Ensuring a safe and secure homeland for all North Dakotans

STATE ALERT AND WARNING PLAN

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2017

North Dakota State Alert and Warning Plan

Prepared by:

North Dakota State Emergency Communications Committee

In coordination with

North Dakota Department of Emergency Services

NOAA National Weather Service

North Dakota Broadcasters Association

NORTH DAKOTA STATE ALERT AND WARNING PLAN

INTEGRATED PUBLIC ALERT AND WARNING SYSTEM (IPAWS)
EMERGENCY ALERT SYSTEM (EAS)
WIRELESS EMERGENCY ALERTS (WEA)
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NON-WEATHER EMERGENCY ALERTS (NWEM)

LEAD AGENCIES: N.D. Department of Emergency Services (NDDES)
Division of Homeland Security (NDHLS)
Division of State Radio (NDSR)

SUPPORT AGENCIES: Information Technology Division (ITD)
N.D. Department of Transportation (NDDOT)
National Oceanic and Atmospheric Administration (NOAA)-National Weather Service (NWS)
N.D. Broadcasters Association (NDBA)
Federal Communications Commission (FCC)
Federal Emergency Management Agency (FEMA)
State Emergency Communications Committee (SECC)

1. SITUATION

A. Scope.

This plan provides procedures for authorization and dissemination of alert and warning information through implementation of the Integrated Public Alert and Warning System (IPAWS) in North Dakota. The plan documents policy and procedures agreed upon by the North Dakota Department of Emergency Services (NDDES) and will permit authorized public safety officials to issue emergency information, instructions, and warnings to the general public within their jurisdictions by activating IPAWS.

B. Legal Basis.

This plan is an adjunct to the FCC Electronic Code of Federal Regulations (e-CFR), Title 47: Telecommunication, Parts 10 and 11: Wireless Emergency Alerts and Emergency Alert System, and is not meant to be a summary, in whole or in part, of those rules. Consult FCC e-CFR Rules Title 47, Parts 10 and 11 for complete rules regarding Wireless Emergency Alerts and the Emergency Alert System (EAS). Executive Order 2002-06, issued by the Governor, orders use of the EAS during AMBER Alert activations. Additional authoritative information for this plan is garnered from the following policies and legislations:

Governor Executive Order 2002-06. AMBER Alert system.

The Highway Patrol, in cooperation with the NDDES (formerly known as the Division of Emergency Management), State Radio, and other state agencies, were directed by Governor John Hoeven to implement a statewide AMBER Alert system by January 1, 2003.

North Dakota Century Code 54-12.32. Blue Alert notice system.
The Bureau of Criminal Investigation, in cooperation with the Highway Patrol and the Division of State Radio of the Department of Emergency Services, shall prepare an operational plan to prepare for and respond to requests for activation of a Blue Alert notice.

North Dakota Century Code 39-03. Silver Alert notice system.
The Superintendent of the Highway Patrol, in cooperation with the Bureau of Criminal Investigation and the Division of State Radio of the Department of Emergency Services, shall establish a Silver Alert notice system to activate an urgent bulletin using the Emergency Alert System to air a description of a disabled adult or vulnerable elderly adult as defined in section 12.1 - 31 - 07 or a minor who has a developmental disability as defined in section 25 - 01.2 - 01, who has been reported to law enforcement as missing and to aid in the location of that individual.

North Dakota Century Code 37-17.1-13. Communications.
The Department of Emergency Services shall ascertain what means exist for rapid and efficient communications in times of a disaster or emergency. The department shall consider the desirability of supplementing these communications resources or of integrating them into a comprehensive state or state and federal telecommunications or other communications system or network, including military installations. In studying the character and feasibility of any system or its several parts, the department shall evaluate the possibility of multipurpose use thereof for general state and local governmental purposes. The department shall make recommendations to the governor as appropriate.

Federal Policies and Legislations.
- Presidential Memorandum, “Emergency Alert System Statement of Requirements”, September 15, 1995;
- Executive Order 13407, Public Alert and Warning System, June 26, 2006
- Warning, Alert, and Response Network (WARN) Act, October 13, 2006
- National Security Presidential Directive 51(NSPD-51)/Homeland Security Presidential Directive-20 (HSPD-20), “National Continuity Policy”, May 9, 2007
- National Preparedness Report, March 30, 2014
- Integrated Public Alert and Warning System Modernization Act of 2015

C. Situation Overview. On June 26, 2006, President George W. Bush signed Executive Order 13407 (Public Alert and Warning System) stating, "It is the policy of the United States to have an effective, reliable, integrated, flexible, and comprehensive system to alert and warn the American people....and to ensure under all conditions the President can communicate with the American people." In response to this order the Federal

Emergency Management Agency (FEMA) established the Integrated Public Alert and Warning System (IPAWS).

Integrating Public Alert and Warning Systems

IPAWS allows the President of the United States to speak to the American people under all emergency circumstances. IPAWS also enables authorized federal, state, tribal, and local officials to access multiple broadcast and other communications pathways for the purpose of creating and activating alert and warning messages related to any hazard impacting public safety and well-being over multiple communication pathways before, during, and after an emergency. The system provides an interoperability framework through the use of Common Alerting Protocol (CAP) standards. It enables those with disabilities and those without an understanding of the English language to receive alerts and warning notification through devices currently used by vulnerable populations. This is not a mandatory system and it does not replace existing alert methods. North Dakota incorporates IPAWS into the state's existing alert and warning structure through a Memorandum of Agreement (MOA), which governs the relationship between the state–level Collaborative Operating Group (COG) and FEMA. IPAWS provides North Dakota with the capability to integrate alert and warning systems with the national alert and warning infrastructure. Consequently, IPAWS increases the capability and options available to state and local officials by which life-saving information can be distributed during a crisis, providing people with the information they need to protect themselves, their families, their communities, and their property.

In North Dakota, EAS responsibilities have been shared by the North Dakota Department of Emergency Services, National Weather Service (NWS), and the North Dakota Broadcasters Association (NDBA) since the inception of EAS in the 1990s. NWS has been the most prominent EAS user for severe weather warnings. IPAWS implements the current EAS alert and warning infrastructure and adds new capabilities involving a number of electronic communications systems used by the general public on a daily basis. Some added capabilities through IPAWS include:

1. Broadcast to Cellular Telephones
2. Broadcast utilizing NOAA All Hazards Weather Radio (HazCollect)
3. Posting of alerts and warnings to internet sites

IPAWS will also be capable of seamlessly incorporating emerging and future alerting channels and communications technologies.

The State of North Dakota will provide public safety officials with resources to assist them as they adopt CAP, incorporate IPAWS, and ensure their communities understand how to access, use, and respond to public alert and warning information. New alert and warning technologies, particularly alerts to personal cellphones, will only be effective if the public understands the avenues over which alerts are delivered and trusts the emergency messages being sent. State public safety officials strive to ensure emergency communication plans and tools incorporate the latest technologies, can be leveraged to

strengthen communication infrastructure, enhance information sharing and situational awareness, and provide the public with critical information.

D. Facts and Assumptions Critical to Planning

1. Emergencies that pose a threat to life safety and/or property requiring state or local level alert/warning activation include, but are not limited to, evacuation and sheltering, widespread fires, hazardous materials spills or gaseous releases, widespread or prolonged utility and/or 9-1-1 outages, terrorist or catastrophic events impacting large populations, AMBER, Blue, and Silver Alerts.
2. Many communities and rural areas do not have outdoor warning systems (i.e., sirens), which provide initial alerts that prompt citizens to access additional warning information describing the nature of the emergency and required actions.
3. Expedient public distribution of alert and warning information will contribute to lives saved, decreased injuries and reduced property damage.
4. Electronic communications devices have become the primary source for initial public notification of an emergency.
5. During an emergency the average person will access their AM-FM radio, television, personal computer or wireless device for additional information.
6. Commercial broadcasters, cable and satellite TV operators, internet providers and wireless communications providers will adhere to federal regulations and state alert and warning plans detailing policy and procedures for broadcast of emergency information to the general public.
7. Power outages or damage to transmission infrastructure may disrupt radio, television, cable and cellular broadcasts that carry warning messages and provide public instruction.
8. Emergency situations can occur at any time; therefore, equipment and procedures to warn the public of impending emergency situations must be in place and ready to use at any time.
9. Agencies authorized to disseminate alerts and warnings using IPAWS have appropriate permissions, hardware, software, training and ability to access and implement the system.
10. Alerts and warnings distributed via IPAWS will enable those with disabilities and those without an understanding of the English language to receive emergency notifications through personal devices they have specifically programmed for translation or interpretation.
11. Some people who are directly threatened by hazards may ignore, not hear, or not understand government issued warnings.
12. Awareness campaigns will increase public awareness of IPAWS implementation as an established medium for receipt of local, state and federal emergency information.

State Roles and Responsibilities

Recognizing that all disasters begin at the local level, the primary responsibility of the state will be to facilitate the implementation of IPAWS into the emergency notification network. In the case of a catastrophic local, tribal, state, or regionally-defined event, the state will provide a resilient and comprehensive alert and notification capability.

- NDDES-HLS will designate the COG point of contact as per the signed Memorandum of Agreement (MOA) with FEMA.
- Per State-level policy, NWS shall be the alternate agency to provide statewide EAS warnings and alerts.
- NDDES will form and maintain a working group, comprised of applicable statewide stakeholders, to bring together the necessary technical and operational expertise from the private sector, non-government organizations (NGOs), local jurisdictions, state, territorial and/or tribal agencies, and the federal government with the goal of defining policy and procedures leading to the implementation of IPAWS across the state. The working group shall be comprised of, but not limited to, the following agencies:
    - ND Department of Emergency Services – Division of Homeland Security
    - ND Department of Emergency Services – Division of State Radio
    - ND Broadcasters Association
    - Bismarck NWS
    - Local emergency management
    - Commercial Broadcast representatives
    - Cable Broadcast representatives
    - Cell Phone provider representatives

- The NDDES POC will sign all in-state COG applications for alerting authorizations
- NDDES will conduct coordinated periodic tests of the system to ensure functionality of equipment and the network
- In addition to the NWS, NDDES provides a backup capability for local alerting authorities to issue emergency broadcasts on behalf of the local jurisdiction.

Local Roles and Responsibilities

All disasters and emergencies are locally oriented. While first responders are gearing up to respond to the initial aftereffects of an incident, it is an inherent responsibility of local officials to keep the public informed of what actions the public needs to take to protect themselves. These could include: evacuation orders, location of points of distribution (for food, water, medicine, etc.), shelter in place guidance, etc. Communicating these instructions to the public is the primary purpose of IPAWS. Because local officials have a better understanding of the situation, the immediate actions that are being taken, and potential adverse impacts of the incident, it is incumbent upon these officials to rapidly and effectively communicate the current situation and protective actions to be taken to the public. In order to successfully accomplish this task local jurisdictions should have a structure in place to provide for rapid alert and warning. Many of the tasks leading to this structure will include:

- Submitting a request/plan to the state that identifies emergency notification providers/systems for inclusion into the IPAWS network
- Designating in writing, in accordance with jurisdictional procedures, no fewer than three individuals who will be the jurisdiction's alerting authorities for issuing emergency broadcasts with IPAWS following their successful completion of IS–247A "Integrated Public Alert and Warning System **(**IPAWS)" course**.** (Typically, this would be the jurisdiction's emergency manager and staff.)

- Incorporating IPAWS into existing and future response plans and procedures as well as training and exercise events.

Each established COG will maintain a list of all individuals who have successfully completed FEMA's IPAWS IS-247A course and other required courses as directed by federal and state guidance. This list will contain copies of completed course certificates, individual names/contact information, and copies of memorandum/resolutions officially designating these individuals as alerting authorities. A copy of each jurisdiction's signed Rules of Behavior will also be included.

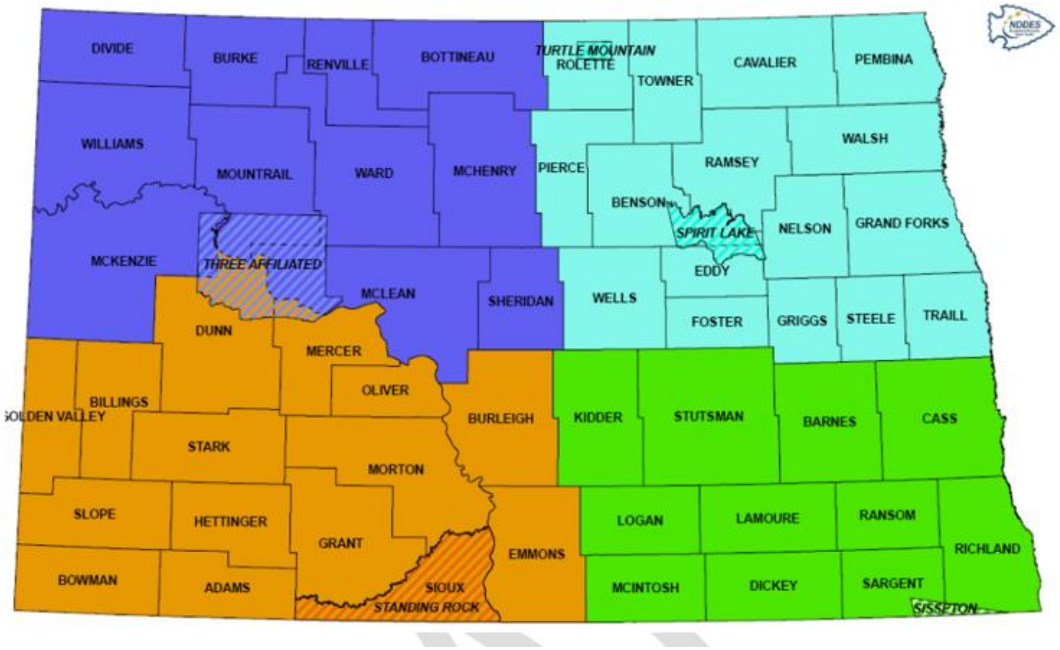
COG-level permissions are detailed in the Application for IPAWS Public Alerting Authority, and describe the geographic boundaries for alerting, the types of alerts that can be issued and the dissemination systems that can be used to distribute the alerts. COG-level permissions help to define the area of responsibility and the capabilities the alerting authority has. Additional COG-level permissions must be obtained from NWS to submit non-weather emergency messages (NWEM) via NOAA Weather Radio.
Immediately after broadcast, a copy of the alert must be faxed or emailed to NDDES (nddes@nd.gov) and the NDDES Operations and Planning Chief must be notified.

Federal Roles and Responsibilities
FEMA is the lead federal agency for IPAWS coordination and implementation. FEMA ensures that the system is maintained and is operational to achieve the following:

- Build and maintain an effective, reliable, integrated, flexible, and comprehensive alert and warning system
- Enable federal, state, local, tribal, and territorial alert and warning emergency communication officials to access multiple broadcast and other communications pathways for the purpose of creating and activating alert and warning messages related to hazards impacting public safety and well-being
- Inform impacted populations before, during, and after a disaster through as many means as possible
- Diversify and modernize the EAS
- Create an interoperability framework by establishing or adopting standards such as CAP
- Enable alert and warning to those with disabilities and others with access and functional needs and to those without an understanding of the English language
- Partner with NOAA for seamless integration of message transmission through national networks
- Receive and authenticate alert messages, then simultaneously deliver to all IPAWS–compliant public alerting systems
- Continue to engage the media, internet service providers, unique and local alerting system providers as well as future alert technology developers on the implementation of IPAWS
- Ensure the required Emergency Management Institute (EMI) courses are available and updated periodically

North Dakota State Emergency Communications Committee (SECC)

(See Appendix 15 – SECC By-Laws, and Appendix 16 – SECC Membership)
Membership of the SECC shall consist of an SECC Chairperson appointed by consensus vote of standing members, Regional Chairpersons appointed to represent the Northwest, Southwest, Northeast and Southeast regions of the state, representatives from the NOAA/NWS, ND Department of Emergency Services, and the Executive Director of the North Dakota Broadcasters Association, as well as others who may be required by the SECC as full participants in the planning process.



