Seattle Office
of Emergency
Management

CITY OF SEATTLE

COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

EMERGENCY OPERATIONS PLAN

ALERT & WARNING ANNEX

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1.0   INTRODUCTION

1.1   Purpose

This Annex to the Comprehensive Emergency Management Plan (CEMP) describes the means, organization, and process by which the City of Seattle will provide timely, accurate, and useful information and instructions to city employees and the general public throughout an emergency. It provides details on the organizational structure, department responsibilities, the decision making process, and methods by which protective action notices are developed, and communicated to City employees and the general public.

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

1.2   Scope

The processes identified in this annex apply 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 a protective action notice to an area larger than 16 square blocks.

This annex does not apply to situations where these functions can be successfully accomplished using ONLY on-scene personnel.   This typically will involve small events. Examples include:

- A law enforcement event where a few houses need to be evacuated.

- An apartment building fire where door-to-door notifications can successfully do the job.

1.3   Situation

Situation statements that apply to all hazards can be found in the CEMP-Base Plan, Section II A. In addition to the all-hazard situation statements, the following specifically apply to the concepts of alert and notification of city departments or employees and public warning:

- The need to warn the public of impending danger 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.

- City public information officers will play a central role in developing protective action notices to stakeholders and the general public.

- Prior to an emergency occurring, every reasonable action is taken to ensure that city employees and the public is informed of potential hazards and the protective measures that can be taken through a public awareness program.

- A higher authority (State of Washington and/or Federal Government) may initiate warnings through the use of the National Alert & Warning System (NAWAS) whenever 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.

- Given that the public receives and processes information in different ways, multiple systems will be used to communicate protective actions when possible.

- Events that require the issuance of a protective action notice can happen at any time.

- Infrastructure such as power outages, damage to cellular towers or phone exchanges, or cellular congestion may disrupt or prevent end users from receiving protective action notices on equipment that depend on these utilities.

- The City of Seattle does not have a fixed outdoor warning system.

1.4 Assumptions

A list of assumptions that apply to all hazards can be found in the CEMP-Base Plan, Section II C. In addition to the all-hazard assumptions, the following specifically applies to the concepts of alert and notification, and public 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.

- The amount of lead time available to provide warnings will vary from situation to situation. Some situations may occur without warning, precluding the ability to utilize some or all communication tools used to inform the public to take protective action.

- No single communication will reach all of the 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.

- Normal communications are not adequate to disseminate warning information to the general public and key stakeholder groups.

- 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 utilize specific systems and delay the ability to disseminate protective action notices.

- Electronic news media are the primary sources of emergency information for the general public. However the public is becoming more reliant on social media sites for information.

- Large percentages of the population consider cell phone their primary means of voice communication and do not have land line phones.

- 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 (JIS) may be required to meet the information demand from the general public during an emergency situation.

- A variety of communication tools will be required to communicate protective action notices to special needs groups.

- Certain populations (for example non-English speaking populations) may not understand the messages, may be confused by them or may not trust them.

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1.5   Key Terms

Protective Action Notice: A statement which instructs people to take immediate action to protect their life due to a danger or impending danger. A protective action notice typically involves a notice to immediately leave an area, or stay sheltered in place pending further instructions.

Evacuation: National Incident Management System defines evacuation as 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 Command System (ICS): The Incident Command System organizational element responsible for overall management of the incident and consisting of the Incident Commander (either single or unified command structure) and any assigned supporting staff.

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

Incident Command Post: The field location where the primary functions are performed. The ICP may be co-located with the Incident Base or other incident facilities.

1.6   Legal Authorities Specific to Public Warning

- 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

- 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 2013): 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

2. ORGANIZATIONAL CONCEPTS

2.1 Agency and Positional Responsibilities

2 1.1 Mayor of the City of Seattle

The Mayor, as the ultimate authority, approves or delegates approval of any protective action notice for the City of Seattle. The Mayor may:

- Authorize the release of any public warning information including protective action notices.

- Issue a declaration of Emergency or Civil Emergency Order when appropriate.

- Authorize activation of the City's Emergency Operations Center (EOC).

- Provide necessary guidance and leadership.

- Through Emergency Support Function #15 (ESF #15) External Affairs, and in conjunction with appropriate department PIO's, coordinate the dissemination of information through the Joint Information Center located at the Seattle EOC.

2 1.2 Lead Agency or Incident Commander

The lead agency for specific hazards as defined in the CEMP-Base Plan Section IV, C, 1 is responsible for:

- Through the lead agency's PIO, or other designated person, coordinates the development and delivery of any protective action notice to the public.

- Initiating an Emergency Alert System (EAS) message through King County Sheriff's Office Communication Center or their back-up, if protective actions by the public are time critical and will save lives.

- Ensuring that the OEM Staff Duty Officer is contacted as soon as possible after the initiation of an EAS message.

- Notification of the Seattle OEM Staff Duty Officer as appropriate and coordinates with the Office of Emergency Management on obtaining Mayoral approval for the release of protective action notices that do not require the initiation of an EAS message.

- Identification of specific message elements for protective action notices including defining the areas for which such notice(s) apply.

- Identification of requirements for route alerting and door-to-door warning for areas where other warning systems do not adequately reach the public.

- Coordination of the use of equipment and personnel for route alerting and door-to-door warning for scene specific notifications.

- Coordination of the development of the content of warning messages and Special News Advisories with their lead department PIO, JIC supervisor, and/or the EOC JIC as appropriate.

