messages will then go out by text, e-mail, or voice call as specified by the recipient when they sign up for the service.

AlertSeattle is primarily an opt-in system, and members of the public need to sign up to receive messages. However, in life-threatening situations, *AlertSeattle* can send voice messages to telephone databases that can be accessed through the system. *AlertSeattle* will eventually incorporate the ability to send IPAWS messages.

4.2.3 *Integrated Public Alert and Warning System (IPAWS)*

IPAWS is an internet-based capability, run by the Federal Emergency Management Agency (FEMA), which federal, state, local, tribal, and territorial authorities can use to issue critical public alerts and warnings. IPAWS allows simultaneous dissemination through the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), National Oceanic and Atmospheric Administration (NOAA) Weather Radio and other National Weather Service dissemination channels, Internet, existing unique warning systems, and emerging distribution technologies.

Emergency Alert System (EAS) enables Federal, state, and local authorities to warn their jurisdiction of an imminent threat via broadcast, cable, and satellite providers. While broadcasters are required to transmit messages initiated by the President of the United States, transmission of state and local messages is voluntary on the part of broadcasters except for the designated Local Primary stations. KIRO and KOMO radio and TV are Seattle's Local Primary stations. Satellite and cable TV carriers also participate in EAS, but their capacity to geographically target dissemination is more limited. EAS can distribute warning messages over large areas very quickly, but only reach people who are currently watching or listening to broadcast media. The City of Seattle accesses EAS through the King County OEM Duty Officer or King County Emergency Coordination Center if activated.

Wireless Emergency Alerts (WEA) are emergency messages sent by authorized government alerting authorities through the major mobile carriers. WEA alerts are targeted to a defined geographical area, and offer a unique alert tone, vibration, and notification display in order to differentiate it from regular notifications. Because cell phone users are automatically enrolled and WEA are sent based on the closest cell tower, they can reach both residents and visitors of the impacted area. WEA include three different kinds of alerts:

1. Presidential Alerts: Alerts issued by the President or a designee
2. Imminent Threat Alerts: Alerts that include severe man-made or natural disasters, such as hurricanes, earthquakes, tornadoes, etc., where an imminent threat to life or property exists
3. AMBER Alerts: Alerts that meet the U.S. Department of Justice's criteria to help law enforcement search for and locate an abducted child.

Mobile users are not charged for receiving these text-like alerts and are automatically enrolled to receive them.

The City of Seattle has the capability to directly send Wireless Emergency Alerts using the Alert Seattle system. The following groups are recognized as authorized senders:

- Seattle Fire Department PIO
- Seattle Police Department PIO
- Seattle Police Dispatch
- Seattle Public Utilities Emergency Management
- Seattle EOC Joint Information Supervisors
- Appropriately trained PIO's who staff the EOC JIC.

National Weather Service/National Oceanic and Atmospheric Administration (NOAA) Weather Radio: The [NOAA weather radio system](#) allows for transmission of emergency information on a nationwide system of transmitters. NOAA Weather Radio Broadcasts National Weather Service warnings, watches, forecasts, weather observations and other hazard information 24 hours a day. It also broadcasts alerts of non-weather emergencies such as national security, natural, environmental, and public safety (such as an AMBER Alert) through IPAWS. A residence equipped with a NOAA weather radio can receive warning information on equipment that is not dependent on external power or user intervention. The network supplements the existing alert and warning resources and serves as an additional delivery mechanism for sending life-saving information nationally, regionally, or locally. The system also reaches people who opt for an accessible NOAA device and may be using internet-based weather programs such as "Weatherbug" to receive information. The service is also monitored by State and Federal coordinating centers and provides a backup capability for notifying these centers of local emergencies.

4.2.4 Commercial Radio and TV

A significant percentage of the public still receives news from commercial radio or TV. Seattle has 16 full-power television stations and 62 licensed radio stations of all formats within close listening range of Seattle, including audio broadcasting on the internet. In addition, as of January 2019 there are 17 ethnic media organizations who maintain 24/7 capability. In addition to EAS, the City's PIOs can communicate directly with news desks of most stations using normal communication channels like phone and email.

4 2.5 Social Media/Websites

The City uses a number of different social media tools for communicating with stakeholders. Seattle departments operate their own blogs and social media pages. The City has policies and capabilities in place to be able to push information from a central point to all of these places to ensure consistent messaging in an emergency. This is coordinated through the JIC once it is activated. Additionally, the City home page has the capability of hosting “alert” messages which are prominently displayed on the home page. The *AlertSeattle* blog page is dedicated to hosting alert messages and maintains a real-time log of City departments’ social media tweets during an emergency. All City departments should create online content that is accessible and develop practices to ensure the sites are accessible at all times.

4 2.6 Seattle Channel

Seattle Channel is a government-access cable channel that is a part of the City of Seattle’s Department of Information Technology. While programming decisions are made independent of the Mayor and Seattle City Council, procedures are in place so that the Channel can be used by the EOC during emergencies. During emergencies, the Seattle Channel live-streams and captions the Mayor’s news conferences. The broadcast is also posted to YouTube to further amplify the message. Seattle Channel presents programs on cable television – channel 21 on Comcast (321 HD), Wave (721 HD) and 8003 on CenturyLink (8503 HD) – and via the internet (www.seattlechannel.org).

4 2.7 Variable Message Signs

Variable Message Signs (VMS) are electronic traffic signs that can provide motorists with important information during emergencies. They may also recommend alternate routes, limit travel speed, warn of duration and location of problem or simply provide alerts or warnings. The City of Seattle Department of Transportation manages a number of fixed and mobile signs that are strategically placed along roadways around the City and can be used as part of a multi-modal strategy with other auditory warnings (such as highway advisory radio) to ensure messaging reaches as many people as possible.

4 2.8 Highway Advisory Radio

Travelers Information Stations (TIS), also called Highway Advisory Radio (HAR) stations by the United States Department of Transportation, are licensed low-power AM radio stations operated by departments of transportation, local government, and other entities. The City of Seattle Department of Transportation has access to a number of fixed and mobile transmitters that can be used to distribute information during an emergency. It is a best practice to pair Highway Advisory Radio messages with a visual warning (variable message signs) in order to ensure they reach a wider audience.

4 2.9 Alert King County

Similar to *AlertSeattle*, Alert King County is an opt-in, subscriber-based public alert resource for residents to stay informed about emergency situations impacting the King County region. Registration is free and alerts are sent by email, mobile text, and/or voice. It is likely that some people in Seattle, whether residents or commuters, are subscribers to Alert King County either instead of, or in addition to, *AlertSeattle*. The City of Seattle can request that Alert King County messages go out through the King County OEM Duty Officer.