Regional Emergency Communications Committees (RECCs) are sub-committees of the SECC.

Other interested local, state, and tribal governmental agencies, private sector businesses, or organizations may fully participate in the process without a vote. These participants may be appointed to committees by the Chair of the SECC.

Authorized Use of IPAWS (See Appendix 1 – ACTIVATION AUTHORITY)
IPAWS may be used to alert the public to events that pose a threat to life and/or property. Presidential messages are issued by the President of the United States. AMBER Alerts are issued by the National Center for Missing and Exploited Children (NCMEC) in consultation with state and local AMBER coordinators. Critical weather warnings (e.g. tornados, flash floods, hurricanes, blizzards or ice storms, and dust storms) are issued by NWS. IPAWS will not be used by NWS for watches or advisories.

Alerts issued by an authorized public safety agency using IPAWS may be disseminated to:

- Broadcast media (EAS)
- Weather radios (non-weather emergency messages, or NWEM)
- Cellphones and other mobile devices via Wireless Emergency Alerts (WEA)

- Internet services, road signs, sirens, etc.

Some alerts may be selected to broadcast to one alerting technology, while other alerts may be selected to go to numerous alerting technologies.

The primary capability of a WEA (smart cellphone messages) is to quickly announce that an event is occurring or is imminent in the geographic area in which the recipient is located. WEA messages are limited to 90 characters. EAS (broadcasters) and NWEM (weather radio) alerts can provide more information. For example, the “Headline” element of a NWEM message may be 160 characters and the “description plus instruction” elements may be up to 160 words total.

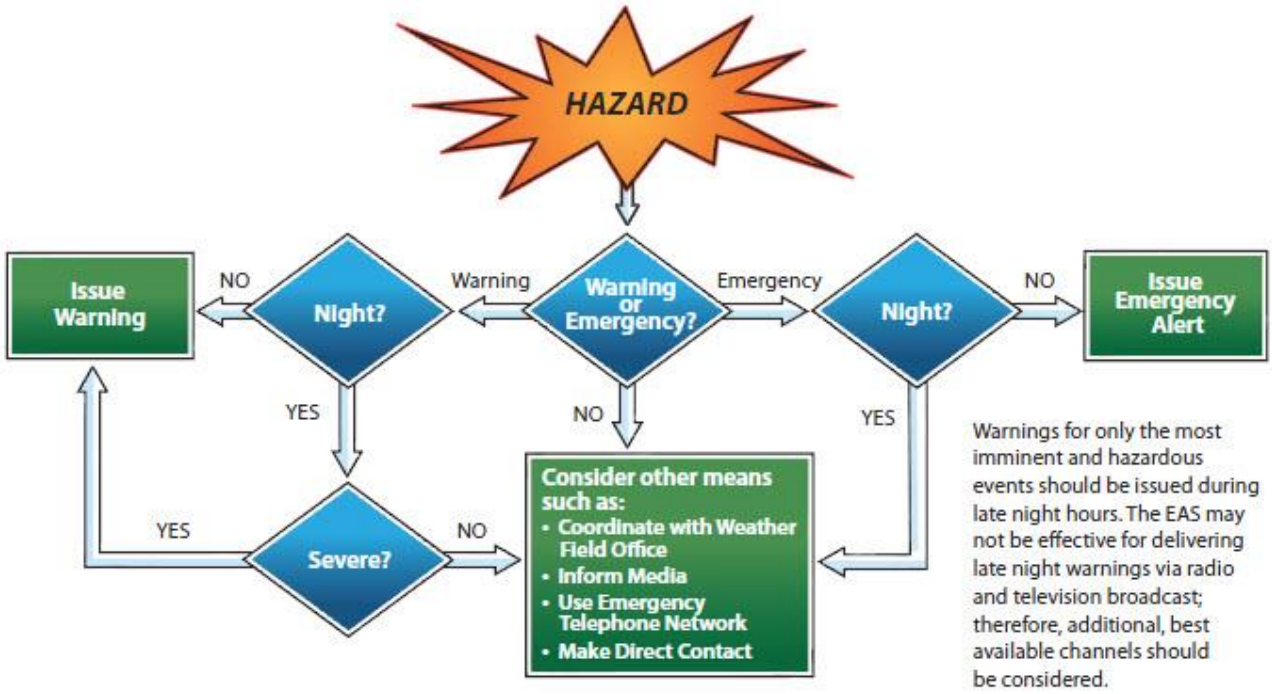
Types of IPAWS Messages and Event Codes
(See Appendix 10 - IPAWS/EAS EVENT CODES)

Warning messages are issued for those events that alone pose a significant threat to public safety and/or property, probability of occurrence and location is high, and the onset time is relatively short.

Emergency messages are issued for those events that by themselves would not kill or injure or do property damage but indirectly may cause other things to happen that result in a hazard.

Criteria for Issuing IPAWS Messages
When circumstances arise and the need for a public warning becomes necessary, the decision by those authorized to disseminate an emergency or warning message will ultimately be a matter of local judgment. To assist in the decision making process the following criteria can be applied:

1. **Does a hazardous situation require the public to take immediate action?**
2. **Does a hazardous situation pose a serious threat to life or property?**
3. **Is there a high degree of probability a hazardous situation will occur?**



References:

- 47 CFR Part 10 (http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div5&view=text&node=47:1.0.1.1.11&idno=47)
- 47 CFR Part 11 (http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&sid=75127c72007aa6a3f1ce8fda8cb814e2&rgn=div5&view=text&node=47:1.0.1.1.12&idno=47)
- ECIG Recommendations for a CAP EAS Implementation Guide, Version 1.0 (http://www.eas-cap.org/ECIG-CAP-to-EAS_Implementation_Guide-V1-0.pdf)
- Joint ATIS/TIA CMAS Federal Alert Gateway to CMSP Gateway Interface Specification
- Common Alerting Protocol Version 1.2 (http://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2-os.pdf)
- Common Alerting Protocol, v. 1.2 USA Integrated Public Alert and Warning System Profile Version 1.0 (http://docs.oasis-open.org/emergency/cap/v1.2/ipaws-profile/v1.0/cap-v1.2-ipaws-profile-v1.0.pdf)
- IPAWS-OPEN v3.04 Web-Service Interface Design Guidance
- Federal Information Processing Standards (FIPS) codes (http://www.census.gov/geo/www/ansi/countylookup.html)
- NATIONAL WEATHER SERVICE INSTRUCTION 10-1708 (http://www.nws.noaa.gov/directives/sym/pd01017008curr.pdf)

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APPENDIX 1: ACTIVATION AUTHORITY

Officials within the state of North Dakota granted authority to activate statewide alerts or warnings utilizing the FEMA Integrated Public Alert and Warning System (IPAWS) include the following:

1. The Governor or authorized representative
2. ND Department of Emergency Services Director or authorized representative
3. N.D. Highway Patrol Superintendent or authorized representative
4. N.D. Division of Homeland Security Director or authorized representative
5. N.D. Division of State Radio Director or authorized representative
6. The National Weather Service Meteorologist-In-Charge, Bismarck and Grand Forks offices, or authorized representative.

Activation Procedures

1. Emergencies and disasters occur at the local level and timing is critical when disseminating alert and warning information to the public. Local/Tribal jurisdictions have the primary responsibility for alerting and warning populations at risk from threats or occurrences of non-weather-related emergency situations and are responsible for investing in and developing the capability to disseminate timely and accurate warning/notifications to at risk populations. Local/Tribal jurisdictions have the option of signing onto the NDDES's existing Everbridge contract for Integrated Public Alert Warning System (IPAWS) and/or Reverse 9-1-1 notification services or choosing a different vendor.
2. When authorized local officials activate IPAWS for a local emergency warning or alert in areas within their jurisdiction, those officials are requested to brief the N.D. Department of Emergency Services Division of Homeland Security (NDDES-HLS) Duty Officer of the emergency incident as soon as possible after activation has occurred. Authorized local officials are directed to notify the NDDES-HLS Duty Officer before activating IPAWS for events that do not require immediate emergency notification of the general public.
3. Alternately, local officials without IPAWS authorization may contact the National Weather Service (NWS) directly to request a non-weather activation of EAS/WEA emergency messages on behalf of the requesting jurisdiction.
4. If a local/tribal jurisdiction is unable to activate their IPAWS system to disseminate an emergency message (EAS – emergency alert system, WEA – wireless emergency alert), they are directed to contact the IPAWS vendor listed in their IPAWS

Collaborative Operating Group (COG) Memorandum of Agreement (MOA) to activate an IPAWS alert or the National Weather Service to activate an IPAWS alert on their behalf. NDDES should not be considered as a backup alert sender.

5. The NWS has primary responsibility for issuing weather-related watches, warnings and advisories authorized by the NWS Meteorologist-in-Charge, who will activate NWS/EAS systems using established NWS procedures.
6. The ND Department of Emergency Services (NDDES) has primary responsibility for issuing statewide IPAWS public alerts (AMBER, Blue, and Silver) upon the request of state law enforcement. AMBER Alert "WEA" alerts are activated statewide by the National Center for Missing and Exploited Children (NCMEC) in consultation with state and local AMBER Alert coordinators. The NWS serves as a backup notification sender in the event NDDES is unable to disseminate the message.
7. The NDDES strongly recommends local/tribal jurisdictions develop emergency alert activation plans and train accordingly for dissemination of their own IPAWS (EAS and WEA) and reverse 911 notifications. NDDES can be considered a resource for technical assistance in your planning and training efforts.
8. The primary course of action for State officials requesting activation of a statewide IPAWS alert or warning requires contact with the NDDES-HLS Duty Officer who will authorize the request with the North Dakota Division of Homeland Security (NDHLS) Director or authorized representative.
9. Alternately (i.e. State Emergency Operations Center is inaccessible) authorized state officials may activate an EAS statewide alert or warning through the designated Primary Entry Point (PEP) commercial broadcast station (KFYR-AM 550 Radio) by contacting the KFYR-AM Hot Line at 701-258-4497. The Control Room will request a telephone number where the caller can be contacted for an immediate callback. The Control Room will call back on a specialized phone equipped to transmit a live broadcast message across EAS. State officials activating the EAS system through this method are requested to notify NDDES/HLS Director or authorized representative before activation.

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APPENDIX 2

NORTH DAKOTA EMERGENCY ALERT SYSTEM (EAS) PLAN

The FCC, in conjunction with Federal Emergency Management Agency (FEMA) and the National Oceanic and Atmospheric Administration's National Weather Service (NWS), implements the EAS at the federal level. The President has sole responsibility for determining when the EAS will be activated at the national level, and has delegated this authority to the director of FEMA. FEMA is responsible for national-level activation of the EAS, tests, and exercises. The NWS develops emergency weather information to alert the public to imminent dangerous weather conditions.

The FCC's role includes prescribing rules that establish technical standards for the EAS, procedures for EAS participants to follow in the event the EAS is activated, and EAS testing protocols. Additionally, the FCC ensures that the EAS state and local plans developed by industry conform to FCC EAS rules and regulations.

EAS instructions vary for each particular designation. Broadcast stations are designated as either participating or non-participating stations. Most broadcast stations have elected to participate in EAS. A small number of broadcast stations, however, have elected not to participate in the national level EAS and hold an FCC authorization letter to that effect. EAS transmissions of national, state and local emergencies broadcast by participating stations are intended for direct public reception (47 C.F.R. Section 11.18(e)). All stations, including non-participating stations, are required to install and test EAS equipment. Upon activation of the national level EAS, non-participating stations are required to broadcast EAS Attention Signal codes, sign-off the air with an announcement and stop operating until the “end of message” code is received. (47 C.F.R. Section 11.18(f).)

EAS Operating Handbook: The EAS Operating Handbook states in summary form the actions to be taken by personnel at EAS Participant facilities upon receipt of an EAN, EAT, tests, or State and Local Area alerts. It is issued by the FCC and contains instructions for the above situations. A copy of the Handbook must be placed at normal duty positions or EAS equipment locations when an operator is required to be on duty and be immediately available to staff responsible for authenticating messages and initiating actions. https://transition.fcc.gov/pshs/services/eas/handbooks.html

National Control Point Procedures: National Control Point Procedures are written instructions issued by the FCC to national level EAS control points. The procedures are divided into sections as follows:

A. National Level EAS Activation. This section contains the activation and termination instructions for Presidential messages.
B. EAS Test Transmissions. This section contains the instructions for testing the EAS at the National level.

C. National Information Center (NIC). This section contains instructions for distributing United States Government official information messages after completion of the National Level EAS activation and termination actions.

Station Designations: FCC EAS station designations reflecting the EAS status of commercial and public broadcasters, cable and satellite broadcast operators, are listed in Appendix 11 of this plan.

National Primary Station (NP): Commercial or public broadcast station within the state responsible for receiving and rebroadcasting all Presidential or other national EAS activations received by the state. In North Dakota, the NP is KFYR-AM 550 radio in Bismarck.

Non-Participating National Stations (NN): Broadcast stations that have elected not to participate in the National level EAS and hold an authorization letter to that effect. Upon activation of the national level EAS, NN sources are required to broadcast the EAS codes, Attention Signal, the sign-off announcement in the EAS Operating Handbook and then stop operating. All NN sources are required to comply with §11.51, 11.52 and 11.61. They may transmit State or Local Area EAS messages at any time without prior notice.

Participating National Stations (PN): Most commercial and public broadcast stations and cable operators are designated as "PN" sources and are responsible for broadcasting all levels of EAS activations to the general public.

Primary Entry Point (PEP) System: The PEP system is a nationwide network of broadcast stations and other entities connected with government activation points. It is used to distribute the EAN, EAT, and EAS national test messages and other EAS messages. FEMA has designated 34 of the nation's largest radio broadcast stations as PEPs. The PEPs are designated to receive the Presidential alert from FEMA and distribute it to local stations. In North Dakota the PEP broadcast station is KFYR-AM 550 radio in Bismarck.

Local Primary Station (LP-1): Broadcast stations responsible for receiving EAS messages from the NP, SP, SR or LRN for rebroadcast to LP-2 broadcast stations as well as the general public. LP-1 stations relay national, state and local EAS messages, as well as NWS alerts and warnings. All LP-1 stations will maintain the capability to monitor a minimum of four audio inputs to include SR, SRN, LRN, and NWS sources.

Local Relay Network (LRN): Public Safety Answering Points (PSAPs) or Emergency Operations Centers (EOCs) authorized to disseminate local alerts and warning information, allowing area commercial and public broadcast stations to re-broadcast if they so choose. Local officials authorized to activate alerts through EAS may coordinate activation through the NWS if the local PSAP is not equipped with and authorized to activate alerts through the IPAWS system.

State Primary Station (SP): Primary source of State EAS activations, which can originate with the Governor or designated representatives, using the SRN for message distribution. The SP monitors the PEP/NP for Presidential or other national EAS activations, as well as National Weather Service alerts and warnings. In North Dakota the SP is the State Emergency Operations Center (SEOP) or alternately the Bismarck NWS.