2 1.3   Lead Agency PIO

- Responsible for final draft of protective action notice

- Coordinates with appropriate parties (e.g. Public Safety Dispatch) to push any message out using the appropriate communication systems.

- Contacts JIC coordinator for assistance in coordinating follow up messaging.

- Coordinates with the Seattle EOC JIC when activated.

2 1.4   City of Seattle OEM

The City of Seattle OEM is responsible for:

- Sending alerts and notifications to the Emergency Executive Board, Disaster Management Committee members, and EOC Responders 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.

- Coordinates the development and dissemination of educational materials to the general public regarding the availability and use of warning systems used by the City of Seattle

2 1.5   JIC Supervisor

When contacted, leads and/or assists the lead agency PIO with:

- Dissemination of any protective action notice to the public.

- Development and dissemination of any follow up communications to the media and/or general public.

- Dissemination of any messaging over secondary communication systems.

- Establishes and manages the JIC at the EOC and ensures that the JIC can assume any public warning notification functions once it is properly staffed.

- Manages public messaging in coordination with King County JIC and other regional stakeholders, as appropriate, for timely, accurate and consistent communications.

2 1.6   Public Safety Dispatch Centers (Fire & Police)

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

- When directed, execute the delivery of messages using the AlertSeattle system.

- Forward any protective action notices to King County Sheriff's Dispatch Center, *or* the King County Office of Emergency Management Duty Officer for dissemination on EAS.

- Notify appropriate personnel per department procedures including the OEM Staff Duty Officer.

2 1.7 Department Operations Centers and Department Points of Contact

- Seattle City Light, Seattle Public Utilities and Seattle Department of Transportation have 24 hour capability and will notify appropriate department personnel per their internal protocols.

- When EOC Department Representatives receive an emergency notification from any source, they will notify appropriate personnel in their departments per their internal protocols.

2.2 Sources for Receiving Alert and Warning Information

The City of Seattle has the following systems from which it can receive warning information.

2 2.1 Federal Sources

National Alert and Warning System (NAWAS): The National Warning System (NAWAS) is an automated telephone system used to convey warnings to United States-based federal, state and local governments. NAWAS is operated and fully funded by the Federal Emergency Management Agency (FEMA). Today, the system consists of over 2,200 telephone party lines. The interconnecting lines provide some protection by avoiding local telephone switches. This ensures they are available even when the local system is down or overloaded. The City of Seattle OEM has a NAWAS phone located in the OEM office area.

National Weather Service/National Oceanic and Atmospheric Administration (NOAA) Weather Radio: The National Weather Service routinely issues weather warning messages. These messages may include instructions for citizens to immediately take measures to protect their life. Key NOAA weather messages include

- Flood/Flash flood warnings
- Tsunami warning

- Severe storm or tornado warnings
- Winter storm or blizzard warnings

- High wind warning

In addition, the weather service may issue the following warnings at the request of other agencies including (in some cases) local government:

- Civil Danger Warning
- Evacuation or Shelter-in-Place warning

- Civil Emergency Message
- Volcano Warning

- Hazardous Materials Warning

NOAA also operates the NOAA Weather Radio (NWR; also known as NOAA Weather Radio All Hazards) network. This is a network of radio stations in the United States that broadcast continuous weather information directly from a nearby Weather Forecast Office of the service's operator, National Weather Service (NWS). 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 the U.S. Federal Communications Commission's (FCC) Emergency Alert System.

National Weather Service Seattle also has permission to use the K7MMI repeater system throughout much of western Washington including King County. Local ham radio operators will help operate the amateur radio workstation on the K7MMI system at 147.20 MHz and 146.980 MHz. http://www.k7mmi.net.

2 2.2   State Systems

Comprehensive Emergency Management Network (CEMNET): CEMNET serves as the "PRIMARY" back-up communications system for direction and control of emergency operations in the State of Washington. CEMNET is a low band VHF system employing twelve (12) remote mountaintop base stations. The 12 stations are operated and controlled at the state Emergency Operations Center (EOC) through the Washington State Patrol microwave radio system

Seattle is assigned to the Northwest Regional Channel (F1-45.20MHz)

The Central Computerized Enforcement Service System (ACCESS): ACCESS is a web-based data network supporting state and local law enforcement agencies. This network is managed by Washington State Patrol (WSP) and is supported statewide through the WSP microwave radio system and leased circuits. ACCESS is employed by the state EMD for dissemination of warning, alert, and notification information to local jurisdiction emergency managers. EMD ACCESS terminal addresses are OLYEM or OLEM2.

2 2.3   King County/Region 6

Regional 800 MHz Radio Communications: The Seattle/King County Regional 800 MHz Trunked Radio System is comprised of interconnected sub regional analog trunked radio simulcast cells and intellirepeaters owned by the City of Seattle and other regional jurisdictions. The system supports approximately 14,000 radio users throughout King County, including police, fire, EMS, general government services, school districts and utilities, with the ability of radio users to communicate with their counterparts even while "roaming" outside their home area by connecting to other sub regional simulcast cells and intellirepeaters participating in the regional system. The system includes talk groups dedicated for emergency management use which can be used to convey (or receive) warning information as well as coordinate activities within and between agencies.

King County Flood Warning System: This system warns residents and agencies of impending floodwaters on major rivers so they can take action and prepare themselves before serious flooding occurs. In most locations, the warning system provides at least 2 hours lead time before floodwaters reach damaging levels.

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.

