



StormReady Population-Based Guidelines*



		Population			
		< 2,500	2,500 - 14,999	15,000 - 40,000	> 40,000
Command	Guideline 1.1: Communication/Dispatch Center and Emergency Operation Center				
	Operate Communication/Dispatch Center that serves as the 24-hour Warning Point (WP)	✓**	✓**	✓	✓
	Operate Emergency Operations Center (EOC)		✓**	✓	✓
Communication and Information Management	Guideline 2.1: NWS Warning and Information Reception				
	Maintain the required number of ways for the WP and EOC to receive NWS warnings and information	3	4	4	4
	Guideline 2.2: Warning Dissemination				
	Maintain the required number of ways for the WP and EOC to disseminate warnings	1	2	3	4
	Operate Public Alert™ certified NOAA Weather Radio receivers in key public facilities	✓	✓	✓	✓
	Guideline 2.3: Hazardous Weather and Flood Monitoring				
	Maintain the required number of ways to monitor for hazardous weather and flood conditions	1	2	3	4
	Guideline 2.4: Communication				
	Ensure routine communication between NWS and the emergency management agency/organization	✓	✓	✓	✓
	Able to communicate within and across jurisdictions through resilient and redundant methods	✓	✓	✓	✓
Preparedness	Guideline 3.1: Planning				
	Address hazardous weather and flooding in formal Emergency Operations Plan (EOP)	✓	✓	✓	✓
	Guideline 3.2: Training and Exercises				
	Conduct an exercise relating to natural hazards every three years	✓	✓	✓	✓
	Train spotters and dispatchers biennially	✓	✓	✓	✓
Host/co-host biennial NWS spotter training				✓	
Guideline 3.3: Community Preparedness					
Conduct a required number of annual weather safety activities	1	2	3	4	

* StormReady guidelines may be satisfied by incorporating data/services provided by America's Weather and Climate Industry.

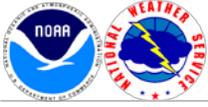
** For cities or towns with less than 15,000 people, a 24-hour WP and EOC capability are required; however, another jurisdiction within the county may provide that resource.



Guideline 1.1: Communication/Dispatch Center

To receive recognition under the StormReady Program, an applying jurisdiction will need a Communication/Dispatch Center that serves as the 24-hour Warning Point (WP)†, has the capability to receive NWS alerts and warnings, and has the authority and ability to activate the public warning system in its area of responsibility. Typically, this WP is a law enforcement or fire department dispatching point, or a 911 call center. The Communication/Dispatch Center should have training on NWS decision support, the monitoring of hazardous weather and flood incidents, and the protocols for communicating reports to support the NWS warning decision-making process. This training can be accomplished through a variety of delivery methods (e.g., FEMA’s Emergency Management Institute courses, COMET® MetEd courses, state or locally developed training, etc.). StormReady communities are expected to share hazardous weather and flood damage reports with their local NWS WFO. Using NWSChat or a similar communication tool is ideal for this type of coordination. At a minimum, these reports should include the type, location, and time of significant weather and flood events.

†Note: For jurisdictions without a local Communication/Dispatch Center that can serve as a 24-hour WP, another jurisdiction (e.g., county, adjacent community, state, etc.) may act in that capacity for the jurisdiction. This scenario is most likely in smaller jurisdictions (e.g., in Alaska and the U.S. territories) with less than 5,000 residents. This type of working arrangement should be addressed in both jurisdictions’ plans and operational protocols. Such an arrangement might also require a standing mutual aid agreement through a memorandum of understanding (MoU) or some other formal means. The smaller jurisdiction should designate responsible officials who are able to receive warnings 24/7 from their surrogate 24-hour WP. NWS recommends the smaller jurisdiction designate several primary and backup points of contact as the responsible officials. These responsible officials should have the authority and ability to activate the public warning system in their jurisdiction in a timely manner. It is also recommended that the responsible officials in the smaller jurisdiction have a 24/7 redundant means to receive alerts, such as NOAA Weather Radio All Hazards, InteractiveNWS, and related services provided by AWCI.