State Relay Network (SRN): The State of North Dakota uses the Federal Emergency Management Agency (FEMA) Integrated Public Alert and Warning System (IPAWS) enabling the State Primary Station (SP) to activate EAS broadcasts to commercial and public broadcasting stations statewide or in geographically targeted areas. Commercial and public broadcasting stations have the option to monitor the SRN for state level EAS activations.

State Relay Station (SR): Primary source for relay of EAS messages initiated by the State for broadcast to the general public. These stations receive and retransmit EAS activations received over the SRN to assist statewide EAS message distribution to all local areas. SR stations will also relay Presidential or other national EAS activations, as well as NWS alerts and warnings. In North Dakota the SRs include select commercial and/or public radio stations in Bismarck, Devils Lake, Dickinson, Fargo, Grand Forks, Jamestown, Minot, Wahpeton and Williston.

3. EXECUTION

Concept of Operations:

EAS Activations and Message Relay. In North Dakota, national and state activations have the capability to operate on the daisy-chain concept with a primary station initializing the broadcast, which in turn is received by monitoring stations for immediate public broadcast and relayed to additional outlying broadcast stations enabling widespread broadcast of emergency warnings and alerts to the general public. Likewise, local activations initialized by Public Safety Answering Points (PSAPs) for broadcast to monitoring local commercial and public broadcast stations will be broadcast to the general public in the local impacted area. Common Alerting Protocol (CAP) is the warning protocol used by the Integrated Public Alert and Warning System (IPAWS). (FCC 47 CFR Part 11) Effective June 30, 2012, all EAS participants must monitor the IPAWS FEMA CAP aggregator. This will initially be accomplished though Internet Protocol (IP) connection of an approved Open Platform for Emergency Networks (OPEN) CAP-capable EAS device, programming these devices to allow the device to poll the IPAWS aggregator. This change means that all warning centers authorized by NDDES and FEMA can issue warnings that will reach the public not only through broadcast, cable and certain satellite program content providers, but also through other warning systems such as Wireless Emergency Alert (WEA), Non-Weather Emergency Messages (NWEM) Reverse 911, and a wide variety of social communications media.

Monitoring Requirements. All EAS broadcast participants in North Dakota must have the capability to monitor three potential sources of EAS activation. Monitoring assignments are specified in the State Alert and Warning Plan and are determined according to FCC EAS monitoring priorities. If the required EAS sources cannot be received, alternate arrangements or a waiver may be obtained by written request to the FCC. In an emergency, a waiver may be issued by the FCC over the telephone with a follow-up letter to confirm temporary or permanent reassignment. (e-CFR Title 47, Part 11, Section 11.52, d-1) (Broadcaster EAS Monitoring Assignments and Designations – Appendix 11)

Equipment Readiness. EAS participants are required to test their ability to receive and distribute EAS messages and to keep records of all tests. EAS participants are responsible for ensuring that encoders, decoders and signal generating equipment used as part of the EAS are installed so monitoring and transmitting functions are available during times the station is in operation. In addition, EAS participants must determine the cause of any failure to receive the required tests or activations specified in Section 11.61(a)(1) and (a)(2) and indicate in the station's EAS log why the tests were not received. These logs must be retained for two years at the EAS participant's headquarters and must be made available for public inspection upon reasonable request. In the event the EAS equipment becomes defective, a broadcast station may operate without the equipment pending its repair or replacement for a period not to exceed 60 days. If repair or replacement of defective equipment is not completed within 60 days, participants must submit an informal request for additional time to their assigned FCC field office. The request must include an explanation of what steps have been taken to repair the equipment. (e-CFR Title 47, Part 11, Section 11.35(b) & (c)). Entries must be made in the participant's logs showing the date and time the equipment was removed and restored to service.

National Level Activation: The authority to activate the national-level EAS rests solely with the President of the United States. The following sequence activates the national-level EAS.

1. **Presidential Decision:** A Presidential Decision to activate the EAS is made, and then passed to the White House Communications Agency (WHCA) for implementation.
2. **The WHCA Contacts FEMA:** Using either telephone or radio means, the WHCA contacts the Federal Emergency Management Agency (FEMA) with EAS implementation instructions.
3. **FEMA Relays the Order:** FEMA, using a network, relays the Emergency Action Notice (EAN) order information to the communications industry.
    a. *Communications Entities:* FEMA transmits the EAN to the National Primary (NP) broadcast stations using the EAS system. In North Dakota, the National Primary station is KFYR-AM 550 radio.
    b. *Relay:* The EAN is relayed from the NP station to the SP and statewide LP-1 stations, cable and satellite broadcast systems.
4. **Federal Termination:** At the conclusion of an incident when the national-level EAS is no longer needed, a termination order is issued. At the conclusion of the EAS program, the WHCA Trip Officer issues a termination order over the program

circuitry. FEMA then transmits an Emergency Action Termination (EAT) message. The termination order is then relayed along the EAS network to all EAS participants.

State Level Activation: In North Dakota, state activations of the EAS rest with the Governor, the Governor's authorized representatives or by request from authorized local officials to the State Primary (SP). SP sources include the Governor's Office, NDDES or the NWS serving as an alternate to NDDES.
The following sequence activates the state-level EAS.

1. **State Government Decision:** The Governor or authorized representative makes the decision to activate the EAS which is then passed to NDDES in the SEOC.
2. **State EAS Verification Process:** Upon request by authorized officials, NDDES staff will:
    a. Verify the source of the request.
    b. Ensure the request meets criteria to mitigate threats to public safety or substantial property loss.
    c. Ensure the broadcast provides immediate public information to communicate time critical actions necessary to mitigate impacts from an imminent emergency event.
    d. Determine the area of broadcast activation.
    e. Provide EAS activation as an integral part of state or local warning plans.
3. **State EAS Activation:** The state EAS equipment is activated at the SEOC, which broadcasts an emergency alert message across the IPAWS system, which replaces the State Relay Network (SRN). The Bismarck National Weather Service (NWS) serves as an alternate source of state EAS activation with subsequent alert or warning broadcast across the National Oceanic and Atmospheric Administration (NOAA) Weather Radio system within North Dakota.
4. **State EAS Relay:** State EAS activation is broadcast over IPAWS to monitoring State Relay (SR) stations comprised of commercial broadcast stations throughout the state who, at their discretion, further relay the EAS message to LP-1 and LP-2 stations.
5. **State EAS Termination:** Cancellation notices for warnings and AMBER Alerts are not disseminated through EAS. The system is only used to broadcast activation of warnings and alerts. However, programming of warnings and alerts into the EAS equipment does require setting a time period of a warning or alert along with an End Of Message (EOM) code for the broadcast.

Local Level Activation: Authorized local officials will initiate local EAS activation from the Public Safety Answering Point (PSAP) serving the operational area. An alternate source of local activation is through the local LP-1 commercial broadcast station or through the NWS with proper verification.

1. **Local Authorization:** Authorized local officials make the decision to activate the EAS to warn area populations or provide emergency public information communicating time critical actions necessary to mitigate impacts from an imminent emergency event.

2. **Local EAS Activation:** Activation of the EAS for local emergencies will be accomplished through the Local Relay Network (LRN), initiated by the area PSAP and broadcast to area commercial broadcast stations, allowing the stations to re-broadcast at station management's discretion. Alternately, authorized local officials may contact the NWS for subsequent NWS broadcast of non-weather related emergency information across the NOAA Weather Radio system in the impacted area.
3. **Local EAS Termination:** Cancellation notices for warnings and AMBER Alerts are not disseminated through EAS. The system is only used to broadcast activation of warnings and alerts. However, programming of warnings and alerts into the EAS equipment does require setting an activation time period for a warning or alert, along with an End Of Message (EOM) code for the broadcast.

NWS EAS Activation: NWS warnings broadcast over the EAS will be monitored by all NP, SP, SRN, LRN, SR and LP-1 stations.

1. NWS will notify the SP of weather warning activations via the National Warning System (NAWAS) hotline or, alternately, by telephone or SEOC hotline.
2. NWS severe weather warnings broadcast over the EAS and received by monitoring SR, LP-1 and LP-2 stations should be retransmitted without modification.
3. NWS severe weather watches are not broadcast over the EAS.

FCC Originator Codes

Originator	Event Codes
EAS Participant	EAS
Civil Authorities	CIV
National Weather Service	WXR
Primary Entry Point System	PEP

EAS decoder equipment must be capable of storing at least ten preselected event and originator header codes, in addition to the six mandatory event/originator codes for tests and national activations, and store any preselected location codes for comparison with incoming header codes.

FCC Authorized Event Codes

Nature of Activation	Event Codes
National Codes (Required):	
Emergency Action Notification (National only)	EAN
Emergency Action Termination (National only)	EAT
National Information Center	NIC
National Periodic Test	NPT
Required Monthly Test	RMT
Required Weekly Test	RWT

State and Local Codes (Optional):	**Event Codes**
Administrative Message	ADR
Avalanche Warning	AVW[1]
Avalanche Watch	AVA[1]
Blizzard Warning	BZW
Child Abduction Emergency	CAE[1]
Civil Danger Warning	CDW[1]
Civil Emergency Message	CEM
Coastal Flood Warning	CFW[1]
Coastal Flood Watch	CFA[1]
Dust Storm Warning	DSW[1]
Earthquake Warning	EQW[1]
Evacuation Immediate	EVI
Fire Warning	FRW[1]
Flash Flood Warning	FFW
Flash Flood Watch	FFA
Flash Flood Statement	FFS
Flood Warning	FLW
Flood Watch	FLA
Flood Statement	FLS
Hazardous Materials Warning	HMW[1]
High Wind Warning	HWW
High Wind Watch	HWA
Hurricane Warning	HUW
Hurricane Watch	HUA
Hurricane Statement	HLS
Law Enforcement Warning	LEW[1]
Local Area Emergency	LAE[1]
Network Message Notification	NMN[1]
911 Telephone Outage Emergency	TOE[1]
Nuclear Power Plant Warning	NUW[1]
Practice/Demo Warning	DMO
Public Safety Message	PSM
Radiological Hazard Warning	RHW[1]
Severe Thunderstorm Warning	SVR
Severe Thunderstorm Watch	SVA

Severe Weather Statement	SVS
State and Local Codes (Optional…continued):	**Event Codes**
Shelter in Place Warning	SPW[1]
Special Marine Warning	SMW[1]
Special Weather Statement	SPS
Tornado Warning	TOR
Tornado Watch	TOA
Tropical Storm Warning	TRW[1]
Tropical Storm Watch	TRA[1]
Tsunami Warning	TSW
Tsunami Watch	TSA
Volcano Warning	VOW[1]
Winter Storm Warning	WSW
Winter Storm Watch	WSA