4 2.10 King County Road Alert

King County Road Alert is a service for travelers on unincorporated roads in King County. Subscribers receive emails and/or text messages notifying them of a significant road closure or hazard has impacted

travel. City of Seattle employees can request messages be sent through the Seattle Department of Transportation or the King County OEM Duty Officer.

4 2.11 Community Communications Network (CCN):

The Community Communications Network is an email distribution (listserv) to individuals from community organizations, non-profits, faith, cultural and social service providers to disseminate information on emergent health issues to those who may be disproportionately affected by disaster. This listserv is maintained by Public Health – Seattle & King County. The City can request that messages be distributed to the listserv through the Public Health Duty Officer. Additionally, the CCN has been incorporated into the Alert King County group notifications that can be added to an Alert King County message created and managed by King County.

4 2.12 Amateur Radio Networks

Seattle Auxiliary Communications Service (ACS) is an emergency communications team of approximately 140 trained volunteers serving the City of Seattle, sponsored by Seattle OEM. Team members are licensed amateur radio operators and registered state emergency workers. Seattle ACS' mission is to provide communications support to the city of Seattle in times of disaster and emergency when primary systems are broken or overloaded. This can include distributing messages from the EOC out to neighborhoods, leveraging existing community groups, such as Community Emergency Hubs, to further disseminate the message.

National Weather Service Seattle also sponsors SKYWARN - a system which uses community members to report weather events using an amateur radio network. This network is hosted by the K7MMI repeater system and provides coverage throughout much of western Washington including King County. Amateur radio operators assigned to NOAA will operate the amateur radio workstation located at the weather office on the K7MMI system operating on a frequency of 147.20 MHz and 146.980 MHz. (see <http://www.k7mmi.net> for additional information). While this system is primarily for collecting information it may, if ordered by NOAA, be utilized for disseminating alert and warning information.

4.3 Systems Used for Disseminating Alert and Warning Information to City Employees

4 3.1 Dispatch Center Computer Aided Dispatch (CAD)

Both Seattle Police and Seattle Fire use CAD systems to assist in call-taking and dispatching resources. These systems are also capable of individual and mass notification of department leadership and employees, and may be used for mobilization of resources, as well as emergency notification.

4 3.2 City Issued Pager

A number of public safety leadership and employees with the City of Seattle carry alpha-numeric pagers, which can be used by communications centers to notify staff or decision makers about incidents.

4 3.3 Email Distribution Lists

A number of City departments and the EOC utilize distribution groups to communicate with key stakeholders and the general public. Critical distribution lists are kept at the EOC for use during emergencies. PIOs and key contacts within City departments also utilize distribution lists to forward messages to groups in times of emergency.

4.3.4 AlertSeattle

AlertSeattle is a notification and warning system that enables the City to send the public and employees routine and emergency information. It may be used to warn the public to take immediate life protective measures and it may also be used to mobilize emergency responders during incidents. Messages are created and can be sent as texts, emails or voice calls. The City uses the system to alert the public, City leadership, and City employees. Emergency warning messages can be sent to City employees with notifications concerning campus-wide events (as with Seattle Center) or targeting messages to a specific department or building. Functional notification groups allow the City to send targeted messages to EOC responders and decision makers, when needed. Messaging can be sent via text, phone, and email.

4.3.5 City 800 MHz Radio Communications

The City operates its own frequencies on the County radio system. The City system has three channels that can be accessed by City departments, key local stakeholders, schools, amateur radio, and the National Weather Service. The system can be used to disseminate and receive warning information. In the course of their normal operations, some departments also utilize an 800MHz radio system that can be used to provide their employees with alert and warning information during emergencies.

5. CONCEPT OF OPERATIONS

5.1 Actions by Phases

5.1.1 Normal Operations

Normal operations involve any mitigation and preparedness activities associated with decision-makers, employee notification or public warning. This includes activities that take place before any incident or event that would necessitate emergency public information or employee notification. This phase consists of the following major tasks:

- Train City employees who have responsibilities or roles that support the execution of responsibilities outlined in this annex;
- Educate the public on how they might receive information and what they should do when they receive an alert or warning;
- Ensure that notification groups and employee information are regularly updated;
- Conduct regular testing of department line of succession, employee notification, and public warning systems and correct deficiencies as soon as possible;
- Conduct training and exercises that include the use of multi-modal strategies for notification and warning systems;
- Evaluate new communication platforms and technologies that could enhance public warning capabilities and accessibility. To ensure messages are developed for maximum accessibility, alerting platforms should ideally include the ability to manage the following:
 - TTY/TDD;
 - Font size;
 - Color analyzer;
 - Sound & vibrations;
 - Flashes;
 - Use of attachments (video);
 - 508 compliance (use of screen-readers);
 - Posting of accessible electronic content, documents, and videos; and
 - Video relay.
- Routinely assess methods by which the public receives information, including methods used by people with access and functional needs, and assess how any changes might impact their ability to receive or process alerts and warnings;
- Update and/or revise the Alert and Warning Annex to the CEMP; and
- Prior to an incident, identify trusted agents who can help convey the intended meaning of a message and educate their community on the City's alert and warning program. This may include religious leaders, non-profit agency representatives, local elected officials, or prominent business owners within the respective community.

5.1.2 Response

Response begins when City personnel become aware that an incident or event may occur or is already in progress. This includes any pre-event activities and consists of the following major tasks:

- Gain and maintain situational awareness;
- Establish a Joint Information System to coordinate incident public information among involved agencies;
- Identify and notify personnel that develop and initiate emergency public information;
- Disseminate emergency information over multiple communication systems;
- Inform and convene the Emergency Executive Board, as warranted;
- Activate the Emergency Operations Center and Joint Information Center when necessary;
- Ensure messaging is consistent across all alerting platforms;
- Provide emergency information to the public in accessible formats using multi-modal delivery methods and strategies;
- Gather, coordinate, prepare, obtain authorization, and release information to the public in support of emergency operations;
- Identify community members from impacted communities, especially those with LEP or those who may be disproportionately affected, and request that those community members further disseminate the message;
- Monitor social media and other information sources to identify information gaps or misinformation among the public;
- Manage public inquiries and rumors;
- Demobilize and/or reassign resources that are no longer necessary for emergency public information operations; and
- Capture incident costs, to include printing of flyers, emergency translation, and interpretation, associated with emergency public information operations.