Regional Public Information Network (RPIN):   The Regional Public Information & Notification (RPIN) system is a subscriber-based public alert resource for residents to stay informed about severe weather forecasts, health risks, safety advisories, and emergency situations impacting the King County region. Registration is free and alerts are sent by email, mobile text, and/or voice.

Jurisdiction-to-jurisdiction communications: Neighboring jurisdictions routinely share information with the City of Seattle. In cases involving public safety agencies, this information it typically shared from dispatch center to dispatch center. Information may also be shared through a system of Emergency

Management Duty Officers. The City of Seattle has a 24 hour Duty Officer number which can receive messages at any time, day or night. This process can be used to share information (including warning information) between emergency management offices and EOC's in the county. Public information coordination is a function of the Joint Information Center in support of regional messaging that is timely, accurate and consistent, as well as accessible by the diverse populations we serve.

2.2.4 Local Sources

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.

City Departments: In the course of their normal operations also utilize an 800Mhz radio system that can be used to provide those employees with protective action information during emergencies.

Public Safety Dispatch & 9-1-1 Center: Public safety dispatch and 9-1-1 centers serve as the first link between citizens and emergency services. Citizens can be the first ones to bring an event or emergency to the attention of emergency services. Additionally, Seattle Police Communications has access to the National Law Enforcement Telecommunications System (NLETS) which can be used by State and Federal authorities to convey warning information.

Seattle Staff Duty Officer (SDO): The SDO serves as the 24 hour point of contact for the Office of Emergency Management. The SDO can be used for both receiving and disseminating public warning information between government agencies. The SDO is rotated among a roster of staff members from within the OEM.

2.3 Systems Used for Disseminating Alert and Warning Information

At the incident commander's discretion, the public may be warned by route alerting using vehicles equipped with sirens and public address systems. 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.

In addition to the field notification methods (door-to-door, public address system), the following communication tools are available for disseminating public warning information to the populations within the City of Seattle:

2.3.1 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, e-mails or voice calls. The City uses the system to alert both the public and city employees and will work similarly for both audiences:

- Public – The notification system allows the City to issue a city-wide alert message, reaching everyone who has 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.

- Employees - Emergency warning messages can be sent to City employees with notifications concerning campus-wide events or targeting messages to a specific building or even a floor of the building. Messaging can be sent to a smart phone, e-mail, flash alerts to computer screens and the building's public address system.

AlertSeattle will eventually incorporate the ability to send Wireless Emergency Alerts which is managed by the Department of Homeland Security and is described in greater detail below.

2 3.2   Emergency Alert System (EAS)

The Emergency Alert System (EAS) is intended to provide a means for government to provide emergency warning and instructions to the public. The City of Seattle receives EAS messages that contain warning information broadcast by Federal, State, or local government authorities.

As a condition of licensing, all commercial radio and television stations and cable television companies must participate in EAS and use their facilities to relay warning and instructions from government to the public. Broadcasters and cable companies must carry national security warnings and messages initiated by the President of the United States; they may broadcast alerts and messages initiated by state and local governments. The Federal Communications Commission encourages licensees to broadcast state and local warning and instruction messages, but the final decision on broadcasting such messages rests with the broadcaster.

KIRO/KOMO TV are the local primary stations for EAS broadcasts. All broadcasters monitor for original or relayed EAS messages, including from NOAA Weather Radio stations. The City of Seattle accesses EAS through the King County OEM Duty Officer or King County Emergency Coordination Center (ECC) if activated.

2 3.3   Wireless Emergency Alerts (WEA)

WEA, formerly known as the Commercial Mobile Alert System (CMAS), and prior to that as the Personal Localized Alerting Network (PLAN), is an alerting network designed to disseminate emergency alerts to mobile devices such as cell phones and pagers. WEA allows jurisdictions at all levels of government to send public warning alerts to participating wireless providers who will distribute the alerts to their customers with compatible devices via Cell Broadcast, a technology similar to Short Message Service (SMS) text messages that simultaneously delivers messages to all phones using a cell tower instead of individual recipients. There are three different kinds of alerts:

- Presidential Alerts – Alerts issued by the President or a designee;

- 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; and

- 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.

2 3.4   Commercial Radio and TV

A significant percentage of the public still receives news from commercial radio or TV. Seattle has 10 TV and 11 major radio stations. In addition to EAS, Seattle has methods for communicating directly with news desks of most stations using normal communication channels and the internet.

2 3.5   Social Media/Websites

The City utilizes a number of different social media tools for communicating with stakeholders. Seattle departments operate their own blogs and/or twitter pages. The City has policies and capabilities in place to be able to push information from a central point to all of these pages to ensure consistent messaging in an emergency.   Additionally, the City home page has the capability of hosting "alert" messages which are prominently displayed on the home page. There is also a page dedicated to hosting alert messages during times of emergency.

2 3.6   Seattle Channel

Seattle Channel is a government-access cable channel that is a part of the City of Seattle's Department of Information Technology.   Programming decisions are based on content and are made independent of the Mayor and Seattle City Council. However, procedures are in place so that the channel can be used by the EOC's Joint Information Center during emergencies. Seattle Channel is on cable television channel 21 on Comcast (321 HD) and Wave (721 HD) to cable subscribers in Seattle. Programming is also available live on the web (www.seattlechannel.org).