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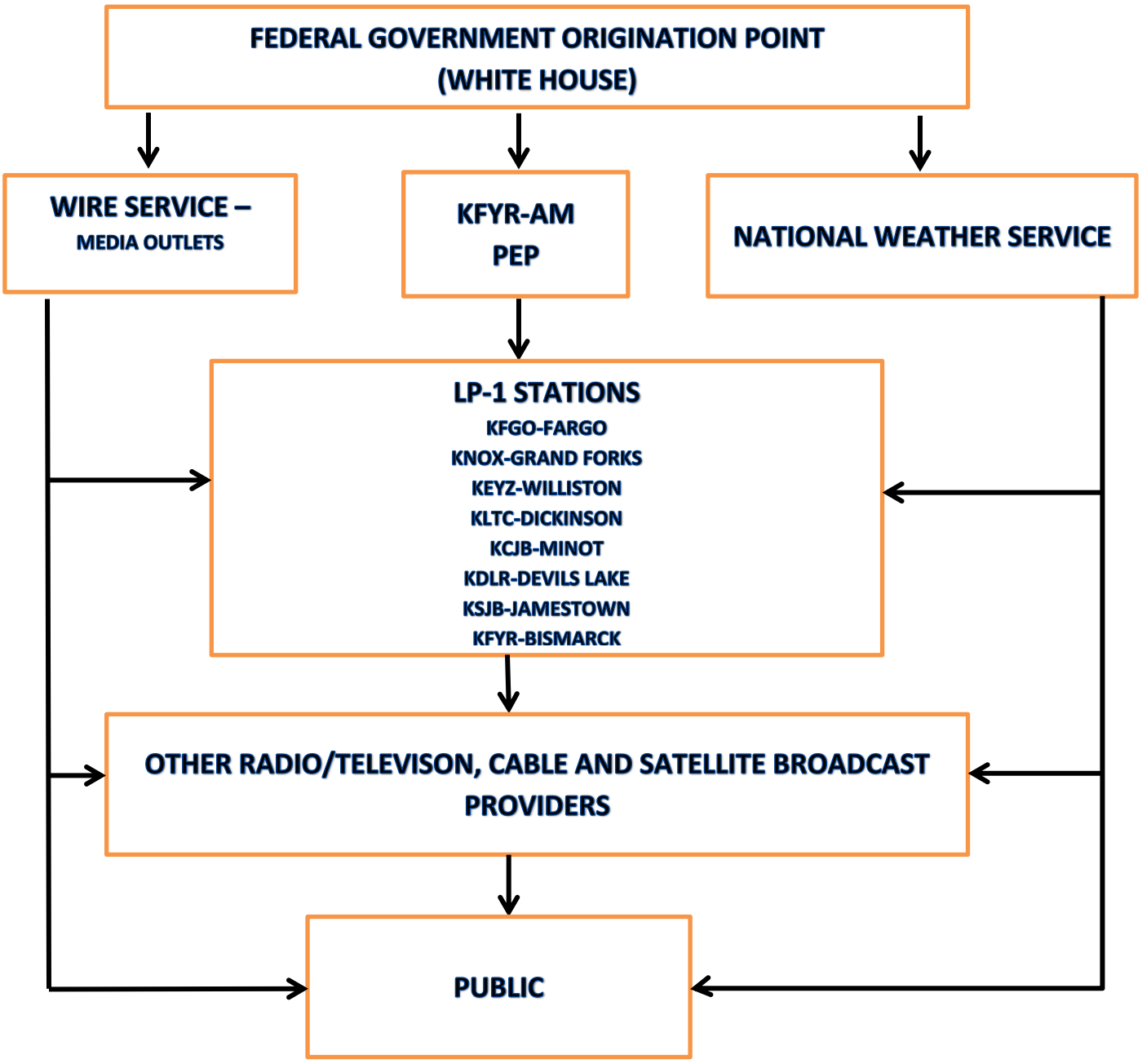
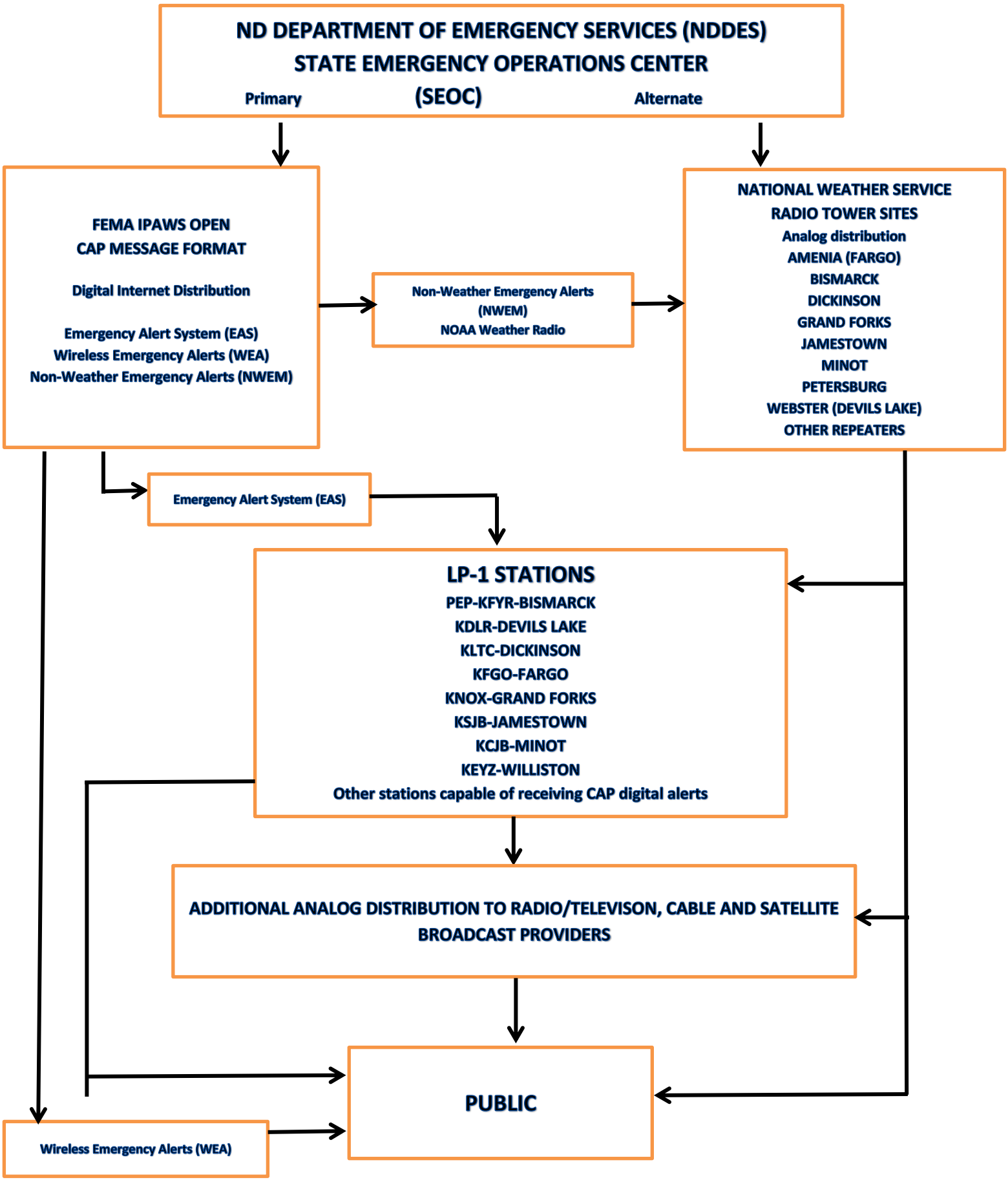
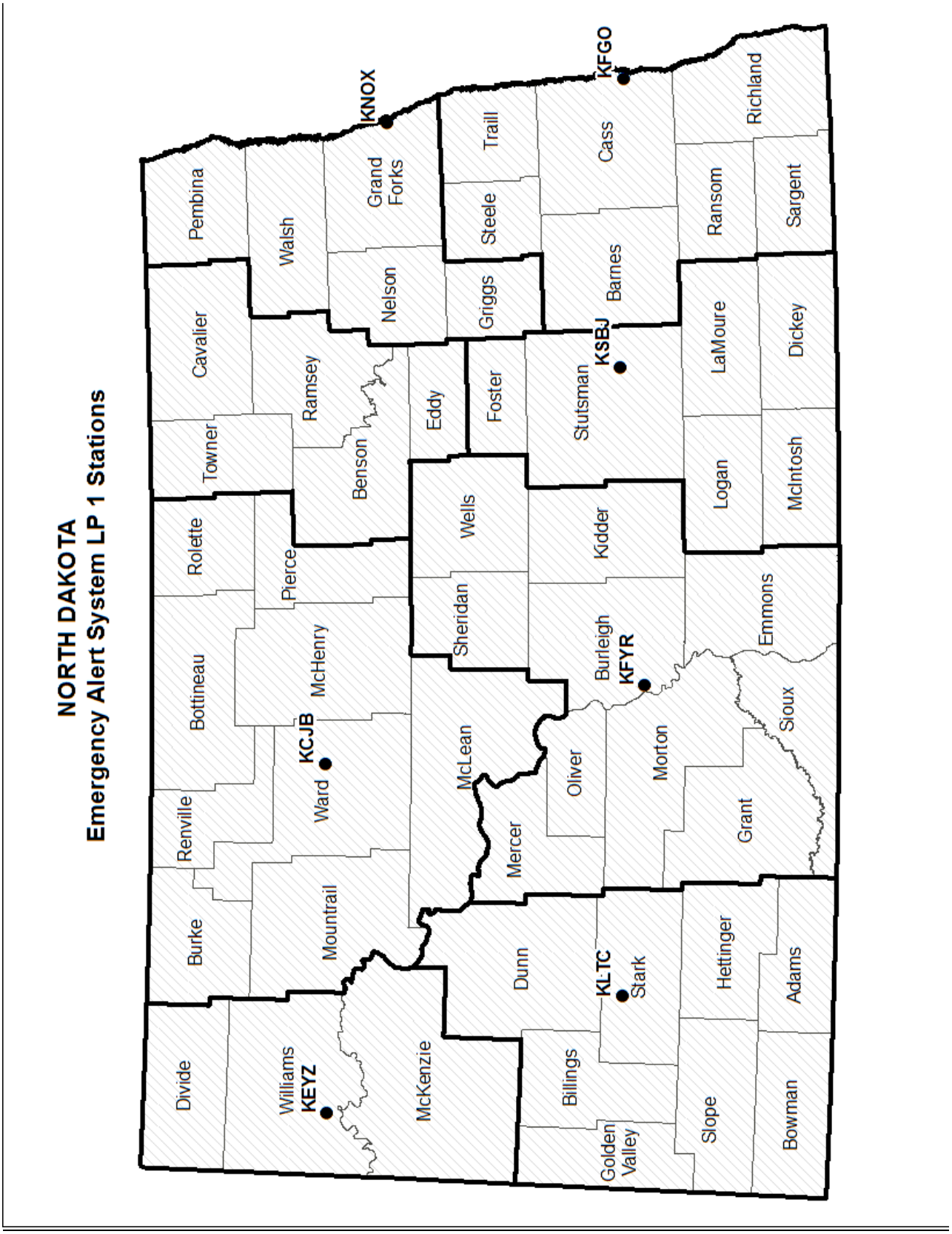
APPENDIX 3: NATIONAL ACTIVATION



APPENDIX 4: STATE RELAY NETWORK




NORTH DAKOTA
Emergency Alert System LP 1 Stations
KNOX
KFGO
KSBJ
KCJB
KFYR
KEYZ
KLTC
Pembina
Walsh
Grand Forks
Traill
Cass
Richland
Cavalier
Nelson
Steele
Barnes
Ransom
Sargent
Towner
Ramsey
Griggs
Stutsman
LaMoure
Dickey
Rolette
Benson
Eddy
Foster
Logan
McIntosh
Pierce
Wells
Kidder
Bottineau
McHenry
Sheridan
Burleigh
Emmons
Renville
Ward
McLean
Oliver
Morton
Sioux
Burke
Mountrail
Mercer
Grant
Divide
Williams
McKenzie
Dunn
Stark
Hettinger
Adams
Billings
Golden Valley
Slope
Bowman

APPENDIX 6: FEMA IPAWS APPLICATION INSTRUCTIONS

Who can sign up to use IPAWS in North Dakota?

- State Government Organizations
  - ND Department of Emergency Services
  - ND Highway Patrol
- Local Government
  - City/County Emergency Management
  - City/County/Regional Public Safety Answering Points (PSAPs)
- Tribal Nations
  - Tribal Emergency Management

Pathways for alerting are:

1. Emergency Alert System (EAS): alerts to broadcasters
2. Wireless Emergency Alerts (WEA): alerts to cellphones
3. Non-Weather Emergency Message (NWEM): alerts to NOAA Weather Radio All Hazards
   a. In addition to signing up for IPAWS, operational NWEM capability requires additional COG level permissions from the National Weather Service to submit NWEM messages. For more information, refer to: http://weather.gov/os/hazcollect

Selecting Alert Origination Software

Ensure that the selected software includes all functions you may require (e.g. ability to describe an area using a map polygon, easily accessed “Cancel” function, straightforward alert creation, etc.)

Relation with Governance Structure

Alerting authorities should reference their State Alert and Warning Plan (EAS/IPAWS) to govern alerting responsibilities for their state and/or local jurisdictions. COG permissions, including alerting jurisdictions and permissible alerting codes, should be established in accordance with those established State Alert and Warning Plan.
All state EAS plans are available on the Federal Communications Commission website at: http://www.fcc.gov/encyclopedia/state-eas-plans-and-chairs

How to sign up for IPAWS:

Step #1 – Select IPAWS Compatible Software

Step #2 – Apply For a Memorandum Of Agreement with FEMA

Step #3 – Apply For Public Alerting Permissions

Step #4 – Complete IPAWS Web-Based Training

Step #5 – Complete the Application

1. Select IPAWS compatible software
   - Access to IPAWS is free; however, to send a message using IPAWS, an organization must procure its own IPAWS compatible software.
   - Agencies should ensure software is chosen that meets the organization's specific requirements
   - Consult with your software developer to ensure your system is IPAWS-OPEN compatible and provides the capabilities that your organization requires.
   - For a list of private sector developers who have access to IPAWS-OPEN, please view the list of IPAWS-OPEN developers at www.fema.gov/ipaws/alerting-authorities

2. Apply for a Memorandum of Agreement (MOA) with FEMA
   - To become a COG, an MOA governing system security must be executed between the sponsoring organization and FEMA. Each MOA is specifically tailored to the sponsoring organization and their interoperable software system. Download and complete the IPAWS Operational COG Application: http://www.fema.gov/media-library/assets/documents/27077?id=6019
   - Email the application directly to FEMA at: IPAWS@FEMA.DHS.GOV. Please indicate in the subject line of the email "COG Application."
   - The FEMA COG coordinator will prepare and return the MOA for signature after it is submitted and assign a COG identification (ID). After being signed by the applicant, the MOA will be routed for FEMA signatures. A copy of the executed MOA and the COG-specific digital certificate will be returned to the sponsoring organization. Both the COG ID and digital certificate are necessary to configure the IPAWS compatible software system.
   - After completing these steps, the organization will have the capability to exchange messages and content between COGs. Please note, these messages will not be sent to the public.
3. Apply for public alerting permissions
   - If applicable, you will receive a public alerting application along with your unsigned MOA. This application must be signed by the designated state official.
   - Complete this application defining the types of alerts a COG intends to issue and the extent of its geographic warning area.
     - The contact information for the designated state reviewer will be provided with the public alerting application.
   - This form will be submitted for approval signature to the State of North Dakota Authorization POC at: rnrobinson@nd.gov
   - Once the signed form is received, please send it to IPAWS@FEMA.DHS.GOV
4. Complete IPAWS web-based training
   - Complete IS-247.A http://training.fema.gov/EMIWeb/IS/is247a.asp
     - The goal of this course is to provide authorized public safety officials with:
       - Increased awareness of the benefits of using IPAWS for effective public warnings

  - Skills to draft appropriate, effective, and accessible warning messages
  - Best practices in the effective use of Common Alerting Protocol (CAP) to reach all members of their communities
  - The course should take approximately two hours to complete and is a prerequisite for full access to IPAWS-OPEN for the purpose of public alerting. FEMA does not provide training on third-party authoring software. Contact your vendor for any software support questions.
- Send the Certificate of Achievement to: The State of North Dakota Authorizing POC at: nddes@nd.gov and FEMA at: IPAWS@FEMA.DHS.GOV

Completing the application

Once the public alerting application and web-based training are complete, specific alerting permissions will be implemented in IPAWS-OPEN. At that point the individual members specified by the COG will be able to send alerts and warnings in the geographically prescribed areas. Initial functionality includes the ability to access and send alerts through:

- Emergency Alert System (EAS)
- National Weather Service (NWS) HazCollect Emergency Message Collection System for NWS-approved alerting authorities
- Wireless Emergency Alerts (WEA), depending on local implementation by commercial mobile service providers

Go to www.fema.gov/ipaws/alerting-authorities for a list of emergency management organizations with access to IPAWS for public alerting.

The ND Department of Emergency Services Director of Homeland Security recommends going to the FEMA IPAWS website at www.fema.gov/ipaws to view a short five minute video about IPAWS before beginning the process of implementing IPAWS in your jurisdiction. In addition to the introductory video, IPAWS informational materials, including the “IPAWS Toolkit for Alerting Authorities”, can be found at http://www.fema.gov/informational-materials.

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APPENDIX 7
SUBMITTING APPLICATIONS FOR IPAWS ALERTING AUTHORITY

The North Dakota Department of Emergency Services (NDDES) is assigned as the State IPAWS Review Authority in the Federal Emergency Management Agency (FEMA) IPAWS Memorandum of Agreement (MOA), requiring all local city/county/tribal license holders to apply for IPAWS alerting authority through NDDES. As such, NDDES is responsible to ensure provisions documented in the MOA and accompanying Rules of Behavior are enforced.

Geographic area of responsibility: Alerting agencies must list the area name and FIPS codes for which they are authorized to issue public warnings, typically one or more counties, on the application form. FIPS codes may be found here:

http://www.census.gov/geo/www/ansi/countylookup.html

Completed applications must be submitted to the state designated Point of Contact (POC) to review for compliance with state alerting plans. Agencies requesting alerting authorization are requested to submit a County/City IPAWS Communication Plan and Concept of Operations documenting local policy authorizing alert and warning activations. The POC information is provided with the application.

The State Reviewer will review the requested alerting permissions and plans; and, if consistent with state alert and warning plans, the State Reviewer will complete the remainder of the form, sign and return to the applicant.

Once the State Reviewer has signed and returned the application, the submitting agency may send it to the FEMA coordinator along with a copy of staff EMI training certificates, documenting successful completion of IPAWS Independent Study course IS-247a (Integrated Public Alert and Warning System).

Once the application has been submitted to the FEMA IPAWS MOA Coordinator, the MOA will be prepared and returned to the Primary POC for signature and return by the Sponsoring Organization. It will then be routed to the FEMA IPAWS-OPEN System Owner. Once executed, a Collaborative Operating Group (COG) ID and digital certificate will be generated and implemented in IPAWS-OPEN. A copy of the executed MOA and COG ID and digital certificate will be returned to the Primary POC.

(continued on next page)

Agencies within the state authorized to disseminate alerts and warnings utilizing the IPAWS system are referred to as Collaborative Operating Groups (COGs). A COG is a virtual organization comprised of individual members responsible for incident or disaster response. A COG may be established at a geographic level sponsored by the appropriate government agency including:

- State
- Multi-county
- Single county
- Single city

You will be notified when your public alerting permissions have been implemented in the IPAWS system and are ready for use.

The North Dakota Department of Emergency Services (NDDES) currently uses Everbridge software, which is IPAWS compatible and accessible under the current state contract with Everbridge. However, if a local entity selects IPAWS compatible software from a vendor of their choosing, the application process will remain the same with plans and procedures submitted to NDDES for approval before submission to FEMA for authorization.