5.1.3 Recovery

Recovery includes short-term and long-term efforts to rebuild and revitalize areas affected by disaster. For the purposes of this plan, recovery will include the following tasks:

- Provide information to the public, using accessible and multi-modal communication methods and strategies, about recovery processes and programs;
- Submit and close out reimbursement claims for operations related to emergency public information; and
- Conduct after an action review of regional emergency public information operations and develop an After Action Review and Corrective Action/Improvement Plan.

5.2 Warning Dissemination Strategy

Warnings should be issued when there is an imminent threat to life, health, or property. Even non-imminent threats, such as flooding, should be communicated to the public so that they may be better prepared. When dealing with uncertain or conflicting information about a threat, the lead department should choose to err on the side of protecting the public. Reasonable detail should be provided, but a warning message is not the place for an extended discussion of scientific data and probabilities. The lead agency for the hazard is responsible for the development and issuance of the alert or warning.

Once the decision is made to issue an alert or warning, the Incident Commander or lead department shall provide guidance on specific elements or protective actions for inclusion in the message to their PIO, or other authority responsible for crafting the alert or warning message. The lead department will

utilize existing departmental policies and procedures for ensuring that the PIO has access to the subject matter expertise necessary to develop and issue alerts and warnings. The PIO will ensure the message is quickly disseminated using multiple delivery systems for accessibility, including translated content. In some cases, multiple messages may need to be created in order to meet restrictions of various warning systems. Life safety messages need to be delivered in way that they can be understood by the entire impacted population. Section 5.2.4 describes a variety of methods that can help meet this objective.

When an incident is of significant magnitude or has exceeded the ability of the on-scene responders to coordinate an incident and its impacts on the community, the Incident Commander can request activation of the EOC and Joint Information Center (JIC) through the OEM Staff Duty Officer. The JIC, when activated, assumes the responsibility of managing the development and issuance of alerts and warnings once appropriate staffing levels are in place. This transfer of public information responsibilities will be approved by the Incident Commander and EOC Director before the transfer occurs.

In cases where the EOC is activated and the warning area is larger than the scope of a single incident, decisions regarding public alerts and warnings may be made at the EOC. In these situations, the determination to issue an alert or warning will be made by the lead department for the hazard in consultation with the EOC Director. Should the EOC not be activated at the time, and there is no clear departmental lead, the OEM Director or their designee will coordinate among the various departments involved to facilitate crafting and sending an alert or warning.

Irrelevant warnings can fatigue the public rapidly and lead to recipients discounting further warning messages or opting out of receiving future alerts and warnings. Every effort should be made — within the capabilities of the warning system(s) — to limit the warning to people actually at risk, while still erring on the side of protecting the public. A diagram for the process of developing and disseminating an alert or warning can be found in [Appendix 4 – Alert and Warning Process Chart](#).

5.2.1 Selection of Warning Systems

Alerts and warnings should be disseminated in multiple formats in order to increase the number of individuals who receive the message. The lead department PIO is responsible for determining which systems are appropriate for an incident. If the EOC and JIC are activated, the JIC will assume this responsibility. [Appendix 3 – Warning Communications Systems Matrix](#) describes the benefits and barriers of the City’s various alert and warning systems.

During incidents that involve extended power or communications outages, the City may rely on low- or no-tech solutions, such as disseminating messages via amateur radio operators and/or paper flyers. These factors will be incorporated into the public message strategy that the JIC develops and that is described in the City of Seattle CEMP, Emergency Support Function #15 – External Affairs.

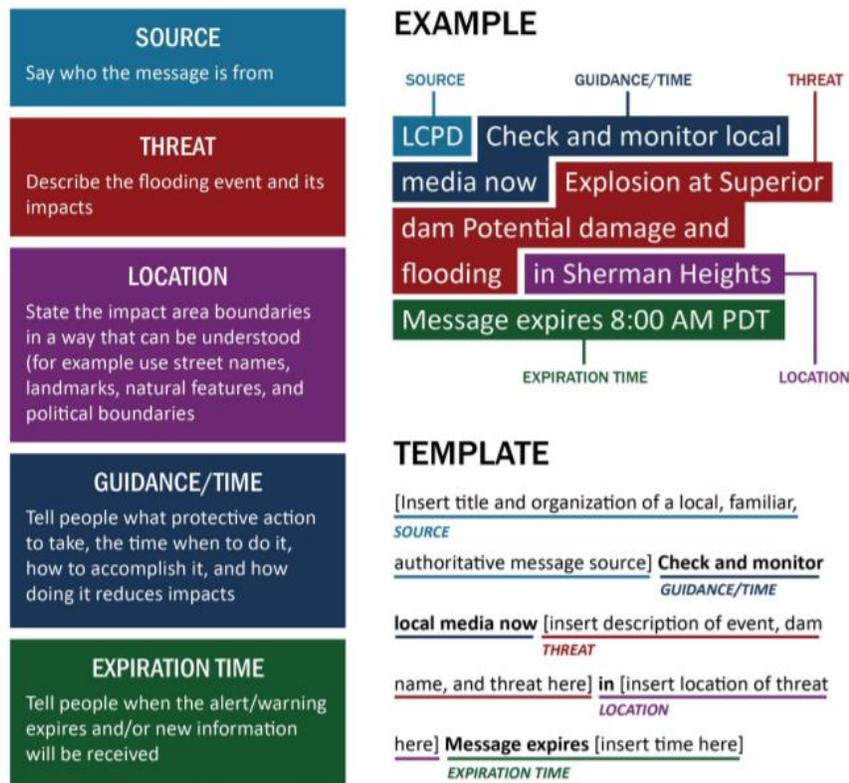
5.2.2 Development of Warning Message Elements

There are ways to craft messages that make it more likely that people will take action.¹ The lead department PIO should work with the necessary subject matter experts to craft the message and ensure that the message addresses the following five essential topics:

¹ Sections 5.2.2 and 5.2.3 reflect research conducted by Dennis Mileti, as discussed in a Federal Emergency Management Agency (FEMA)-hosted “Preptalk.” <https://www.fema.gov/preptalks/mileti>

1. Source: Identify who—agency/authority—the alert or warning is coming from. This should be a source that is familiar to and trusted by the community.
2. Hazard: Describe the threat and its impacts.
3. Location: Articulate the impact boundaries in common language, i.e. use street names, landmarks, neighborhood name, etc.
4. Protective Action: Say what protective action to take, the time to do it, how to accomplish it and how doing it reduces the impact.
5. Time: Expected duration, if known, or “until further notice.”
6. Translation: Include a link to translated versions of the message, whenever allowed by the technology being used.

Figure 1 shows an example of how this message structure can be applied to craft a message. Additionally, 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.