2 3.7   NOAA Weather Radio

The NOAA weather radio system allows for transmission of emergency information on a nationwide system of transmitters that broadcast weather information 24 hours a day. 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 National Weather Service (NWS) operates the NOAA All-Hazards Network and is now used by the U.S. Department of Homeland Security (DHS) to send critical all-hazards alerts and warnings. 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 persons who may be using computer software 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.   EAS broadcasts will also be picked up and carried over the NOAA radio network.

2 3.8   Dispatch Center Computer Aided Dispatch (CAD)

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

2 3.9   City Issued Pager

A number of employees with the City of Seattle carry alpha-numeric pagers which can be used by dispatch centers to send notices to various branches of individuals including departmental and special branch call pagers.

2 3.10 Email Distribution Lists

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

2 3.11 Variable Message Signs

Variable Message Signs (VMS) are electronic traffic signs used on roadways 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 has access to a number of fixed and mobile signs that can be strategically placed along roadways around the City.

2 3.12 Highway Advisory Radio

Travelers Information Stations (TIS), also called Highway Advisory Radio stations (HAR) 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.

3. CONCEPT OF OPERATIONS

3.1 Actions by Phases

3 1.1 Normal Operations

Normal operations involve any mitigation and preparedness activities associated with employee notification or public warning. This includes activities that take 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 the ways in which they may receive information and what they should do when they receive a protective action notice.

- Ensure that notification groups and employee information is regularly updated.

- Conduct regular testing of employee notification and public warning systems and correct deficiencies as soon as possible.

- Conduct training and exercises that include the use of notification and warning systems.

- Evaluate new communication technologies that could enhance public warning capabilities.

- Routinely assess methods by which the public receives information and assess how any changes might impact their ability to receive or process protective action notices.

- Update and/or revise the Alert and Warning Annex to the CEMP.

3 1.2   Response

Response begins when there is awareness that an incident or event may occur or is already in progress. This includes any pre-event activities that may be undertaken prior to the onset of conditions or the event and consists of the following major tasks:

- Gain and maintain situational awareness.

- Establish a Joint Information System.

- Activate the Emergency Operations Center and Joint Information Center when necessary.

- Identify and notify personnel that develop and initiate emergency public information.

- Disseminate emergency information over multiple communication systems as appropriate.

- Provide emergency information to the public in accessible formats.

- Gather, coordinate, prepare, obtain authorization and release accurate information to the public in support of all facets of emergency operations.

- Manage public inquiries and rumors.

- Demobilize and/or reassign resources threat are no longer necessary for emergency public information operations.

- Capture incident costs associated with emergency public information operations.

3 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:

- Inform the public about recovery processes and programs.

- Submit and close out reimbursement claims for operations related to emergency public information.

- Conduct after action review of regional emergency public information operations and submit After Action Review and Corrective Action/Improvement Plan.

3.2   Warning Dissemination Strategy

The lead agency for the hazard is responsible for the development and issuance of the protective action notice.   In most cases this falls to the scene incident commander unless otherwise specified.   The incident commander may delegate portions of the process to their department's PIO.

Once the decision is made to issue a protective action notice, the incident commander or department lead shall:

- Coordinate with their department's lead public information officer to ensure that the proper elements are provided, and included in any protective action notice.

- Review and approve specific message elements that will go into any protective action notice.

- Ensure the final notice is delivered to the point for dissemination using the identified system.

The Seattle EOC Joint Information Center may assume the responsibility of managing the development and issuance of any protective action notices once staff is in place. Any transfer of responsibilities will be approved by the Incident Commander and EOC Director prior to taking place.

A public information officer or other authority designated by the incident commander will be responsible for crafting of the warning message. In some cases multiple messages may need to be created in order to meet restrictions of various warning systems.

A diagram for the processing of a protective action notice can be found in Appendix 4.

3 2.1   Authorization to Release a Protective Action Notice

As the Chief Elected Official, the Mayor has the ultimate authority on whether or not to issue a protective action notice to the public. However there will be instances where, due to factors such as time or accessibly, 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 a protective action notice rests with the following individuals (in order of authority):

1. The Director or Chief whose department is the designated lead for the hazards listed in the CEMP-Base Plan Section IV, C, 1.

2. If applicable, the on-scene Incident Commander whose department is the designated lead for the hazards listed in the CEMP-Base Plan Section IV, C, 1.

In cases where the event involves a community-wide emergency or other unique incident, decisions regarding public warning and protective action notices will be made at the EOC. In these situations, the determination to take protective actions will be made by a group of ESF leads at the EOC and led by the EOC Director. At a minimum, this group will consist of the senior EOC representatives present from Seattle Police, Seattle Fire, Seattle OEM (as the EOC Director), and Seattle Transportation. Should the EOC not be activated at the time, the Seattle Staff Duty Officer will coordinate the convening of a conference call (or meeting) of the key decision makers listed above to make the recommendation to the Mayor regarding the issuing of a protective action notice.

3 2.2   Selection of Warning Systems

Warning Areas Less Than 12 Square Blocks

The following systems will be used whenever a protective action notice is issued to an area that exceeds the capacity for field units to carry out, but involves an area less than 16 blocks (one mile):

- Alert Seattle

- Social Media (e.g. twitter)

It will be the responsibility of the lead PIO, in conjunction with the JIC Coordinator (as designated by the Mayor's Communication Director) to assess the use of other possible communication systems that could be used to carry the message. A list of possible systems can be found in Appendix 3.