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APPENDIX 8: USING IPAWS IN PRE-PLANNED EVENTS

The use of IPAWS in advance of a pre-planned event is a viable method to alert the public of an event and mitigate panic and risk to the public and participants. These messages would advise the public of the event, communicate there is no cause for alarm, or warn the public of any potential risks. This guideline does not override the authority of the individual jurisdiction's elected officials and emergency management staff. Any alert must still be approved by the alerting authority for the jurisdiction before being sent.

Planning: During the planning of a pre-planned event (exercise or public event), the risks associated with the event should be identified. If the planned event has a potential risk to the public or public safety, the use of IPAWS to mitigate that risk may be appropriate.
Examples of events and risks:

- Controlled burn of large area
  Risks: Smoke on roadway impairing driving, medical conditions of people in area

- School Active Shooter Exercise
  Risks: Panic of the general public in the area, Good Samaritan's reaction and putting the players at risk

- Major bicycle road race
  Risks: Traffic accidents, injury to riders and bystanders

During the planning for each event, the authority should review the event and identify the risks. These risks should be reviewed against the permitted uses and target audiences of the various IPAWS dissemination media. The alerting authority will determine if the use of IPAWS is appropriate. Guidelines for the use of IPAWS should be defined and documented in the event plan or an appendix.

Authorized Use: IPAWS has several dissemination pathways. Each system has a different audience and rules for use.

Dissemination System	Audience	Rules	Notes
Emergency Alerting System (EAS)	Broadcast radio and television viewers (not internet or satellite)	47 CFR 11 State EAS Plan	Broadcasters are not required to retransmit alerts from local authorities. An EAS alert will be delivered to a large audience.
Wireless Emergency Alerts (WEA)	Wireless phones in the area of the alert	47 CFR 10	WEA has specific criteria for use. See * below.
Non-Weather Emergency Messages (NWEM)	Weather radio users	NWS policies	NWEM alerts will be sent to a National Weather Service transmitter that covers a large area. The alert may also be rebroadcast by broadcast radio and television as an EAS message, but the entities are not required to do so.

IPAWS All Hazards Alert Feed	Third-party software and service providers; usually a subscription type service	IPAWS rules	Currently, defining specific criteria for delivery due to the many varied systems using this data is unclear.
Collaborative Operating Group (COG) to COG	Other specific COGs	IPAWS rules	Used to coordinate and share information between COGs.

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APPENDIX 9: TRAINING AND EXERCISE

Training Requirements
Prior to accessing the system and posting alerts, training requirements for IPAWS are as follows:

- Computer Security Awareness training prior to initial access and annually thereafter, either a locally delivered course or, if not available locally, Domestic Preparedness Campus online course, CYBER 175-W (175-W) — Information Security for Everyone (http://www.teexwmdcampus.com/wbtClass_info.k2?wbtClassID=108)
- IS-247A course for COG point of contact (POC) and any user with alerting authority for IPAWS public alerts (http://training.fema.gov/EMIWeb/IS/is247a.asp)
    - The COG POC must complete IS-247A and submit a copy of his/her training certificate as part of the application process. All other training records are maintained locally.

Writing Effective Alert and Warning Messages
How an alert/warning message is written is as important as what is written. Poorly written warnings can undermine both understanding and credibility. “Style" refers to how you write. Considerations when writing accessible and usable alert and warning messages should include:

- Specificity: If the message is not specific enough about the “Who? What? When? Where? Why? How?” the public will spend more time seeking specific information to confirm the risk. If necessary, be specific about what is or is not known about the hazard.
- Consistency: An alert/warning should be internally consistent; that is, one part of the message should not contradict another part. It should be consistent with messages that are distributed via other channels. To the extent possible, alerts/warnings should be consistent from event to event, to the degree that the hazard is similar.
- Certainty: Avoid conveying a sense of uncertainty, either in content or in tone. Confine the message to what is known, or if necessary, describe what is unknown in certain terms. Do not guess or speculate.
- Clarity: Use common words that can easily be understood. Do not use technical terminology or jargon. If protective instructions are precautionary, state so clearly. Make it clear if protective instructions pertain to particular at risk populations (e.g., elderly). If the probability of occurrence of the hazard event is less than 100 percent, try to convey in simple terms what the likelihood of occurrence is.
- Accuracy: Do not overstate or understate the facts. Do not omit important information. Convey respect.

To this end, only those individuals who have successfully completed FEMA’s IPAWS IS-247a course and have been officially designated by their jurisdiction as an alerting authority will be provided access to the system. FEMA approves the state designated POC; this POC will then be responsible for verifying and certifying applicable state agency, local jurisdiction, and tribal government alerting authorities within the state.

System Security
To ensure the joint security of the systems and the message data they store, process, and transmit, all parties participating in IPAWS agree to the terms and conditions as stated in their MOAs and the IPAWS Rules of Behavior, which can be found at www.fema.gov/alerting-authorities.

System Tests
At the local, county, and state level, quarterly tests or exercises of IPAWS will be conducted to ensure the ability to send emergency notification information across the entire network. Testing should be coordinated prior to execution to ensure appropriate rules and regulations are followed. Any impediments will be immediately identified and a resolution at the lowest jurisdictional level possible will be ascertained. It is pertinent to define which test codes will/should work for each dissemination channel because these may be slightly different for each state, depending on their existing EAS Plan.
The following test codes are defined for IPAWS dissemination:

- The Required Weekly Test (RWT) message is logged by TV and radio stations for EAS and does not interrupt broadcasting. RWT will not be carried over NOAA Weather Radio or cellphones for WEA.
- The Required Monthly Test (RMT) message will interrupt TV and radio broadcasting for EAS, but will not be carried over NOAA Weather Radio or cellphones for WEA.
- The practice/demonstration message (DMO) is carried over NOAA Weather Radio, and in some cases a DMO will interrupt TV and radio broadcasting for EAS (because broadcasters also monitor NOAA Weather Radio). DMO will not be carried over cellphones for WEA. (DMO is the three-letter code signifying a practice/demonstration message).
- There is currently no authorized test message for WEA.

It is anticipated that the FEMA IPAWS Program Management Office (PMO) will conduct tabletop, scenario-based, and full-scale exercises of the public alert and warning communication systems. Where applicable, all jurisdictions will be encouraged to participate in these exercises. Additionally, the state and/or local jurisdictions may find it necessary to conduct IPAWS-only exercises to test the connectivity of the network. Even though these exercises may involve a small portion of the response community, they do need to be included in the state regionally defined Training and Exercise Planning Workshop (TEPW) calendars. If an IPAWS component is to be part of a larger exercise, then it does not need to be included on a TEPW calendar. Additionally, the state coordinates regular on-site, virtual, and/or independent testing with the IPAWS Lab at the Joint Interoperability Test Command (JITC) in Indian Head, Maryland. The IPAWS Lab at JITC provides State Public Safety officials with a controlled IPAWS testing environment where alert and warning technologies can be exercised to assess capabilities and effectiveness with IPAWS. The closed IPAWS environment is capable of demonstrating alert dissemination to all IPAWS pathways including EAS, WEA, Non-Weather Emergency Messages (NWEM), the IPAWS All-Hazards Information Feed, and Collaborative Operating Groups (COG). The state's primary purpose for testing within the IPAWS Lab environment is for public safety officials to gain confidence using IPAWS in a safe/closed environment, ensuring that if the State of North Dakota needs to send an

actual alert to the public, the state will be able to do so quickly and effectively. Additional purposes include functional assessment, alert dissemination validation, training, procedural and process evaluation, and the establishment of functional requirements – all in a safe IPAWS environment.

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Appendix 10

(EXAMPLE)

North Dakota
2016 EAS TEST SCHEDULE

This is the 2016 Required Monthly Test (RMT) schedule for the North Dakota Emergency Alert System (EAS). NDDES has now implemented the Integrated Public Alert and Warning System (IPAWS) to disseminate alert and warning messages to commercial radio and television broadcasters simultaneously across EAS. IPAWS is a modernization and integration of the nation's alert and warning infrastructure, replacing the analog daisy-chain dissemination system formerly used for distribution of EAS alerts. As such, EAS RMTs will no longer be disseminated across the North Dakota State Radio **154.935 MHz** frequency and LP-1 stations are no longer required to monitor this frequency.

RMTs initiated by the State will be disseminated through IPAWS – **https://apps.fema.gov.** Stations monitoring analog broadcasts can receive re-broadcast of EAS tests and alerts by continued monitoring of assigned LP-1 stations and/or through digital IPAWS CAP communications.

On-air, cable and satellite radio and television stations must ensure their equipment is programmed to process the following non-weather emergency codes used by state and local Public Safety Answering Points (PSAPs) authorized to disseminate non-weather emergency and warning codes using the IPAWS system.

Non-Weather Event Codes

EAS Test Codes
RWT – Required Weekly Test
RMT – Required Monthly Test

Emergency Codes
LAE – Local Area Emergency
CEM – Civil Emergency Msg
TOE – Telephone Outage (911)
CAE – Child Abduction Emergency

Evacuation Codes
EVI – Evacuation Immediate
SPW – Shelter-In-Place Warning

Warning Codes
CDW – Civil Danger Warning
FRW – Fire Warning
HMW – Hazardous Materials
LEW – Law Enforcement
RHW – Radiological Hazard Warning

Upon reception of an RMT, commercial radio and television stations have 60 minutes to re-transmit the alert. The RMT is scheduled for the first Wednesday of each month. Odd months are during the daylight hours. Even months are at night. If the first Wednesday falls on a holiday, the test will be conducted on the second Wednesday of the month.

If the local PSAP is unable to initiate a local monthly test, the local primary broadcast station should activate the RMT.

If there are technical problems with an RMT, it should be sent again the following week on the same day and time period.

North Dakota
2016 EAS RMT TEST SCHEDULE

DATE	TIME	ORIGINATOR
January 6	2 - 3 PM	ND State Radio
February 3	11 - Midnight	PEP (KFYR-AM)
March 2	2 - 3 PM	Local PSAP
April 6	11 - Midnight	ND State Radio
May 4	2 - 3 PM	PEP (KFYR-AM)
June 1	11 - Midnight	Local PSAP
July 6	2 - 3 PM	ND State Radio
August 3	11 - Midnight	PEP (KFYR-AM)
September 7	2 - 3 PM	Local PSAP
October 5	11 - Midnight	ND State Radio
November 2	2 - 3 PM	PEP (KFYR-AM)
December 7	11 - Midnight	Local PSAP

ND State Radio - (Statewide Alert Dissemination or Local backup)
PEP - Primary Entry Point (National Emergency Dissemination)
PSAP - Public Safety Answering Point (Local Emergencies within Designated Jurisdictions)

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Appendix 11: IPAWS/EAS EVENT CODES

The following list provides approved event codes and names generally related to hazardous situations that may occur in North Dakota:

WARNINGS:
Warning messages are issued for those events that alone pose a significant threat to public safety and/or property, probability of occurrence and location is high, and the onset time is relatively short.

- **Civil Danger Warning (CDW)**: An event that presents a danger to a significant civilian population. The CDW, which usually warns of a specific hazard and gives specific protective action, has a higher priority than the Civil Emergency Message (CEM) or Local Area Emergency (LAE). Examples include contaminated water supply, conditions preventing emergency response or rescue operations, or terrorist attack.

- **Earthquake Warning (EQW)** A warning of current or imminent earthquake activity. Authorized officials may recommend or order protective actions according to state law or local ordinance.

- **Fire Warning (FRW)** A warning of a spreading wildfire or structural fire that threatens a populated area. Evacuation of areas in the fire's path may be recommended by authorized officials according to state law or local ordinance.

- **Hazardous Materials Warning (HMW)** A warning of the release of a non-radioactive hazardous material (such as a flammable gas, toxic chemical, or biological agent) that may recommend localized evacuation (for an explosion, fire or oil spill hazard) or shelter in place (for a toxic fume hazard).

- **Law Enforcement Warning (LEW)** A warning of a criminal event (e.g. a jailbreak, bomb explosion, riot, etc.) in which authorized law enforcement officers may blockade, evacuate or deny access to affected areas, and arrest violators or suspicious persons.

- **Radiological Hazard Warning (RHW)** A warning of the loss, discovery, or release of a radiological hazard. Examples include theft of a radioactive isotope used for medical, seismic, or other purposes; the discovery of radioactive materials; or a transportation (aircraft, truck or rail, etc.) accident which may involve nuclear weapons, nuclear fuel, or radioactive wastes. Authorized officials may recommend protective actions to be taken if a radioactive hazard is discovered.

EMERGENCIES:
Emergency messages are issued for those events that by themselves would not kill or injure or do property damage but indirectly may cause other things to happen that result in a hazard.

- **Child Abduction Emergency (CAE)** A child abduction alert bulletin issued after a law enforcement agency report of a child abduction has been received. (AMBER Alert)

- **Civil Emergency Message (CEM)** An emergency message regarding an in-progress or imminent significant threat(s) to public safety and/or property, with higher priority than the Local Area Emergency (LAE), but less hazard-specific then the Civil Danger Warning (CDW). For example, the CEM could be used to describe mandatory water conservation measures or travel restrictions due to major storm or flood damages threatening public safety.

- **Local Area Emergency (LAE)**: A localized event that could escalate, contribute to other more serious events, or disrupt critical public safety services. Examples include temporary disruption in water, electric or natural gas service, local road closures due to excessive snowfall, or a potential terrorist threat where the public is asked to remain vigilant.

- **911 Telephone Outage Emergency (TOE)** An emergency message that defines a local or state 911 telephone network outage by geographic area or telephone exchange. Authorized officials may provide alternative phone numbers in which to reach emergency response dispatch personnel.

If you wish to focus more on the instructions to the public than the particular hazard, there are two instruction-specific event names/codes available:

- **Evacuation Immediate (EVI):** This event name/code is most appropriately used to instruct the public of a mandatory evacuation for imminent events. For longer lead times, (e.g. several days), or voluntary evacuations other methods of communication may be more appropriate such as media advisories.

- **Shelter in Place Warning (SPW):** This event name/code may be appropriate for hazardous materials, radiological, law enforcement, or other types of events; however it is more effective if your community has been educated as to its meaning in advance.