Source: A Guide to Public Alerts and Warnings for Dams and Levees. Colors changed from original text for compliance with Section 508 of the Rehabilitation Act

Figure 1: Emergency Message Template (Mileti, 2018)

To maximize warning effectiveness, the tone and language of a warning message should be:

- Specific – The message should make it clear which people are at risk and what protective action they should take. Inevitably, some people who are not at risk will receive the message; they should be able to determine that from the message text.

- Consistent – The public should receive consistent and mutually reinforcing messages through all media and from all sources.
- Confident – Even if the underlying information is uncertain, there should be no hedging or ambiguity about the protective action recommendations.
- Clear – Wording must be in simple language that can be easily translated and easily understood by people with differing cultural backgrounds. Technical jargon should be avoided.
- Accurate – If people learn or suspect they are not receiving correct and complete information, they may begin to ignore both the message and source.

5.2.3 Guidance for Truncating Messages

Many warning delivery systems have limitations on character length or composition that require a warning message to be brief. However, “keep it short” is not necessarily a good guideline for composing a warning message. Warning messages that do not answer key questions may lead to those affected seeking additional information from uninformed friends or relatives, or other sources of misinformation, such as rumor, superstitions, and urban myths.

The order of message content has an impact on alert recipient response time. Since different delivery channels dictate the length of messages, below are the optimal message structures for both short (90-140 characters) and long messages (up to 1380 characters).

A. Short messages work best if the content is presented in the following order:
Source, protective action, hazard, location, duration/expiration time.

B. Longer messages work best if the message content is provided in the following order:
Source, hazard, protective action, location, duration/expiration time.

Additional information can be included through a link to a website that hosts alert information or drive recipients to monitor media outlets for additional information.

5.2.4 Additional Considerations for Communicating with Individuals with Limited English Proficiency

Emergencies routinely occur throughout the City where police and fire personnel encounter and communicate with individuals with limited English proficiency (LEP). There are 25 languages, including American Sign Language (ASL), which have at least 1000 speakers within the City. See [Appendix 1— Language Resources](#) for a list of these languages as well as additional resources for outreach. Responders use a variety of methods to ensure that everyone receives emergency notifications in a manner in which they can understand, including:

- Emergency communications personnel communicate with individuals using telephonic interpreters (as in the case of an individual or family member calling 911). This is the Language Line used daily by Fire and Police dispatch centers.
- Field responders rely on bi-lingual community members to communicate to LEP individuals or the LEP community.
- Field responders rely on non-verbal communication such as hand signals, gestures, or other actions to indicate where people should go or what they should do to stay safe.
- Seattle Police Department responders request bi-lingual emergency responders to report to the scene to facilitate communication with LEP individuals or the LEP community.
- AlertSeattle notifications include links to translated messages. Seattle has webpages with pre-translated life safety messages for select hazards in 14 languages. These webpages are live and the link simply needs to be added to a message. If a life safety message needs to go out that does not align with any of the pre-translated messages, the on-scene PIO can:
 - Request assistance from OIRA if the incident occurs during normal business hours or OIRA is represented in the EOC, or
 - Use online translation tools. In order to minimize the likelihood of errors when using online translation, reduce the message to the simplest language possible, use more than one tool to verify, and back translate to confirm the translation is accurate.
- PIOs provide the message to ethnic media outlets for translation and additional dissemination.

Additionally, the Department of Neighborhoods and OIRA can provide guidance on individuals, organizations and media who can effectively disseminate emergency messaging to specific communities. Using these trusted partners to amplify emergency communications will help ensure that the message is understood and trusted within the communities, making community members more likely to take action than were the message to solely come from governmental sources.

5.2.5 Final Message Approvals and Release

As the Chief Elected Official, the Mayor has the ultimate authority on whether or not an alert or warning should be issued to the public. However, there will be instances where, due to factors such as time or accessibility, it may not be possible to obtain Mayoral approval. In cases where a delay could result in unacceptable risk to the public, the authority to issue an alert or warning rests with the following individuals (in order of authority), or their designees:

1. The Director or Chief whose department is the designated lead for the hazards listed in the CEMP-Annex IV, Emergency Operations Plan.
2. If applicable, the on-scene Incident Commander whose department is the designated lead for the hazards listed in the CEMP-Annex IV, Emergency Operations Plan.

Typically, the responsibility for the final message development and release will be further delegated to the PIO of the lead department until the Joint Information Center in Seattle EOC is staffed. Once staffed, the EOC JIC assumes responsibility for centralizing and managing the development of messages and their release. In order to ensure that as many people as possible both receive and understand the warning, all messages, especially those that deal with life safety issues, should be sent in a variety of formats and include translated content.

5.2.6 Further Distribution within the Community

Despite the City's best efforts to distribute alerts and warnings in a variety of formats, initial distribution will not reach everyone. Additionally, studies have shown that informal notifications, those that people receive from other members of the community, can be both more rapid and more likely to be followed than formal notifications that come directly from the government. This is particularly true among LEP communities, and populations that are vulnerable or have higher levels of mistrust of the government. The City encourages community members who receive alerts and warnings to further share them with neighbors, friends, family, or anyone who may be affected, by any available method, including:

- Word of mouth, in-person, or face-to-face communication;
- Established community phone trees;
- Texting to their personal network of family and friends;
- Posting to personal or organizational web and social media sites or apps used within their community. Examples include WhatsApp, WeChat, Twitter, Line, Facebook, Messenger; and/or
- Posting physical signs in common gathering spaces.

5.3 Updating and/or Cancelling Alerts and Warnings

Updates to protective action notices should be done whenever:

- There is a change in protective actions that need to be taken;
- There is a change in the geographic impact area recommended for the alert or warning;
- The warning was sent in error or found to be unnecessary; or
- The notice is extended or cancelled.

The Incident Commander or lead department, through their PIO, is responsible for ensuring that any updates or cancellations of alerts and warnings are communicated using the appropriate systems. When the JIC is activated, the lead department PIO will coordinate with the EOC JIC Supervisor to accomplish this. The JIC Supervisor may be supported by other PIOs or the EOC Planning Section as needed. Should a message be sent in error, an update/retraction should be sent within 15 minutes of realization that the message was in error or incorrect.

Consideration should be given to using **all** of the same systems that were used for the initial notification. The JIC will take responsibility for updates and cancellations once the JIC is sufficiently staffed. If the JIC is not activated, the lead department PIO maintains responsibility for any updates/cancellations.

5.4 Monitoring Effectiveness

Several methods will be used to monitor the effectiveness of alerts and warnings. Methods used can include:

- Tracking media exposure and social media shares and trends to gauge how quickly an alert is spreading;
- Monitoring of traffic cameras from either Washington Department of Transportation or Seattle Department of Transportation;
- Use of spotters (e.g. ACS volunteers) to relay information;
- Monitoring of media outlets and live television feeds; and/or
- Use of air assets from King County, the State of Washington, or the Civil Air Patrol.