Warning Areas Greater Than 12 Square Blocks

The following systems will be used whenever a protection action notice is issued to an area in excess of 16 blocks (one mile):

- Alert Seattle

- Social Media (e.g. twitter)

- Emergency Alert System (through King County Sheriff or King County OEM Duty Officer)

It will be the responsibility of the lead PIO, in conjunction with the JIC Coordinator (as designated by the Mayor's Communication Director) to assess the use of other possible communication systems that could be used to carry the message. A list of possible systems can be found in Appendix 3.

The use of field notifications such as door-to-door and public address systems are carried out at the discretion and approval of the incident commander or unified command, if established.

3 2.3   Development of Warning Message Elements

In all cases, a subject matter expert (or experts) **for the lead agency** will develop the following elements of information for warning messages:

- Describe the nature of the threat and anticipated impact to the public.

- Determine the area to be warned.

- Define the protective action to be taken (i.e. evacuate, shelter-in-place, etc.). In the case of evacuation the subject matter expert will identify the egress routes.

- Identify a "rally point" or a safe location where evacuees can assemble outside of the evacuation zone.

- Set a valid start and end time.

3 2.4   Guidance for Truncating Messages

In cases where the message size must be reduced to meet the limitations of the communication system, PIOs should attempt to place the following elements in the outgoing message (in order of priority):

- Nature of the threat

- Location of the threat

- Source to get more information (e.g. tune to media for more information)

Additional elements should be included (if possible) in the following order:

- Protective action to be taken

- Geographic area to be evacuated.

- Evacuation routes

- Anticipated impacts to the public.

3 2.5   Final Message Approvals & Release

The PIO of the lead agency is responsible for the final message development and release of protective action notices until such time is the Joint Information Center in Seattle EOC is staffed. Once staffed, the EOC JIC assumes responsibility for managing the development of messages and their release.

The lead department will utilize existing departmental policies and procedures for ensuring that the SUBJECT MATTER EXPERT and PIO are able to conduct two way communications for the purpose of developing and issuing protective action notices.   Procedures should include multiple ways for communicating. In most cases messages will be communicated to department dispatch centers that will then disseminate the messages.

3.3   Updating and/or Cancelling Protective Action Notices

Updates to protective action notices should always 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 protective action notice.

- The notice is extended or cancelled.

The lead PIO will contact and then coordinate with the EOC JIC supervisor to ensure that the any updates or cancellations of protective action notices are communicated using the appropriate systems. The JIC Coordinator may be supported by other PIOs or a qualified Seattle Staff Duty Officer as needed.

Consideration should be given to using *all* of the same systems that were used for the initial notification.

The EOC JIC will take responsibility for updates and cancelations once the JIC is sufficiently staffed.

3.4   Compliance Monitoring

Several methods will be used to monitor public compliance with protective action notices. Methods used can include:

- Monitoring of traffic cameras from either Washington Department of Transportation or Seattle Department of Transportation.

- Use of spotters (e.g. ACS or CERT volunteers) located along evacuation routes to relay information

- Monitoring of media outlets and live television feeds.

- Use of air assets from King County, the State of Washington, or the Civil Air Patrol.

Compliance monitoring will be managed by the Seattle EOC.

3.5   Coordination with Neighboring Jurisidictions

There will be times when a warning issued by the City of Seattle will impact other jurisdiction. In the event a public warning statement extends into another jurisdiction, the issuing agency will coordinate with the Local Warning Point (LWP) of a neighboring jurisdiction or county whenever warning statement has the potential to impact the population of that neighboring jurisdiction by the following means:

1. Direct coordination with the public safety dispatch center of the effected jurisdictions.

2. Through the OEM Staff Duty Officer who will then facilitate contact and coordination with King County OEM. These agencies will, in turn coordinate directly the emergency manager of the effected jurisdiction. The Seattle EOC may assume the responsibility of coordination once it is activated and staffed.

3.6   Warning Considerations for Populations with Access and Functional Needs

Any protective action notice will almost certainly include individuals who have access and functional needs. These needs will vary in their degree, and a variety of communication systems will need to be used. The following are considerations that should be used when selecting additional methods for public warning events. Users should note the system disadvantages found in Appendix 2 when selecting a system.

3 6.1   Deaf/Hard of Hearing

The following are potential communication solutions that are specific to the hard of hearing.

- Closed captions
- Television crawls that do not block the captions
- American Sign Language
- Personal warnings
- Loop technology in public address systems
- Email
- Social media such as Facebook and/or Twitter

Seattle communication systems which encompass at least one of these options are:

- Door-to-door notification

- Street-by-street public address systems

- AlertSeattle

- EAS

- Wireless emergency alerts

- Commercial radio and TV

- ADA Accessible Websites

- Email distribution lists

- NOAA Weather Radio

- Highway Advisory Radio

- Seattle Channel

- Social and online media

3 6.2 Blind/low vision

The following are effective communication solutions that are specific to those who are blind or have low vision:

- Auditory alerts
- Large print
- Braille
- Video description
- Text-to-speech
- Raised print signs
- Accessible websites (i.e. screen-reader friendly)

Seattle communication systems which encompass at least one of these options are:

- Door-to-door notification

- Street-by-street public address systems

- AlertSeattle

- EAS

- Commercial radio and TV

- ADA Accessible Websites

- NOAA Weather Radio

- Highway Advisory Radio

- Seattle Channel

3 6.3 Deaf-blind

The following are effective communication solutions that are specific to those who are deaf and blind:

- Personal warnings
- Bed shakers
- Vibrating pagers
- Rewritable braille machine

Seattle communication systems which encompass at least one of these options are:

- Door-to-door notification

- EAS

- Commercial radio and TV

- (city issued) pager

- ADA Accessible Websites

3 6.4   Cognitive & Developmental Disabilities

The following are effective communication solutions that are specific to those who have intellectual or developmental disabilities:

- Plain language/instructions
- Picture boards
- Instructions for caregivers.
- Television media

Seattle communication systems which encompass at least one of these options are:

- Door-to-door notification

- Media (re)broadcasts of messages

3 6.5   Psychiatric Disabilities

The following are effective communication solutions that are specific to those who have psychiatric disabilities:

- Plain language/ instructions
- Instructions treatment

Seattle communication systems which encompass at least one of these options are:

- Door-to-door notification

3 6.6   Limited English Proficiency

The following are effective communication solutions that are specific to those with limited English proficiency:

- Simple language/instructions
- Picture boards
- Interpreters for people with LEP
- Translated information

Seattle communication systems which encompass at least one of these options are:

- Door-to-door notification

- Street-by-street public address systems

- AlertSeattle

- Commercial radio and TV

- ADA Accessible Websites

- Email distribution lists

- Seattle Channel

4. ADMINISTRATION AND MAINTENANCE

The Office of Emergency Management is responsible for revisions and updates to this annex. Revisions and updates are incorporated into the City's Emergency Management Strategic Plan.

4.1 Record Keeping

Responding departments should maintain records of protective action notices, press releases, warning logs, and other relevant materials related to the incident. If time and resources permit, consider keeping a record of individual and neighborhood notifications. Seattle OEM will maintain a record of all WebEOC entries and sign in sheets for the EOC operations supporting the incident.

4.2 Post Incident Review

The Seattle CEMP Base Plan, Section IV. D, outlines the process to be used to ensure a proper after action review is conducted for all EOC activations and significant events. A standard template of questions is asked for all incidents. In addition to that consideration should be given to evaluating the concepts in this plan. Specific elements to consider in any post incident evaluation include:

- The appropriate use and effectiveness of communication tools.

- The appropriate mix of communication tools.

- Assessment of public compliance with issued protective action notices.

- The process for assessment, development, and communication of protective action notices between the various elements in the field and off site (such as dispatch centers).

- Appropriate assignment of responsibilities.

- The effectiveness of collaborating with neighboring jurisdictions, schools , and businesses.

- The effectiveness of messaging to populations with access and functional needs.

- The process for determining and communicating reentry once the emergency had concluded.

4.3   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 Alert Seattle 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.

5. APPENDIX 1 – SAMPLE WARNING MESSAGES

5.1 Warning-Shelter-in-Place

Date: _____   Time: _____

The City of Seattle _____ (name of department ordering the evacuation) advises the public to EVACUATE In an area of (part of the City) _____ **due to a** (type of incident) _ _____

located at (location)_____.

The following streets border this area:

On the North: _____

On the East: _____

On the South: _____

On the West: _____

Due to the nature of this situation, you must act IMMEDIATELY!

(Shelter In Place Issues, Check All Applicable)

If you are located in this area, do the following immediately in order to protect yourself:

☐ Go inside your home, workplace, or the nearest building that appears to be reasonably air tight and stay there. Take your pets with you.

☐ Close all doors, windows, and any fireplace dampers.

☐ Turn off any heating or cooling system that draws in air from the outside.

☐ Keep your radio on and tuned to receive emergency announcements and instructions.

☐ Gather items that you may need to take with you if you are advised to evacuate.

☐ People traveling in vehicles should seek shelter in the nearest air tight structure. If a suitable structure is not immediately available, travelers should roll up car windows, close air vents, and turn off the heater or air conditioner until they reach a suitable building.

☐ If shelter is not immediately available, keep a handkerchief, towel, or damp cloth snugly over your nose and mouth until you get indoors.

☐ Students at the following school(s) are taking shelter at their schools: _____. Parents should not attempt to pick up students at school until the hazardous situation is resolved and they are advised it is safe to do so.

If you know of any neighbors or co-workers with hearing or language problems or other communication needs, please advise them of this message.

**DO NOT CALL 9-1-1 UNLESS YOU HAVE AN EMERGENCY THAT REQUIRES POLICE, FIRE, OR EMS RESPONSE.
MONITOR THE RADIO AND TELEVISION FOR UPDATES.**

Shelter In Place Area Map or Sketch:

5.2   Warning –Evacuation

Date: _____   Time: _____

The City of Seattle _____ (name of department ordering the evacuation) advises the public to EVACUATE In an area of (part of the City) _____ **due to a** (type of incident) _ _____

located at (location)_____.

The following streets border this area:

On the North: _____

On the East: _____

On the South: _____

On the West: _____

Due to the nature of this situation, you must act (immediately, within the next 6 hours, etc.)_____.

(Evacuation Issues, Check All Applicable)

☐   **Persons in the evacuation area should use their own transportation to immediately leave the area and seek shelter with friends or family.**

☐   **Persons needing shelter may report to** (shelter or marshaling area name and address)_____.

☐   **Buses will be available to pick up anyone who needs transportation to the shelter.**

☐   **You may need to stay out of the area for as long as** (timeframe, if known) _____.