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APPENDIX 12– BROADCAST DESIGNATIONS AND MONITORING ASSIGNMENTS

BISMARCK OPERATIONAL AREA

(Burleigh, Emmons, Grant, Kidder, Mercer, Morton, Oliver, Sheridan, Sioux, and Wells Counties)

Station	Location	Frequency	EAS Designation	Primary EAS Monitoring Assignment	Secondary EAS Assignment	Other Assignment
KFYR-AM	Bismarck	550	PEP-NP-SP-BSPP-LP1	National Communications System	NOAA	IPAWS Feed https://apps.fema.gov
KACL-FM	Bismarck	98.7	PN	KFYR-AM	NOAA	IPAWS
KBME-TV	Bismarck	Digital Chnl-22	PN	KFGO-AM	NOAA	KCND-FM
KBMR-AM	Bismarck	1130	PN	KFYR-AM	NOAA	IPAWS
KBMY-TV	Bismarck	Chnl-17	PN	KFYR-AM	NOAA	IPAWS
KBYZ-FM	Bismarck	96.5	PN	KFYR-AM	NOAA	IPAWS
KCND-FM	Bismarck	90.5	PN	KFYR-AM	NOAA	IPAWS
KFYR-TV	Bismarck	Digital Chnl-31	PN	KFYR-AM	NOAA	IPAWS
KHND-AM	Harvey	1470	PN	KFGO-AM	KSJB-AM	IPAWS/NOAA
KHOL-AM	Beulah	1410	PN	KFYR-AM	NOAA	IPAWS
KKCT-FM	Bismarck	97.5	PN	KFYR-AM	NOAA	IPAWS
KLXX-AM	Bismarck	1270	PN	KFYR-AM	NOAA	IPAWS
KNDR-FM	Mandan	104.7	PN	KFYR-AM	NOAA	IPAWS
KNDX-TV	Bismarck	Chnl-26	PN	KFYR-AM	NOAA	IPAWS
KQDY-FM	Bismarck	94.5	PN	KFYR-AM	NOAA	IPAWS
KSSS-FM	Bismarck	101.5	PN	KFYR-AM	NOAA	IPAWS
KXMB-TV	Bismarck	Chnl-12	PN	KFYR-AM	NOAA	IPAWS

KXMR-AM	Bismarck	710	PN	KFYR-AM	NOAA	IPAWS
KYYY-FM	Bismarck	92.9	PN	KFYR-AM	NOAA	IPAWS
KXRP-FM	Bismarck	91.3	PN	KNDR-FM	NOAA	IPAWS

DEVILS LAKE OPERATIONAL AREA

(Benson, Cavalier, Eddy, Nelson, Ramsey and Towner Counties)

Station	Location	Frequency	EAS Designation	Primary EAS Monitoring Assignment	Secondary EAS Assignment	Other Assignment
KDLR-AM	Devils Lake	1240	LP-1/BSPP	KFYR-AM	NOAA	IPAWS
KAOC-FM	Langdon	105.1	PN	KDLR-AM	KDVL-FM	IPAWS/NOAA
KBRR-JHF	Devils Lake	K23J Chnl-23				IPAWS/NOAA
KDVL-FM	Devils Lake	102.5	PN	KFYR-AM	NOAA	IPAWS
KNDK-AM	Langdon	1080	PN	KDLR-AM	KDVL-FM	IPAWS/NOAA
KNDK-FM	Langdon	95.7	PN	KDLR-AM	KDVL-FM	IPAWS/NOAA
KQZZ-FM	Devils Lake	103.5	PN	KDLR-AM	NOAA	IPAWS
KZZY-FM	Devils Lake	103.5	PN	KDLR-AM	NOAA	IPAWS
WDAZ-TV	Devils Lake	Chnl-8	PN	KDVL-FM	NOAA	IPAWS
KPPD-FM	Devils Lake	91.7	PN	KFYR-AM	NOAA	IPAWS
KMDE-TV	Devils Lake	Digital Chnl-25	PN	KFGO-AM	NOAA	IPAWS
KYTZ-FM	Langdon	106.7	PN	KDLR-AM	KDVL-FM	IPAWS/NOAA
KXYM-LPFM	Belcourt	98.9	PN	KDLR-AM	KDVL-FM	IPAWS/NOAA

DICKINSON OPERATIONAL AREA

(Adams, Billings, Bowman, Dunn, Golden Valley, Hettinger, Slope and Stark Counties)

Station	Location	Frequency	EAS Designation	Primary EAS Monitoring Assignment	Secondary EAS Assignment	Other Assignment
KLTC-AM	Dickinson	1460	LP-1/BSPP	KFYR-AM	NOAA	IPAWS
KCAD-FM	Dickinson	99.1	PN	KFYR-AM	NOAA	IPAWS
KDIX-AM	Dickinson	1230	PN	KLTC-AM	NOAA	IPAWS
KDPR-FM	Dickinson	89.9	PN	KFYR-AM	NOAA	IPAWS
KDSE-TV	Dickinson	Digital Chnl-9	PN	KFGO-AM	NOAA	IPAWS/KCND-FM
KNDC-AM	Hettinger	1490	PN	KLTC-AM	NOAA	IPAWS
KPOK-AM	Bowman	1340	PN	KFYR-AM	NOAA	IPAWS
KQCD-TV	Dickinson	Digital Chnl-7	PN	KLTC-AM	NOAA	IPAWS
KRRB-FM	Dickinson	99.1	PN	KFYR-AM	NOAA	IPAWS
KXMA-TV	Dickinson	Chnl-2	PN	KFYR-AM	NOAA	IPAWS

FARGO OPERATIONAL AREA

(Barnes, Cass, Ransom, Richland, Sargent, Steele and Traill Counties)

Station	Location	Frequency	EAS Designation	Primary EAS Monitoring Assignment	Secondary EAS Assignment	Other Assignment
KFGO-AM	Fargo	790	LP-1/BSPP	KSJB-AM	NOAA	IPAWS
KBMW-AM	Wahpeton	1450	PN	KFGO-AM	NOAA	IPAWS
KDSU-FM	Fargo	91.9	PN	KFGO-AM	NOAA	IPAWS
KEGK-FM	Wahpeton	106.9	PN	KFGO-AM	NOAA	IPAWS
KFME-TV	Fargo	Digital Chnl-13	PN	KFGO-AM	NOAA	IPAWS/KFYR-AM
KFNW-AM	Fargo	1200	PN	KFGO-AM	NOAA	IPAWS/KFGO-FM
KFNW-FM	Fargo	97.9	PN	KFGO-AM	NOAA	IPAWS
KLTA-FM	Fargo	98.7	PN	KFGO-AM	NOAA	IPAWS
KMAV-AM	Mayville	1520	PN	KFGO-AM	NOAA	IPAWS
KMAV-FM	Mayville	105.5	PN	KFGO-AM	NOAA	IPAWS
KMJO-FM	Hope	104.7	PN	KFGO-AM	NOAA	IPAWS
KOCL-FM	West Fargo	96.7				IPAWS
KOVC-AM	Valley City	1490	PN	KFGO-AM	KSJB	IPAWS/NOAA
KPFX-FM	Fargo	107.9	PN	KFGO-AM	NOAA	IPAWS
KQDJ-FM	Valley City	101.1	PN	KFGO-AM	KSJB	IPAWS/NOAA
KQLX-AM	Lisbon	890	PN	KFGO-AM	NOAA	IPAWS
KQLX-FM	Lisbon	106.1	PN	KFGO-AM	NOAA	IPAWS
KQWB-AM	Fargo	1660	PN	KFGO-AM	NOAA	IPAWS/KRWK-FM
KQWB-FM	Fargo	105.1	PN	KFGO-AM	NOAA	IPAWS
KRDK-TV	Fargo	Chnl-38	PN	KFGO-AM	NOAA	IPAWS

KRWK-FM	Fargo	101.9	PN	KFGO-AM	NOAA	IPAWS
KVLY-TV	Fargo	Chnl-11 UHF-44	PN	KFGO-AM	NOAA	IPAWS
KVOX-AM	Fargo	740	PN	KFGO-AM	NOAA	IPAWS
KVOX-FM	Fargo	99.9	PN	KFGO-AM	NOAA	IPAWS
KVRR-TV	Fargo	Chnl-15	PN	KFGO-AM	NOAA	IPAWS
KZDR-FM	Fargo	92.7	PN	KFGO-AM	NOAA	IPAWS
KZTK-FM	West Fargo	103.9	PN	KFGO-AM	NOAA	IPAWS
WDAY-AM	Fargo	970	PN	KFGO-AM	NOAA	IPAWS
WDAY-FM	Fargo	93.7	PN	KFGO-AM	NOAA	IPAWS
WDAY-TV	Fargo	Chnl-6	PN	KFGO-AM	NOAA	IPAWS
KXJB-DT	Horace	Chnl-30	PN	KFGO-AM	NOAA	IPAWS
K28MA-D	Argusville	Chnl-28	PN	KFGO-AM	NOAA	IPAWS
K30LR-D	Grand Forks	Chnl 30	PN	KFGO-AM	NOAA	IPAWS

GRAND FORKS OPERATIONAL AREA

(Grand Forks, Griggs, Pembina, and Walsh Counties)

Station	Location	Frequency	EAS Designation	Primary EAS Monitoring Assignment	Secondary EAS Assignment	Other Assignment
KNOX-AM	Grand Forks	1310	LP-1, BSPP	KFGO-AM	NOAA	IPAWS
KCGE-TV	Crookston	Digital Chnl-16	PN	KFGO-AM	NOAA	IPAWS
KCNN-AM	Grand Forks	1590	PN	MN Public Radio (MPR)	NOAA	IPAWS
KFJM-AM	Grand Forks	1370	PN	KNOX-AM	NOAA	IPAWS
KFJM-FM	Grand Forks	90.7	PN	KNOX-AM	NOAA	IPAWS
KFJY-FM	Grand Forks	90.7	PN	KNOX-AM	NOAA	IPAWS
KGFE-TV	Grand Forks	Digital Chnl-15	PN	KFGO-AM	NOAA	IPAWS
KJKJ-FM	Grand Forks	107.5	PN	KNOX-AM	NOAA	IPAWS
KKXL-AM	Grand Forks	1440	PN	KNOX-AM	NOAA	IPAWS
KKXL-FM	Grand Forks	92.9	PN	KNOX-AM	NOAA	IPAWS
KNOX-FM	Grand Forks	94.7	PN	KFGO-AM	NOAA	IPAWS
KNRR-TV	Neche	Chnl-12	PN			IPAWS
KQHT-FM	Grand Forks	96.1	PN	MPR	NOAA	IPAWS
KNSR-FM	Grand Forks	100.3		MPR	NOAA	IPAWS
KUND-FM	Grand Forks	89.3	PN	KNOX-AM	NOAA	IPAWS
KXPO-AM	Grand Forks	1340	PN	KNOX-AM	NOAA	IPAWS
KXPO-FM	Grand Forks	100.9	PN	KNOX-AM	NOAA	IPAWS

JAMESTOWN OPERATIONAL AREA

(Dickey, Foster, LaMoure, Logan, McIntosh and Stutsman Counties)

Station	Location	Frequency	EAS Designation	Primary EAS Monitoring Assignment	Secondary EAS Assignment	Other Assignment
KSJB-AM	Jamestown	600	LP-1, BSPP	KFYR-AM	NOAA	IPAWS
K32AP	Windsor	Chnl-32 Cable Chnl-9	PN			IPAWS/NOAA
KDAK-AM	Carrington	1600	PN	KFGO-AM	KSJB-AM	IPAWS/NOAA
KDDR-AM	Oakes	1220	PN			IPAWS/NOAA
KJRE-TV	Ellendale	Digital Chnl-20	PN	KFGO-AM	NOAA	IPAWS/KCND-FM
KJRR-TV	Jamestown	Chnl-7	PN			IPAWS
KPRJ-FM	Jamestown	91.5	PN	KFYR-AM	NOAA	IPAWS
KQDJ-AM	Jamestown	1400	PN	KSJB-AM	KFYR-AM	IPAWS/NOAA
KSJZ-FM	Jamestown	93.3	PN	KFYR-AM	NOAA	IPAWS
KXGT-FM	Jamestown	95.5	PN	KSJB-AM	KFYR-AM	IPAWS/NOAA
KYNU-FM	Jamestown	98.3	PN	KSJB-AM	KFYR-AM	IPAWS/NOAA
KZEB-LP	Jamestown	99.7	PN	KSJB-AM	KFYR-AM	NOAA
KQHT-FM	Grand Forks	96.1	PN	MPR	NOAA	IPAWS
KNSR-FM	Grand Forks	100.3		MPR	NOAA	IPAWS
KUND-FM	Grand Forks	89.3	PN	KNOX-AM	NOAA	IPAWS
KXPO-AM	Grand Forks	1340	PN	KNOX-AM	NOAA	IPAWS
KXPO-FM	Grand Forks	100.9	PN	KNOX-AM	NOAA	IPAWS

MINOT OPERATIONAL AREA

(Bottineau, Burke, McHenry, McLean, Mountrail, Pierce, Renville, Rolette and Ward Counties)

Station	Location	Frequency	EAS Designation	Primary EAS Monitoring Assignment	Secondary EAS Assignment	Other Assignment
KCJB-AM	Minot	910	LP-1/BSPP	KFYR-AM	NOAA	IPAWS
K20AM	Rolette	Chnl-20	PN			IPAWS
KBTO-FM	Bottineau	101.9	PN			IPAWS
KEYA-FM	Belcourt	88.5	PN	KYYX-FM	NOAA	IPAWS/KDLR-AM
KHRT-AM	Minot	1320	PN	KCJB-AM	NOAA	IPAWS
KHRT-FM	Minot	106.9	PN			IPAWS/NOAA
KIZZ-FM	Minot	93.7	PN	KCJB-AM	NOAA	IPAWS
KMOT-TV	Minot	Digital Chnl-10	PN	KCJB-AM	NOAA	IPAWS
KMCY-TV	Minot	Chnl-14	PN	KFYR-AM	NOAA	IPAWS
KMHA-FM	Newtown	91.3	PN			IPAWS
KMPR-FM	Minot	88.9	PN	KFYR-AM	NOAA	IPAWS
KRRZ-AM	Minot	1390	PN	KCJB-AM	NOAA	IPAWS
KSRE-TV	Minot	Digital Chnl-40	PN	KFGO-AM	NOAA	IPAWS/KCND-FM
KTZU-FM	Velva	94.9	PN			IPAWS/NOAA
KWGO-FM	Burlington	102.9	PN			IPAWS/NOAA
KXMA-FM	Minot	99.9	PN	KCJB-AM	NOAA	IPAWS
KXMC-TV	Minot	Chnl-13	PN	KCJB-AM	NOAA	IPAWS
KXND-TV	Minot	Chnl-24	PN	KCJB-AM	NOAA	IPAWS/KFYR-AM
KYYX-FM	Minot	97.1	PN	KCJB-AM	NOAA	IPAWS
KZZJ-AM	Rugby	1450	PN	KYYX-FM	KMPR-FM	IPAWS/NOAA

WILLISTON OPERATIONAL AREA

(Divide, McKenzie, and Williams Counties and Richland County Montana)

Station	Location	Frequency	EAS Designation	Primary EAS Monitoring Assignment	Secondary EAS Assignment	Other Assignment
KEYZ-AM	Williston	660	LP-1/BSPP	KFYR-AM	NOAA	IPAWS
KDSR-FM	Williston	101.1	PN	KEYZ-AM		IPAWS/NOAA
KPPR-FM	Williston	89.5	PN	KFYR-AM	NOAA	IPAWS
KPPW-FM	Williston	88.7	PN	KFYR-AM	NOAA	IPAWS
KTGO-AM	Tioga	1090	PN	KEYZ-AM	KYYZ-FM	IPAWS/NOAA
KTHC-FM	Sidney, MT	95	PN	KEYZ-AM	NOAA	IPAWS
KUMV-TV	Williston	Digital Chnl-8	PN	KEYZ-AM	NOAA	IPAWS
KWSE-TV	Williston	Digital Chnl-11	PN	KFGO-AM	NOAA	IPAWS/KCND-FM
KXMD-TV	Williston	Chnl-11	PN	KFYR-AM	NOAA	IPAWS
KYYZ-FM	96.1	PN	PN	KFYR-AM	NOAA	IPAWS