Monitoring for effectiveness of alerts and warnings will be managed by the Seattle JIC.

5.5 Coordination with Neighboring Jurisdictions

There will be times when a warning issued by the City of Seattle will impact another jurisdiction, and vice versa. In the event a public warning statement extends into another jurisdiction, the issuing agency will coordinate with the neighboring jurisdiction by the following means:

1. Directly through Unified Command or with the public safety dispatch center of the effected jurisdictions;
2. Through the Seattle OEM Staff Duty Officer who will then facilitate contact and coordination with King County OEM. These agencies will, in turn, coordinate directly with the emergency manager of the affected jurisdiction; and/or
3. The Seattle EOC may assume the responsibility of coordination once it is activated and staffed.

6. RESOURCE REQUIREMENTS

When an incident exceeds the capability of on-scene resources, a department director or incident commander may request additional support through the Office of Emergency Management (OEM). The City of Seattle has a 24-hour OEM Duty Officer number which can receive messages at any time, day or night, and can help facilitate multi-department coordination. When necessary, the Director of OEM, in consultation with the Mayor or their designee, authorizes the activation of the EOC to further facilitate coordination among departments. The mission of the City EOC is to minimize the impact of incidents on the community through coordinated planning, information sharing, resource management, and make policy decisions. The activation of the EOC always includes activation of the Joint Information Center (JIC). Once the JIC reaches full staffing, it assumes responsibility for coordinating incident messaging.

6.1 Logistical Support

OEM maintains the City's Emergency Operations Center (EOC) and co-located JIC. The EOC is a fully functioning site that can accommodate up to 150 responders at any given time. When activated, the EOC can provide resource support to on-scene personnel. This could include coordinating with other supporting departments to provide assistance with alert and warning, such as additional personnel to help with door-to-door notifications, deploying variable message signs, assistance with translation or obtaining interpreters.

6.2 Communications and Data

Seattle OEM maintains robust communications systems in order to ensure that they can receive and send emergency notifications in a wide variety of incident circumstances:

- Telephones (City network, "hot and ring-down" lines, & cell phones);
- Satellite Phone;
- Ring-down telephone circuits;
- All City Intercom;
- Pagers;
- Printers;
- FAX Machine;
- 800 MHz Radios (KC OEM talk-groups);
- 800 MHz radio (OEM talk-group);
- OEM UHF Repeater System – three locations in the city: North, Central and South
- ACS Amateur Radio system – 16 repeaters across the City
- Back-up Command and Control radio;
- Email over amateur radio systems;
- Back-up Command and Control radio;
- HAMWAN – Internet Protocol (IP) network using amateur radio spectrum linking EOCs and other facilities across the region with VoIP and data services;

- Lo-Band, HF VHF and UHF radios;
- Connections to SHARES HF Federal, State and Local inter-agency radio network;
- Electronic Data systems (servers/desktops);
- National Warning System (NAWAS) telephone;
- Comprehensive Emergency Management Network (CEMNET);
- Video Conferencing Systems;
- WebEOC; and
- *AlertSeattle*.

7. MAINTENANCE

This document is an external plan as defined by the City of Seattle Emergency Management Program Planning Policy and follows the maintenance process, which includes a method and schedule for evaluation and revision, as described therein.

Table 2: Record of Changes

DATE	TYPE	CONTACT	SUMMARY
March 2021	Update	M Auflick	Updated IPAWS information to reflect new capabilities and updated maintenance section to reflect new process.
August 2019	Revision	L Schmit	Improve LEP and access and functional needs accessibility, incorporate lessons learned in California state guidance
November 2017	Update	L Meyers	Completed annual maintenance with an evaluation and update.
November 2015	Update	K Neafcy	Completed annual update.
November 2014	Update	K Neafcy	Completed annual update.

7.1 Record Keeping

Responding departments should maintain records of alerts, warnings, press releases, and other relevant materials related to the incident. Seattle OEM will maintain a record of all WebEOC entries and sign-in sheets for the EOC operations supporting the incident.

7.2 Post Incident Review

The City of Seattle Training and Exercise Plan outlines the post-incident review process to be used to ensure a proper after-action review is conducted for all EOC activations and significant events. This process includes OEM soliciting responses to a standard set of questions for all incidents, including how well the City accomplished each of the EOC objectives. Public communications is a default EOC objective, so EOC responders will be prompted for feedback on the City's public communications after every incident.

In addition to the standard after action/improvement planning process, OEM is actively working on improving the processes for disseminating messages among communities with limited English proficiency. The processes described in this plan will be evaluated and updated based on future planning efforts and community feedback.

7.3 Testing and Maintenance of Warning Systems

The following outlines the testing and maintenance procedures for the two primary warning methods used by the City of Seattle:

AlertSeattle: Specific testing for *AlertSeattle* is set in the *AlertSeattle* Use Policy and Guidelines, Section 4.2. Additional information on the process for testing can be found in specific standard operating procedures for City departments.

Emergency Alert System (EAS): The Central Puget Sound Area Emergency Alert System Plan outlines the regular testing of EAS with area broadcasters. As the access point for the City of Seattle, King County OEM also routinely tests the ability to push messages to EAS using the Integrated Public Alert and Warning System. Procedures for testing and use by King County are found in the King County Office of Emergency Management Emergency Alert System (EAS) Release Procedures document.

Other systems are used and/or tested on a regular basis by the departments that control them.

Wireless Emergency Alerts (WEA): Federal regulations require monthly testing to be performed using WEA. The Office of Emergency Management performs a monthly WEA test as outlined in the Seattle OEM IPAWS Procedure.

8. TERMS AND DEFINITIONS

Emergency Operations Center: The physical location where the coordination of information and resources to support incident management (on-scene operations) activities normally takes place.

Evacuation: An organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.

Incident Commander: The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The Incident Commander has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

Joint Information Center: A facility in which personnel coordinate incident-related public information activities. The JIC serves as the central point of contact for all news media. Public information officials from all participating agencies co-locate at, or virtually coordinate through, the JIC.

Public Alert: A communication intended to attract public attention to an unusual situation and motivate individual awareness. The measure of an effective alert message is the extent to which the intended audience becomes attentive and searches for additional information.

Public Warning: A communication intended to persuade members of the public to take one or more protective actions in order 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 the protective action and/or heeds the guidance.