☐   **If you need special items such as eyeglasses, prescription drugs, special medical equipment, or diapers, take them with you. Do NOT re-enter the evacuation area or delay your evacuation to get these items.**

☐   **Persons with a disability, who cannot leave the area should call _____to request emergency transportation. This number is** <u>only</u> **for emergency transportation requests.**

☐   **Students at the following school(s) are being evacuated: _____.   Parents are advised to listen to radio or TV for information on where they may pick up their children.**

(Shelter-In-Place Issues, Check if Applicable)

☐**Persons who are in the above area should stay inside, close all windows and doors and shut off all ventilation such as air conditioners and furnaces.**

☐   **Bring pets inside.**

 (Additional Instructions)

_____
_____
_____

Persons in areas surrounding the evacuation zone should monitor the media for details and updates.

Citizens should use text messaging instead of cell phone calls whenever possible to keep lines open for emergency calls

DO NOT CALL 9-1-1 UNLESS YOU HAVE AN EMERGENCY THAT REQUIRES POLICE, FIRE, OR EMS RESPONSE. MONITOR THE RADIO AND TELEVISION FOR UPDATES.

Evacuation Area Map or Sketch:

5.3   Supplemental Evacuation Information

The City of Seattle has issued the following advisory for those who live, work, or are visiting in City of Seattle.

Due to the threat of _____, the Seattle _____ recommends that people who live, work or are visiting inside the following area should evacuate to protect their health and safety:

[Describe area boundaries.]

Use the following evacuation routes: [list evacuation routes]

You should take the following emergency supplies with you :

- clothing for your family for several days
- bedding, pillows, and towels for each family member
- prescription medicines, list of prescribing doctors and their contact number(s)
- Spare eyeglasses
- soap and toiletries

- baby food and diapers
- address book or list of important telephone numbers
- checkbook, credit cards, and cash
- driver's license and identification cards
- portable radio and flashlight, with extra batteries

Plan where you will stay until the emergency situation is resolved. Staying with relatives or friends or in a hotel or motel is a good choice. If you cannot find another place to stay, temporary public shelters will be/have been opened at:

Take your pets with you, but make sure you bring a leash, crate, or cage for them as well as pet food.

Secure your property before you depart. Shut off all appliances, except refrigerators and freezers. Lock all doors and windows.

Expect travel delays on evacuation routes. If you have a substantial distance to drive, you may want to take drinks and ready-to-eat food in your car in case you are delayed.

If you have no means of transportation or if you are physically unable to evacuate on your own, ask a neighbor to help you.

If you have neighbors or co-workers, who need help or do not have transportation, offer to assist them if you can.

If you know of any neighbors or co-workers with hearing or language problems or other communication needs, please advise them of this message.

Please do not use your telephone except to report a true emergency. Stay tuned to this station for more information and instructions from local officials. If you missed some of the information in this advisory, it will be broadcast again soon.

APPENDIX 2 – EAS CHECKLIST

The following is a checklist for utilizing EAS. The King County Sheriff's Office 9-1-1 Dispatch Center will initiate all EAS messages on behalf of the City of Seattle.

1. Verify the emergency and ensure that it meets all of the following criteria:

    a. Lives are in danger.

    b. Direction provided via EAS has the potential to save lives.

    c. Effective warning cannot be accomplished by other means.

2. Identify corresponding Event Code

3. Determine whether or not a voice message is needed

4. Following instructions specific for your location and equipment, program the EAS encoder with Source, Event Code, Location, Duration, etc.

5. Where applicable, include the following information in the voice message:

    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. If evacuation is required, identify the hazard area and specify desirable transportation routes or direction of travel for evacuees

    h. Reassurance that officials are addressing the incident

    i. A statement encouraging people to avoid using telephone systems for the first few hours except for life threatening emergencies

    j. Advise the public to listen to their local news radio station for more emergency information.

6. Verify that the Internet infrastructure is working or that the Local Relay Network radio channel is not in use and no corresponding EAS messages have been received from another agency.

7. Transmit the message.

8. Verify that the message was transmitted. 5-4

9. Keep a record of all message transmissions

APPENDIX 3 – WARNING COMMUNICATIONS SYSTEMS MATRIX

Method	Home	Work	In Transit	Our Words	Our Time	Attention to Device Required	Advantages	Disadvantages	Activation Method	Message Size Limitations
Door-to-Door Notification	Yes	Yes	No	Yes	Yes	No	Confirms that public has received notification Verifies who is still in the evacuation zone Able to answer questions and clarify information	Time consuming Very staffing intensive Personnel may not be able to access sites (security, etc.) People may not be receptive or trusting of someone coming to their door. Potentially places personnel at risk Information is limited to personnel's knowledge Need process to transport, track and update personnel Personnel may not speak language of message recipients	On-site personnel	None

Method	Home	Work	In Transit	Our Words	Our Time	Attention to Device Required	Advantages	Disadvantages	Activation Method	Message Size Limitations
Street-by-Street Public Address Systems	Yes	Some	No	Yes	Yes	No	Reaches public that is not monitoring the media or have a phone	Staffing intensive Message may be "Garbled" or difficult to understand Message may not be heard by all Message may not be trusted	On-site personnel	None, however message length need to be short as possible due to movement of the broadcast vehicle relative to the person receiving it.
Commercial Radio and TV	Yes	Yes.	Yes.	No	No	Yes – TV/ radio	Source is widely used by public.	Information is at Broadcaster's discretion. Information is heavily filtered.	City PIOs EOC	None
Websites Social Media	Some	Some	Some	Yes	Yes	Yes-Computer/ Internet	Can provide detailed and written information to media and public Can provide links to supporting information Quickly updated.	Public must have internet access Retweets can cause confusion with message as time goes on.	City PIOs EOC	Twitter: 140 characters Others: variable but less restrictive than twitter.