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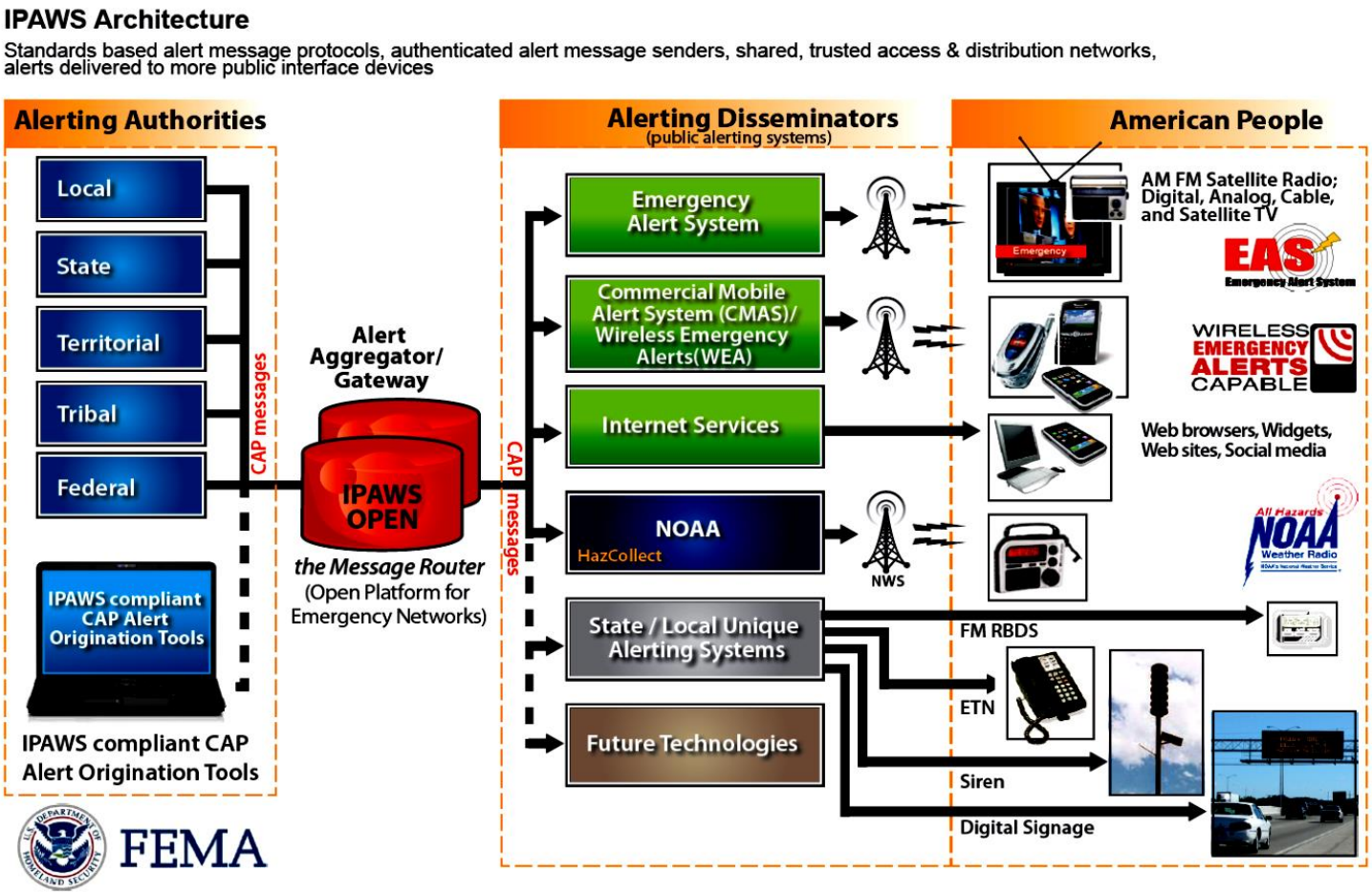
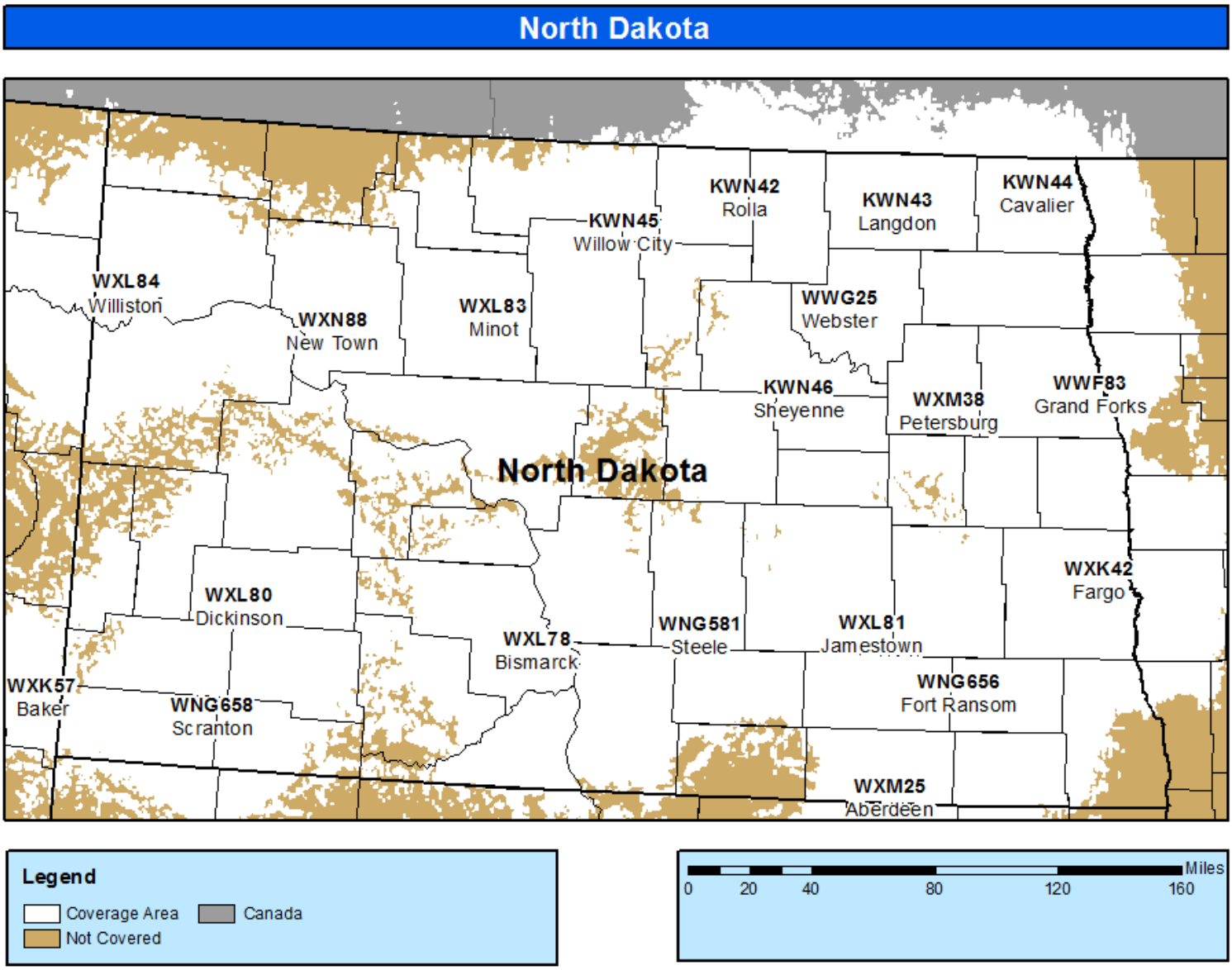
APPENDIX 13: IPAWS ARCHITECTURE



APPENDIX 14: NOAA WEATHER RADIO COVERAGE

NWR Coverage

Station Listing County Coverage Listing



Coverage Map Notes

The coverage statistics and maps are calculated using a computer model and station data assuming ideal conditions. Coverage may be 5 to 10 percent below the computer predicted coverage for the following reasons:

- The computer model is sensitive to antenna performance. Antenna performance is a function of local conditions, causing signals to be stronger signal level in some directions than others.
- Placement of NWR antennas is dictated by the tower owner, which may result in a less than ideal set up.
- The antenna may be affected by nearby structures or bodies of water.
- In some special instances, the antenna may have been intentionally adjusted to be "directional" and provide better coverage to a specific area to the detriment of other areas.
- Because of variations in local site conditions, the performance of an individual transmitter and antenna may be less than predicted or expected.
- Seasonal environmental conditions, such as icing or heavy rain, affect performance of a transmitter station and its various components, particularly those subject to continuous weather exposure.
- The coverage maps are shown in a single color format, which relates to an estimated signal level.
    - White: Signal level of greater than 18dBuV: Reliable coverage

Click on a column heading to sort.
***W**eather **F**orecast **O**ffice (WFO)*

Station Listing

Site Name	Transmitter Name	Call Sign	Frequency	Power	WFO
Rolla	Rolla	KWN42	162.475	300	Bismarck, ND
Langdon	Langdon	KWN43	162.500	300	Grand Forks, ND
Cavalier	Hansel	KWN44	162.450	300	Grand Forks, ND
Willow City	Bottineau	KWN45	162.450	300	Bismarck, ND
Sheyenne	Sheyenne	KWN46	162.525	1000	Grand Forks, ND
Steele	Steele	WNG581	162.400	300	Bismarck, ND
Fort Ransom	Fort Ransom	WNG656	162.525	1000	Grand Forks, ND
Scranton	Bowman County	WNG658	162.525	1000	Bismarck, ND
Grand Forks	Grand Forks	WWF83	162.475	300	Grand Forks, ND
Webster	Devils Lake/Sweetwater	WWG25	162.425	300	Grand Forks, ND
Fargo	Fargo	WXK42	162.475	1000	Grand Forks, ND
Bismarck	St. Anthony	WXL78	162.475	1000	Bismarck, ND
Dickinson	Daglum	WXL80	162.400	1000	Bismarck, ND
Jamestown	Cable Serv. Tower/Ypsilanti	WXL81	162.550	1000	Bismarck, ND
Minot	South Prarie	WXL83	162.400	1000	Bismarck, ND
Williston	Williston	WXL84	162.550	1000	Bismarck, ND
Petersburg	Dahlen	WXM38	162.400	1000	Grand Forks, ND
New Town	Belden (AG)	WXN88	162.525	300	Bismarck, ND

Number of Stations in North Dakota = 18

County Coverage Listing

County/City/Area	SAME	Transmitter	Site State	Call Sign	Frequency	Power	WFO
Adams	038001	Scranton	ND	WNG658	162.525	1000	Bismarck, ND
Barnes	038003	Jamestown	ND	WXL81	162.550	1000	Bismarck, ND
Barnes	038003	Fargo	ND	WXK42	162.475	1000	Grand Forks, ND
Barnes	038003	Fort Ransom	ND	WNG656	162.525	1000	Grand Forks, ND
Benson	038005	Webster	ND	WWG25	162.425	300	Grand Forks, ND
Benson	038005	Sheyenne	ND	KWN46	162.525	1000	Grand Forks, ND
Billings	038007	Dickinson	ND	WXL80	162.400	1000	Bismarck, ND
Bottineau	038009	Willow City	ND	KWN45	162.450	300	Bismarck, ND
Bottineau	038009	Minot	ND	WXL83	162.400	1000	Bismarck, ND
Bottineau	038009	Rolla	ND	KWN42	162.475	300	Bismarck, ND
Bowman	038011	Scranton	ND	WNG658	162.525	1000	Bismarck, ND
Bowman	038011	Baker	MT	WXK57	162.550	300	Billings, MT
Burke	038013	Minot	ND	WXL83	162.400	1000	Bismarck, ND
Burleigh	038015	Steele	ND	WNG581	162.400	300	Bismarck, ND
Burleigh	038015	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
Cass	038017	Fargo	ND	WXK42	162.475	1000	Grand Forks, ND
Cavalier	038019	Webster	ND	WWG25	162.425	300	Grand Forks, ND

Cavalier	038019	Langdon	ND	KWN43	162.500	300	Grand Forks, ND
Cavalier	038019	Petersburg	ND	WXM38	162.400	1000	Grand Forks, ND
Dickey	038021	Jamestown	ND	WXL81	162.550	1000	Bismarck, ND
Dickey	038021	Aberdeen	SD	WXM25	162.475	1000	Aberdeen, SD
Divide	038023	Williston	ND	WXL84	162.550	1000	Bismarck, ND
Dunn	038025	New Town	ND	WXN88	162.525	300	Bismarck, ND
Dunn	038025	Dickinson	ND	WXL80	162.400	1000	Bismarck, ND
Eddy	038027	Sheyenne	ND	KWN46	162.525	1000	Grand Forks, ND
Eddy	038027	Petersburg	ND	WXM38	162.400	1000	Grand Forks, ND
Emmons	038029	Lowry	SD	WXM40	162.500	1000	Aberdeen, SD
Emmons	038029	Steele	ND	WNG581	162.400	300	Bismarck, ND
Emmons	038029	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
Foster	038031	Jamestown	ND	WXL81	162.550	1000	Bismarck, ND
Foster	038031	Sheyenne	ND	KWN46	162.525	1000	Grand Forks, ND
Foster	038031	Fort Ransom	ND	WNG656	162.525	1000	Grand Forks, ND
Golden Valley	038033	Dickinson	ND	WXL80	162.400	1000	Bismarck, ND
Grand Forks	038035	Petersburg	ND	WXM38	162.400	1000	Grand Forks, ND
Grand Forks	038035	Grand Forks	ND	WWF83	162.475	300	Grand Forks, ND
Grant	038037	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
Griggs	038039	Petersburg	ND	WXM38	162.400	1000	Grand Forks, ND

Griggs	038039	Sheyenne	ND	KWN46	162.525	1000	Grand Forks, ND
Hettinger	038041	Scranton	ND	WNG658	162.525	1000	Bismarck, ND
Hettinger	038041	Dickinson	ND	WXL80	162.400	1000	Bismarck, ND
Kidder	038043	Steele	ND	WNG581	162.400	300	Bismarck, ND
Kidder	038043	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
LaMoure	038045	Jamestown	ND	WXL81	162.550	1000	Bismarck, ND
Logan	038047	Steele	ND	WNG581	162.400	300	Bismarck, ND
Logan	038047	Jamestown	ND	WXL81	162.550	1000	Bismarck, ND
McHenry	038049	Willow City	ND	KWN45	162.450	300	Bismarck, ND
McHenry	038049	Minot	ND	WXL83	162.400	1000	Bismarck, ND
McHenry	038049	Rolla	ND	KWN42	162.475	300	Bismarck, ND
McIntosh	038051	Lowry	SD	WXM40	162.500	1000	Aberdeen, SD
McIntosh	038051	Jamestown	ND	WXL81	162.550	1000	Bismarck, ND
McKenzie	038053	Williston	ND	WXL84	162.550	1000	Bismarck, ND
McLean	038055	New Town	ND	WXN88	162.525	300	Bismarck, ND
McLean	038055	Minot	ND	WXL83	162.400	1000	Bismarck, ND
Mercer	038057	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
Morton	038059	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
Mountrail	038061	Minot	ND	WXL83	162.400	1000	Bismarck, ND
Mountrail	038061	New Town	ND	WXN88	162.525	300	Bismarck, ND