9. ACRONYMS

ACS: Auxiliary Communications Service

ADA: Americans with Disabilities Act

ASL: American Sign Language

CAD: Computer Aided Dispatch

CCN: Community Communications Network

CEMNET: Comprehensive Emergency Management Network

CEMP: Comprehensive Emergency Management Plan

DHS: Department of Homeland Security

EAS: Emergency Alert System

EOC: Emergency Operations Center

ESF: Emergency Support Function

FEMA: Federal Emergency Management Agency

HAR: Highway Advisory Radio

IPAWS: Integrated Public Alert and Warning System

JIC: Joint Information Center

LEP: Limited English proficiency

NAWAS: National Alert & Warning System

NIMS: National Incident Management System

NOAA: National Oceanic and Atmospheric Administration

OEM: Office of Emergency Management

OIRA: Office of Immigrant and Refugee Affairs

PIO: Public Information Officer

SMS: Short Message Service

TIS: Travelers Information Stations

VMS: Variable Message signs

WAMAS: Washington State Intrastate Mutual Aid System

WEA: Wireless Emergency Alert

10. REFERENCES

City of Seattle Comprehensive Emergency Management Plan

Seattle Hazard Identification and Vulnerability Analysis

WAMAS: Washington State Intrastate Mutual Aid System

AlertSeattle Policy and Use Guidelines (2019)

City of Seattle Executive Order 2017-10: Language Access (2017)

Washington State R.C.W. 38.52.070: (Substitute Senate Bill 5046): passed on 05-16-2017, effective 07-23-2017

Inclusive Emergency Communications Language Library

State of California Alert and Warning Guidelines, March 2019

Dennis Mileti PrepTalk: Modernizing Public Warning Messaging

King County EAS Standard Operating Guidelines

Seattle OEM IPAWS Procedure

US Department of Homeland Security, Science and Technology Directorate, *Report on Alerting Tactics*, August 7, 2018

11. APPENDIX 1 – LANGUAGE RESOURCES

This Appendix describes the resources available to City staff to ensure that emergency messages can be understood by the entire impacted population. Per the requirements of RCW 38.52.020, 25 languages, including American Sign Language, qualify as significant population segments in Seattle (those groups that comprise 5% or 1000 residents, whichever is less).

11.1 Language Access SharePoint Site

Seattle’s current Tier 1, Tier 2 and emerging languages are determined by the Office of Immigrant and Refugee Affairs (OIRA) and are listed on the Language Access SharePoint site maintained by OIRA, which is accessible to all City employees. These are:

1. Seattle Tier 1 languages – 8 – *most commonly spoken
 - a. *Cantonese
 - b. Korean
 - c. Mandarin
 - d. Somali
 - e. *Spanish
 - f. Tagalog/Filipino
 - g. *Vietnamese
 - h. American Sign Language²
2. Seattle Tier 2 languages – 7 – spoken by at least 10K residents
 - a. Amharic
 - b. Cambodian/Khmer
 - c. Laotian
 - d. Oromo
 - e. Russian
 - f. Thai
 - g. Tigrinya
3. Emerging Seattle language communities – 10 languages – spoken by 2.5-5% of population
 - a. Arabic
 - b. Bhutanese
 - c. Burmese/Karen
 - d. Congolese
 - e. Farsi
 - f. Japanese
 - g. Nepali
 - h. Pashto/Dari
 - i. Ukranian
 - j. Toishinese

² OIRA focuses on immigrant and refugee communities, so does not include ASL in their Tier 1 languages, but the City’s EOC and JIC operations do include ASL as a Tier 1 language.

Other resources on the OIRA SharePoint for City employees include:

- a. Ethnic Media Directory – Tools and Resources
- b. Executive Order 2017-10: Language Access
- c. Interpreter and Translator Directory – Tools and Resources
- d. Language Access Toolkit – Tools and Resources
- e. Tier 1, Tier 2 and Emerging Languages – Frequently Asked Questions

11.2 JIC Shared Drive

Additionally, in the EOC shared drive, JIC Activation folder, there are links to websites with messaging for 14 hazards, including translations in each of Seattle’s Tier 1 and Tier 2 languages:

1. Evacuation
2. Shelter-in-Place
3. Earthquake
4. Volcano
5. Tsunami
6. Boil Water
7. Flood
8. Winter Storm
9. Pandemic Flu
10. Oil Train
11. Hazmat
12. Active Shooter
13. Heat
14. Power Outage

11.3 Interpretation Blanket Contract

The City maintains blanket contracts for language interpretation, including American Sign Language. City employees can access these contracts through the Finance and Administrative Services’ City Purchasing and Contracting Services SharePoint site.

12. APPENDIX 2 – WEA AND EAS CHECKLIST

The City of Seattle can send WEA messages independently. The City of Seattle sends EAS messages through King County. When activated, the King County EOC is the City of Seattle’s primary contact point for EAS messages. When the EOC is not activated, the King County Office of Emergency Management Duty Officer can initiate an EAS message for the City of Seattle. If the Duty Officer is unavailable, the King County Sheriff’s Office 9-1-1 Communications Center can initiate EAS messages. Regardless of which department is sending the EAS message, the sender will have to complete a form, and will require the below information from Seattle responders to do so. This same information will need to be compiled when the City of Seattle is independently sending a WEA message.

1. Verify the emergency meets the criteria for an “imminent threat”:
 - a. Are lives in immediate danger? [Yes]
 - b. Will WEA/EAS activation save lives? [Yes]
 - c. Is a more effective method of warning available? [No]
2. The sender will ask a series of questions in order to determine the incident Source, Event Code, Location, Duration, etc.
3. The sender will ask what formats the message should be sent in. When lives are in danger, it is preferable to send the message in all available formats. This will also help make the message more accessible for certain access and functional needs.
4. Be prepared to provide the following information:
 - a. The name of the agency delivering the message
 - b. What will happen
 - c. When it will happen
 - d. Where it will happen
 - e. Geographic area affected (if multiple jurisdictions are affected, include all)
 - f. Emergency protection measures for the public
 - g. Reassurance that officials are addressing the incident
 - h. If applicable, a statement encouraging people to avoid using telephone systems for the first few hours except for life threatening emergencies
 - i. Advise the public to listen to their local news radio station for more emergency information.

13. APPENDIX 3 – PUBLIC WARNING COMMUNICATIONS SYSTEMS

Table 3 documents some of the benefits and barriers of various alert and warning communications systems.