Method	Home	Work	In Transit	Our Words	Our Time	Attention to Device Required	Advantages	Disadvantages	Activation Method	Message Size Limitations
Alert Seattle	Yes	Yes	Some	Yes	Yes	Yes	Gets our words directly to public Can be used in emergency and non-emergency situations Uses 9-1-1 database as well as registered contact devices. Conveys both voice and text messages that can be received by both limited sight and hearing populations.	Individuals must register contact device online Public must have working contact device Some communications systems require power to work (e.g VOIP) Simultaneous call limitations	Authorized Users	Phone Text: 160 characters Email: 1000 characters (short) 9948 characters (long) Text-to-Voice: 3000 characters
Emergency Alerting System (EAS)[1]	Yes	Yes	Some	Yes	No	Yes- Radio or TV on	Broadcasts information over area broadcasters who participate.	Used only in emergency situations (immediate threat to lives) Broadcasters must agree to carry information Can only be accessed through King County.	King County OEM	Maximum of 2 minutes

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[1] The integrated Public Alert and Warning System (IPAWS) provides the capability of simultaneously disseminating alert messages over the following systems: EAS, Wireless Emergency Alerts, and NOAA Weather Radio. Currently both King County OEM and the State of Washington DEM have IPAWS.

Method	Home	Work	In Transit	Our Words	Our Time	Attention to Device Required	Advantages	Disadvantages	Activation Method	Message Size Limitations
Wireless Emergency Alerts (WEA)[2]	Yes	Yes	Some	Yes	No	No – Must hear cell phone	Doesn't require cell phone registration to receive message. Can designate an area smaller than a county. Can "punch through" cell congestion Text message can be received by certain limited sight and hearing populations	Used only in emergency situations (immediate threat to lives) Allows for only VERY short messages. Limited when there is damage to cell infrastructure. May not reach all cell phones Can only be accessed through King County (IPAWS)	King County or State (via EAS)	Maximum of 90 characters
NOAA Weather Radio	Yes	Yes	Limited	Yes	Yes	Yes- NOAA Radio	Alerts individuals and businesses with an audible warning tone. NOAA radios can receive notifications during power outages	Must have NOAA radio set to alert. Requires power or battery	PIO's via NWS EOC via NWS EAS*	None

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[2] Alert Seattle will be used to send WEA messages starting no later than January 1, 2016. IPAWS through King County will become a secondary (backup) means of communication once that capability is live in Alert Seattle

Method	Home	Work	In Transit	Our Words	Our Time	Attention to Device Required	Advantages	Disadvantages	Activation Method	Message Size Limitations
City Issued Pager	Yes	Yes	Yes	Yes- to users	Yes- to users	Yes- Pager	Immediately notifies City employees with a pager.	Message is brief and not detailed Reaches only those monitoring and who have a pager	??? Public Safety Dispatch Centers	240 characters
Email Distribution Lists	Yes	Yes	No	Yes	Yes	Yes	Conveys our messages in its entirety. Can include maps or other images with messaging.	User must access to, and be checking email	OEM SDO EOC Public Health CCN	None
Variable Message Signs	No	No	Yes	Yes	Yes	Yes	Reaches vehicles in Transit There are both fixed and portable message signs that can be deployed to specific locations Good tool for broadcasting follow up messages.	Drivers have to see message as they are driving. Portable message signs take time to position and setup.	SDOT	Portable Message Signs = 48 characters (including spaces) Fixed, roadside boards = 96 characters

Method	Home	Work	In Transit	Our Words	Our Time	Attention to Device Required	Advantages	Disadvantages	Activation Method	Message Size Limitations
Highway Advisory Radio	Some	Some	Some	Yes	Yes	Yes – Must be tuned to radio station	Portability allows for our message to reach targeted areas in the affected areas. Effective way for pushing updates to emergencies.	Takes time to set up. Public must first be told to listen to specific radio station and have working radio.	SDoT	
Seattle Channel	Yes	Yes	Yes	Yes	Yes	Yes – Must have TV and Cable, internet, or mobile device	Allows for direct control of messaging and the posting of updates	Users will have to have cable and a working TV to and/or Internet connection access.	Seattle Channel Staff EOC JIC	None

APPENDIX 4 - ISSUING OF WARNING INFORMATION – PROCESS CHART

Event

OEM SDO Notified

EOC ACTIVATED

Initial Response & Size-up

Lead Agency PIO Notified

Complete Emergency Communications Plan
--
Select Systems Notify Contacts

Public Safety Dispatch

| Alert Seattle | Prep Messages for System(s) | Disseminate Message |
| EAS | Prep Messages for System(s) | Disseminate Message |

Coordinate Follow-up Messages

Assess Compliance

IC Decision Made To Issue PAN

SME Crafts Message Elements

JIC Supervisor/PIO's

| Other Systems | Prep Messages for System(s) | Disseminate Message |

Coordinate Follow-up Messages

IC Approves Message Elements

Refine & Execute Door-to-Door notification plan

Commence development of Door-to-Door Notification Plan

Are their sufficient resources?

YES

NO

Can additional resources be obtained from agencies at the CP?

YES

NO

Can resources be obtained from the EOC or SDO.

YES

NO

Reassess Plan

Assess ability to deliver field notifications *(safety, time)*

Commence development of Rolling PA Notification Plan

Are their sufficient resources?

NO

YES

YES

YES

Refine & Execute Rolling PA notification plan