Nelson	038063	Webster	ND	WWG25	162.425	300	Grand Forks, ND
Nelson	038063	Petersburg	ND	WXM38	162.400	1000	Grand Forks, ND
Oliver	038065	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
Pembina	038067	Petersburg	ND	WXM38	162.400	1000	Grand Forks, ND
Pembina	038067	Cavalier	ND	KWN44	162.450	300	Grand Forks, ND
Pierce	038069	Willow City	ND	KWN45	162.450	300	Bismarck, ND
Pierce	038069	Sheyenne	ND	KWN46	162.525	1000	Grand Forks, ND
Pierce	038069	Rolla	ND	KWN42	162.475	300	Bismarck, ND
Pierce	038069	Fort Ransom	ND	WNG656	162.525	1000	Grand Forks, ND
Pierce	038069	Minot	ND	WXL83	162.400	1000	Bismarck, ND
Ramsey	038071	Webster	ND	WWG25	162.425	300	Grand Forks, ND
Ramsey	038071	Petersburg	ND	WXM38	162.400	1000	Grand Forks, ND
Ransom	038073	Sheyenne	ND	KWN46	162.525	1000	Grand Forks, ND
Ransom	038073	Fargo	ND	WXK42	162.475	1000	Grand Forks, ND
Renville	038075	Minot	ND	WXL83	162.400	1000	Bismarck, ND
Richland	038077	Fargo	ND	WXK42	162.475	1000	Grand Forks, ND
Richland	038077	Fort Ransom	ND	WNG656	162.525	1000	Grand Forks, ND
Rolette	038079	Willow City	ND	KWN45	162.450	300	Bismarck, ND
Rolette	038079	Minot	ND	WXL83	162.400	1000	Bismarck, ND
Rolette	038079	Rolla	ND	KWN42	162.475	300	Bismarck, ND

Sargent	038081	Fort Ransom	ND	WNG656	162.525	1000	Grand Forks, ND
Sargent	038081	Fargo	ND	WXK42	162.475	1000	Grand Forks, ND
Sheridan	038083	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
Sioux	038085	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
Slope	038087	Scranton	ND	WNG658	162.525	1000	Bismarck, ND
Slope	038087	Dickinson	ND	WXL80	162.400	1000	Bismarck, ND
Slope	038087	Baker	MT	WXK57	162.550	300	Billings, MT
Stark	038089	Dickinson	ND	WXL80	162.400	1000	Bismarck, ND
Steele	038091	Petersburg	ND	WXM38	162.400	1000	Grand Forks, ND
Steele	038091	Fargo	ND	WXK42	162.475	1000	Grand Forks, ND
Stutsman	038093	Steele	ND	WNG581	162.400	300	Bismarck, ND
Stutsman	038093	Sheyenne	ND	KWN46	162.525	1000	Grand Forks, ND
Stutsman	038093	Fort Ransom	ND	WNG656	162.525	1000	Grand Forks, ND
Stutsman	038093	Jamestown	ND	WXL81	162.550	1000	Bismarck, ND
Towner	038095	Willow City	ND	KWN45	162.450	300	Bismarck, ND
Towner	038095	Rolla	ND	KWN42	162.475	300	Bismarck, ND
Towner	038095	Webster	ND	WWG25	162.425	300	Grand Forks, ND
Traill	038097	Fargo	ND	WXK42	162.475	1000	Grand Forks, ND
Walsh	038099	Petersburg	ND	WXM38	162.400	1000	Grand Forks, ND
Ward	038101	Minot	ND	WXL83	162.400	1000	Bismarck, ND

Wells	038103	Sheyenne	ND	KWN46	162.525	1000	Grand Forks, ND
Wells	038103	Bismarck	ND	WXL78	162.475	1000	Bismarck, ND
Williams	038105	Williston	ND	WXL84	162.550	1000	Bismarck, ND

APPENDIX 15

North Dakota
State Emergency Communications Committee
Bylaws

ARTICLE I – NAME

1.1 - North Dakota State Emergency Communications Committee (SECC).

ARTICLE II – PURPOSE

2.1 - Establish, maintain and authorize implementation of the North Dakota State Alert and Warning Plan, including, but not limited to, the following systems:

- Integrated Public Alert and Warning System (IPAWS)
- Emergency Alert System (EAS)
- Wireless Emergency Alerts (WEA), and
- Non-Weather Emergency Messaging (NWEM) accessing the NOAA/National Weather Service (NWS) radio system

2.2 - Coordinate Alert and Warning message reception and distribution capabilities among key partners, including broadcasters, cable companies, wireless providers, the North Dakota Department of Emergency Services (NDDES), NOAA/NWS, the Federal Emergency Management Association (FEMA), Federal Communications Commission (FCC), neighboring States and Canadian Provinces, local Public Safety Answering Points (PSAPs) and other present and future State Alert and Warning System participants.

2.3 – In compliance with the FCC Electronic Code of Federal Regulations (eCFR), Title 47, Part 11.21, since the state's EAS system is capable of initiating EAS messages formatted in the Common Alerting Protocol (CAP), its EAS State Plan (which is an Annex to the State Alert and Warning Plan) must include specific and detailed information describing how such messages will be aggregated and distributed to EAS Participants within the state, including the monitoring requirements associated with distributing such messages. As such, the SECC will ensure state and local warning plans are consistent with national plans, FCC regulations, and EAS and IPAWS operation.

2.4 - The FCC, in Part 11.61 (a) (1), requires the SECC to establish times and scripts for EAS Required Monthly Tests (RMTs) in cooperation with effected parties.

2.5 – The SECC will establish, maintain and distribute EAS test schedules for the activation of EAS tests by the state's nationally designated Primary Entry Point (PEP) station, State Emergency Operations Center (SEOC) and statewide PSAPs.

ARTICLE III – AUTHORITY

3.1 - The FCC in the Code of Federal Regulations, Title 47, Part 11.21, requires each state to have a State Plan, of which local plans may be included. These plans are reviewed by the FCC and implies the existence of an associated state organization.

3.3 - The State Alert and Warning Plan, developed by the SECC, shall be approved and signed by the following parties:

- The Governor of the State of North Dakota
- Representatives from:
  - Radio Broadcasting
  - Television Broadcasting
  - North Dakota Broadcasters Association Executive Director
  - Cable Television
  - Federal Agencies including FEMA and FCC
  - North Dakota Department of Emergency Services, and
  - NOAA/National Weather Service

3.4 – The SECC shall have the authority to determine SECC policies. When a consensus of the SECC members cannot be reached, the SECC Chair shall make the final decision.

3.5 - The SECC Chair, with the concurrence of the SECC members, may appoint such permanent or ad hoc sub-committees as necessary to better facilitate the business of the Committee.

ARTICLE IV – MEMBERSHIP

4.1 - Membership of the SECC shall consist of an appointed SECC Chairperson, Regional Chairpersons appointed in the Northwest, Southwest, Northeast and Southeast regions within the state of North Dakota, representatives from the NOAA/NWS, ND Department of Emergency Services, and the Executive Director of the North Dakota Broadcasters Association, as well as others who may be required by the SECC as full participants in the planning process.

4.2 - The Regional Emergency Communications Committees (RECCs) are sub-committees of the SECC.

4.3 - Other interested local and state governmental agencies, businesses, or organizations may fully participate in the process without a vote. These participants may be appointed to committees by the Chair of the SECC.

ARTICLE V – ELECTION OF CHAIR AND MEMBERS

5.1 - Officers must be selected from the participants described in Articles III and IV

5.2 - The SECC Chair shall be elected by the members described in Articles III and IV

5.3 - No compensation shall be paid to any officer.

5.4 - An Officer may resign by submitting his or her resignation, in writing, to the NDDES.

5.5 - Officers are subject to removal by a vote of the members of the SECC as provided in Section 7.1.

5.6 - The SECC Chair shall be the principle executive officer of the SECC and shall in general supervise and control the business and affairs of the SECC. He or she shall preside at all SECC meetings. He or she may sign may sign any contract, or other instruments which the SECC has authorized to be executed.

5.8 - The SECC Chair, with the concurrence of SECC members, shall appoint a Recording Secretary who shall record a summary of all SECC meetings and distribute meeting summaries to SECC members via email.

ARTICLE VII – DECISION PROCESS

7.1 - Decisions will be by majority vote of the SECC members present, except for modifications of the Bylaws, which will require a two-thirds majority vote.

7.2 - Each member of the SECC as described in Section 4.1 shall have one vote.

7.3 - Twenty-five percent (25%) of the membership of the SECC shall constitute a quorum for the conduct of business by the SECC at any meeting, whether in attendance in-person or by conference call. However, notwithstanding the presence or absence of a quorum at any time during an SECC meeting, the Chair, where attendance and/or participation is minimal, and with the concurrence of the SECC members present, may elect to defer decisions until the next scheduled SECC meeting.

ARTICLE VIII – MEETINGS

8.1 - The SECC shall hold meetings approximately every 90 days, unless otherwise determined by the SECC.

8.2 - Meeting notification shall be a least 30 days prior to the event.

8.3 - Meeting notification shall be via email.

8.4 - The date, time and location of meetings shall be determined by the SECC members.

ARTICLE IX – COMMUNICATIONS

9.1 - The SECC shall maintain an email communications system that shall be open to everyone in the state having an interest in the State Alert and Warning Plan or any of its system (EAS, WEA, NWEM and/or IPAWS).

9.2 - This email system, commonly referred to as a List Serv, shall be the official method of communications between all parties involved in development and maintenance of the State Alert and Warning plan.

ARTICLE X – AMENDMENTS

10.1 - Any proposed amendment to these By-Laws must be distributed, via the State SECC ListServ, at least 30 days prior to the meeting in which the amendment(s) will be considered for adoption.

10.2 - Amendments to these Bylaws shall be made by a two-thirds majority vote of SECC members.

10.3 - The SECC Bylaws will be reviewed at least every two years.

APPENDIX 16: SECC MEMBERSHIP

Membership of the SECC shall consist of an SECC Chairperson appointed by consensus vote of standing members, Regional Chairpersons appointed to represent the Northwest, Southwest, Northeast and Southeast regions of the state, representatives from the NOAA/NWS, ND Department of Emergency Services, and the Executive Director of the North Dakota Broadcasters Association, as well as others who may be required by the SECC as full participants in the planning process.

Regional Emergency Communications Committees (RECCs) are sub-committees of the SECC.

Other interested local and state governmental agencies, private sector businesses, or organizations may fully participate in the process without a vote. These participants may be appointed to committees by the Chair of the SECC.

SECC Committee Members:

Allison Bostow - SVPP, iHeartMedia, Minot ……...SECC Chair
Beth Helfrich, ND Broadcasters Association, Bismarck
Vacant……. Northwest Region Chair
Bob Simons - Simmons Broadcasting, Langdon……. Northeast Region Chair
Jake Bechtold - Radio FM Media, Fargo……. Southeast Region Chair
Todd Mitchell – iHeartMedia, Bismarck-Mandan……. Southwest Region Chair
Garrett Kunz – AT&T…….....Mobile Communications Representative
Tom Heier- Midcontinent Communications……. Cable Representative
John Paul Martin – NOAA National Weather Service, Bismarck
Greg Gust – NOAA National Weather Service, Grand Forks
Eric Upton – ND Department of Emergency Services, Bismarck

Note: Changes and/or additions to this membership list should be forwarded to:

N.D. Division of Emergency Management
PO Box 5511
Bismarck, ND 58506-5511

APPENDIX 17: ACRONYMS

CAP - Common Alerting Protocol
CDW - Civil Danger Warning
CEM - Civil Emergency Message
COG - Collaborative Operating Group
EAS - Emergency Alert System
EMA - Emergency Management Agency
EMI - Emergency Management Institute
EOC - Emergency Operations Center
EOP - Emergency Operations Plan
FEMA - Federal Emergency Management Agency
FIPS - Federal Information Processing Standard
ICS - Incident Command System
IPAWS - Integrated Public Alert and Warning System
LAE - Local Area Emergency
LEW - Law Enforcement Warning
MOA - Memorandum of Agreement
NAWAS - National Warning System
NCMEC - National Center for Missing and Exploited Children
NOAA - National Oceanic and Atmospheric Administration
NWEM - Non Weather Emergency Message
NWR - National Weather Radio
NWS - National Weather Services
OEM - Office of Emergency Management
OPEN - Open Platform for Emergency Networks
P2P - Peer-to-Peer
PKI - Public Key Infrastructure
PMO - Program Management Office
POC - Point of Contact
RMT - Required Monthly Test
RWT - Required Weekly Test
TEPW - Training and Exercise Planning Workshop
WEA - Wireless Emergency Alert

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APPENDIX 18: GLOSSARY

Agency Representative – A person assigned by a primary, assisting, or cooperating federal, state, local, tribal, or territorial government agency or private entity that has been delegated authority to make decisions affecting that agency's or organization's participation in incident management activities following appropriate consultation with the leadership of that agency.

Agency – A division of government with a specific function offering a particular kind of assistance. In the Incident Command System (ICS), agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance).

Alerting Authority – Designated jurisdictional individual who is authorized to write and distribute an alert or warning.

Collaborative Operating Group – IPAWS is structured around Collaborative Operating Groups (COG). A COG is a virtual organization of alerting authorities that holds membership in IPAWS-OPEN and manages system access within that organization. When the application process is complete, FEMA will assign each agency a COG Identification number and Digital Certificate.

Disaster – The occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property, or significant adverse impact on the environment, resulting from any natural or technological hazards, or a terrorist act, including but not limited to fire, flood, earthquake, wind, storm, hazardous substance incident, water contamination requiring emergency action to avert danger or damage, epidemic, air contamination, blight, drought, infestation, explosion, civil disturbance, or hostile military or paramilitary action. For the purpose of state or federal disaster declarations, the term disaster generally falls into one of two categories relative to the level of severity and impact on local and state resources. They are: Major - likely to require immediate state assistance supplemented by limited federal resources, if necessary, to supplement intra-state efforts and resources; and Catastrophic - will require immediate and massive state and federal assistance in both the response and recovery aspects. Local government's adaptation of the definition of a disaster denotes an event which threatens or actually does inflict damage to people or property, and is, or is likely to be, beyond the capability of the services, personnel, equipment, and facilities of a local jurisdiction, thereby requiring the augmentation of resources through state-directed assistance.

Emergency – A suddenly occurring and often unforeseen situation which is determined by the Governor to require state response or mitigation actions to immediately supplement local government in protecting lives and property, to provide for public health and safety, or to avert or lessen the threat of a disaster. Local government's adaptation of this definition connotes an event that threatens or actually does inflict damage to people or property, exceeds the daily routine type of response, and still can be dealt with using local internal and mutual aid resources.

Integrated Public Alert and Warning System (IPAWS) – In the event of a national emergency, the President will be able to use IPAWS to send a message to the American people quickly and simultaneously through multiple communications pathways. IPAWS is available to United States government officials as a way to alert the public via the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), NOAA Weather Radio and other National Weather Service dissemination channels, the internet, existing unique warning systems, and emerging distribution technologies.

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

Memorandum of Agreement (MOA) – An agreement document between two or more agencies establishing reciprocal assistance to be provided upon request (and if available from the supplying agency) and laying out the guidelines under which this assistance will operate.

Mutual-Aid Agreement – Written agreement between agencies and/or jurisdictions that they will assist one another upon request, by furnishing personnel, equipment, and/or expertise in a specified manner.

National Warning System (NAWAS) – A communication system of the federal government which provides warning to the population of an attack or other national emergency. Reception is at local and state warning points.

National Weather Services (NWS) – Federal government agencies charged with weather-related reporting and projections.

Shelter in place – Take immediate shelter where you are—at home, work, school, or wherever you can take protective cover. It may also mean "seal the room"; in other words, take steps to prevent outside air from coming in.

State – When capitalized, refers to any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any possession of the United States. See Section 2 (14), Homeland Security Act of 2002, Pub. L. 107-296, 116 Stat. 2135 (2002).

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