Table 3: Public Warning Communications Systems³

Tactic	Benefits	Barriers
Door to door	<ul style="list-style-type: none"> • Information is directly from a trusted source • Higher sense of urgency • Higher rate of responsive action • Reaches isolated communities • Reaches those in need of assistance • Builds trust • Originators can be confident that the message was delivered to intended recipients • A good way to get the attention of people with visual and/or auditory disabilities 	<ul style="list-style-type: none"> • Time consuming tactic • Reaches limited number of individuals • Danger to the alert originator • Does not scale • Personnel might not speak the language of message recipients and need to rely on hand gestures or community-member translations • Community members may be wary of strangers coming to their door •
Loudspeakers and public address (PA) systems (on emergency vehicles)	<ul style="list-style-type: none"> • Gets attention of individuals in the affected area • Reaches individuals visiting affected areas • No costs for upkeep • Reaches people who may not be watching TV, monitoring the internet, or have a phone • Faster than door-to-door • Accessible for people with visual disabilities 	<ul style="list-style-type: none"> • Message may be garbled and difficult to understand • Message may not be heard or understood, particularly by people with auditory disabilities; needs to be paired with a visual message • After the vehicle drives by, the public will have no way to access the alert or information

³ This table was adapted from the Department of Homeland Security, Science and Technology Directorate’s “Report on Alerting Tactics”, August 2018.

Tactic	Benefits	Barriers
<p>Text/SMS <i>(AlertSeattle)</i></p>	<ul style="list-style-type: none"> • Short-form messages are easy to send quickly • If a text cannot get through, it keeps trying • Reaches users where they are • Users can easily refer back to messages later • Users are able to filter the type of information they want to receive, allowing for more personalized alerts (e.g. Home address, work address, county) • Accessible for people with auditory and visual disabilities and can use multiple language formats • Built in translation capability for some languages ⁴ 	<ul style="list-style-type: none"> • Requires users to sign up and “opt-in” • Short messages are limited in effectiveness if they cannot grab a user’s attention • Space and character limitation may lead to confusion on actions to take • A lack of sufficient information may result in receiving an alert and taking action • Must dedicate personnel resources to educate users on availability • Sender cannot easily verify the accuracy of auto translations
<p>Email <i>(AlertSeattle)</i></p>	<ul style="list-style-type: none"> • Reach users on their computers and smart phones • Ability for alert originators to send longer messages • Easy to provide multimedia links, URLs, links to translated messages, or additional resources when appropriate • Users are able to filter the type of information they want to receive, allowing for more personalized alerts • If the email is from an official source, it verifies information and builds trust • Can be used in emergency and non-emergency situations • Subscribers can pre-select language preferences, and 	<ul style="list-style-type: none"> • Requires users to sign up and “opt-in” • Must dedicate personnel resources to educate users on availability • User(s) may not receive the email • Potential to lose a user’s attention if the message has too much information • Auto-translations may not be reliable—the City’s preferred method is to include a link to translated messages • May be a delay between when the message is received and when it is read

⁴ Alert Seattle currently has auto-translate capability for the following languages: Chinese Simplified, Chinese Traditional, Korean, Russian, Spanish, Thai, and Vietnamese

Tactic	Benefits	Barriers
	<p><i>AlertSeattle</i> can auto-translate into some languages⁵</p> <ul style="list-style-type: none"> Typically accessible to people with visual and/or auditory disabilities 	
<p>Reverse Telephone Distribution Systems (<i>AlertSeattle</i>)</p>	<ul style="list-style-type: none"> Ability to target at-risk users through landlines in specific geographic areas Provides voice alerts on urgent incidents Easy to provide clear instructions on how to respond Accessible for people with visual disabilities 	<ul style="list-style-type: none"> Fragile infrastructure during natural disasters, which can also be costly Users are trending away from landline telephone in favor of mobile devices Once the user hangs up the phone, there is no way to access the alert or information Individuals tend to be suspicious of automated phone calls Accessibility issues if language barriers are not addressed Landline phones less likely to be accessible to people with auditory disabilities; TTY phones are rare
<p>Emergency Alert System</p>	<ul style="list-style-type: none"> Reaches users listening to TV or radio Distinct noise grabs the users' attention Uses voice technology so people can hear it without looking Ability for alert originators to send updated alerts and information Mandatory weekly testing Verifies information from a trusted source Accessible to people with visual and/or auditory disabilities 	<ul style="list-style-type: none"> Users are trending away from cable TV and radio in favor of video streaming services Does not reach users on satellite TV Multiple alerts can lead to message fatigue Public and industry complaints for interruption of service Unable to target alerts with greater accuracy due to media markets Messages sent in English only People with visual disabilities are less likely to have the TV

⁵ Alert Seattle currently has auto-translate capability for the following languages: Chinese Simplified, Chinese Traditional, Korean, Russian, Spanish, Thai, and Vietnamese

Tactic	Benefits	Barriers
Wireless Emergency Alert System	<ul style="list-style-type: none"> • Ability to target at-risk users through cell phones in specific geographic areas • Will target all compatible phones in the warning area—no need for pre-registration • Not affected by cell network congestion • Reaches tourists and visitors, who are unlikely to have enrolled in a local service • Acts like a “siren in your pocket” • Grabs public attention, motivating receivers to seek additional information • Typically accessible to people with auditory and/or visual disabilities 	<ul style="list-style-type: none"> • Can only send in English and Spanish • Short messages are limited in effectiveness if they cannot grab a user’s attention • Space and character limitation may lead to confusion on actions to take • A lack of sufficient information may result in receiving an alert and taking action • Imprecise geo-targeting, which can result in over-alerting and message fatigue • Individuals can “opt-out” except for Presidential messages
NOAA Weather Radio	<ul style="list-style-type: none"> • Distinct noise grabs the users’ attention • NOAA radios can receive notifications during power outages • Users can purchase accessible NOAA radios • System is tested regularly 	<ul style="list-style-type: none"> • Can only access through the National Weather Service or King County (IPAWS) • Recipients must own a NOAA Weather Radio • Alerts are sent in English only
Traditional Media (press release, TV or radio broadcast, etc.)	<ul style="list-style-type: none"> • Easy to tailor content • More detailed information • More time to prep response • Builds trust • Emergency Management controls the information released and shared • Can target ethnic media stations to translate and pass on the message 	<ul style="list-style-type: none"> • Time consuming process which sometimes results in information being out of date • Information reaches the public slowly • Public reach is limited • Content tends to be no-nonsense, which feels less personal and engaging • Media desire for breaking news can lead to errors • Inconsistent use of closed captioning by TV outlets • The City has to arrange for ASL interpretation.

Tactic	Benefits	Barriers
Social Media	<ul style="list-style-type: none"> • Twitter and Facebook can translate some messages • Allows for originators and recipients to add to content, have dialog • Supports full alert and warning cycle, including preparedness and recovery • Easy to provide multimedia links, URLs, or additional resources • Can supplement traditional alerting tactics to provide more information, reducing milling periods • Easy for public to share the link with friends/family • Easy to incorporate translations in multiple languages • Monitoring allows for responsiveness to public discourse and more specific messaging • Typically accessible to people with auditory and/or visual disabilities 	<ul style="list-style-type: none"> • User will only receive the alert if they are looking for information • Misinformation is difficult to distinguish and combat • Retweets can confuse message as time goes on • Requires internet access and many require social media accounts • Not all segments of the community are equally active on social media • Public expectation of a two-way dialogue may be unrealistic in times of imminent threat, resulting in issues
Website	<ul style="list-style-type: none"> • Can act as a home base for incident information • Alert originators can update content • Publicly accessible • Allows for long form, short form, and multi-media content • Information comes from a verified source • Integrates well with many alerting tactics • Easy for public to share the link with friends/family • Easy to incorporate translations in multiple languages • Properly formatted websites are accessible to people with auditory and/or visual disabilities 	<ul style="list-style-type: none"> • Public is not automatically notified of updates. Users must seek out information • Requires version control so users read the most up-to-date information • Can be hard to find alert information on more complex websites • Website needs to be ADA-accessible

Tactic	Benefits	Barriers
Seattle Channel	<ul style="list-style-type: none"> • Easy to tailor content • More detailed information • City has direct control of messaging and the posting of updates • Emergency news conferences are captioned, and include ASL translator whenever possible 	<ul style="list-style-type: none"> • Public reach is limited • Users need to have functioning TV and/or internet connection • Broadcast is in English only
Variable Message Signs	<ul style="list-style-type: none"> • Reaches vehicles in transit • Portable signs can be deployed to specific locations • Accessible to people with auditory disabilities 	<ul style="list-style-type: none"> • Short messages are limited in effectiveness if they cannot grab a user’s attention • Recipients unable to devote full attention to the message or looking up additional information while they are driving • Portable signs take time to position and set up • Messaging in English only • Not accessible to people with visual disabilities; needs to be paired with auditory message
Highway Advisory Radio	<ul style="list-style-type: none"> • Reaches vehicles in transit • Can provide more detailed information • Accessible to people with visual disabilities 	<ul style="list-style-type: none"> • Recipients must know which radio station to tune in to • Not accessible to people with auditory disabilities; needs to be paired with visual message
Word of Mouth	<ul style="list-style-type: none"> • Information is coming from a trusted resource (e.g. family, friends) • Higher sense of urgency • Users are more likely to respond • Reaches isolated communities and individuals • Can be amplified through other alerting tactics (social media, text/SMS, email) 	<ul style="list-style-type: none"> • May take time for the message to spread

14. APPENDIX 4 – ALERT AND WARNING PROCESS CHART

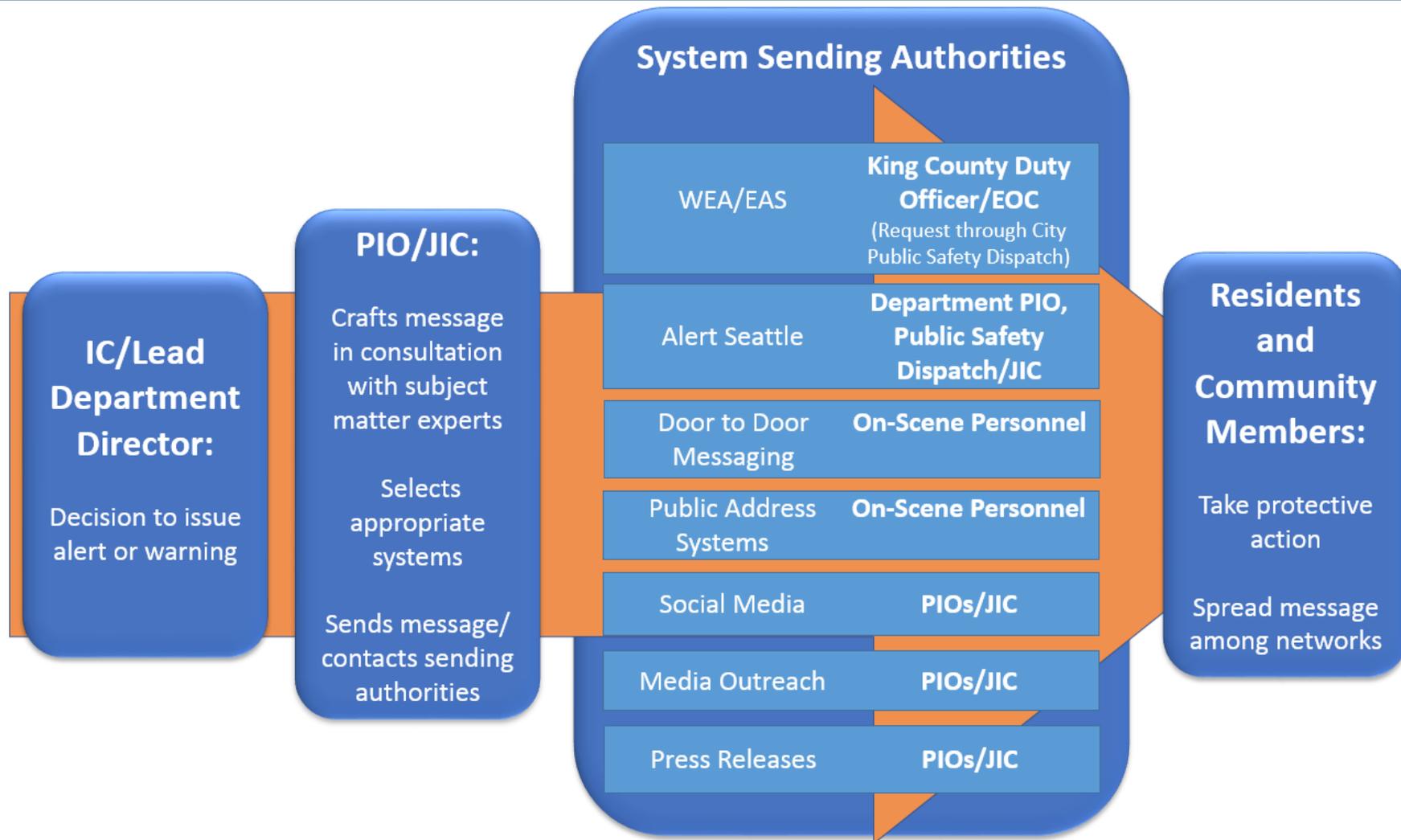


Figure 2: Alert and Warning Process Chart