Guideline 1.2: EOC

To receive recognition under the StormReady Program, an applying jurisdiction with a population of 2,500 or more will need to establish an EOC capability. The EOC will need to be staffed during hazardous weather and flood incidents. When activated, the EOC will likely assume the Communication/Dispatch Center's warning coordination and dissemination functions. The following summarizes roles of an EOC for hazardous weather and flood incidents:

- Activated according to the EOP guidelines, which may include NWS decision support information
- May assume the Communication/Dispatch Center's warning coordination and dissemination functions
- Staffed with trained and credentialed emergency management personnel
- Has alert and warning reception capability (Guideline 2.1)
- Has ability and authority to activate the public warning system in its area of responsibility
- Maintains ability to communicate within and across jurisdictions (e.g., with other EOCs including those maintained by private organizations, Incident Command Posts, etc.) through resilient and redundant methods. Should have communication capabilities equal to or better than the Communication/Dispatch Center
- Maintains established communication links with NWS (e.g., NWSChat, phone, etc.) to relay real-time reports to support the warning decision-making process.

The physical size, staffing, and equipping of an EOC will depend on the size of the jurisdiction, resources available and anticipated incident management workload. EOCs may be organized and staffed in a variety of ways. The efficient functioning of EOCs most frequently depends on the existence of mutual aid agreements and joint communications protocols among participating agencies.

For jurisdictions without an EOC capability, another jurisdiction may act in that capacity for them. This type of working arrangement should be addressed in both jurisdictions' plans and operational protocols. Such an arrangement might also require a formal standing mutual aid agreement through a Memorandum of Understanding. The surrogate EOC should be able to perform all of the above listed functions on the behalf of the jurisdictions without an EOC capability.

Note: It is only necessary for facilities that are designated as "StormReady Communities" (reference definition in section 1.1) to have WP and EOC capabilities during business operations and/or when the facility is open to the public.



Guideline 2.1: NWS Warning and Information Reception

To receive recognition under the StormReady Program, an applying jurisdiction's Communication/Dispatch Center and EOC each need multiple ways to receive NWS warnings. A combination of the following can be used by the Communication/Dispatch Center and EOC to fulfill this guideline:



- Public Alert™ certified NOAA Weather Radio receiver: Required for recognition only if within reliable reception range of a NWR transmitter
- National Warning System (NAWAS) drop: FEMA-controlled, 24-hour, continuous-private-line telephone system used to convey warnings to federal, state and local governments, as well as the military and civilian population
- NWSChat: An instant messaging program available via the Internet used by NWS operational personnel to share critical warning decision expertise and other significant weather information
- Emergency Management Weather Information Network (EMWIN) receiver: Device that receives satellite feed and/or VHF radio transmission of NWS products
- Statewide law enforcement telecommunications: Automatic relay of NWS products on law enforcement systems
- Amateur Radio transceiver: Potential communications directly to NWS office
- Television: Access to local network or cable TV
- Alerts received through America's Weather and Climate Industry: Typically received from a provider via email, a texting service or app to a smartphone, tablet, or computer
- Wireless Emergency Alerts (WEA): A service that allows public safety authorities to use FEMA's Integrated Public Alert and Warning System (IPAWS) Open Platform for Emergency Networks (IPAWS-OPEN) to send geographically targeted, text-like wireless emergency alerts to the public
- Local Radio: Emergency Alert System, LP1/LP2
- Internet monitoring capability, including social media such as Facebook and Twitter
- NOAA Weather Wire drop: Satellite downlink data feed from NWS.
- Other Communications channel: For example, active participation in a state-run warning network, two-way, local emergency responder radio network, etc.



Guideline 2.2: Warning Dissemination

A jurisdiction's Dispatch/ Communication Center and EOC each need authority and ability to activate the public warning system. A combination of the following can fulfill this guideline:

- Cable and/or broadcast television audio/video EAS overrides
- Local flood warning systems with no single point of failure
- Plan for siren/megaphone notification on emergency vehicles
- Outdoor warning sirens
- Other local alert broadcast system
- Local pager/texting system
- WEA capability throughout the jurisdiction
- Social media account and plan for usage
- Amateur Radio Operator network (Ham Radio)
- Telephone mass notification system
- Telephone tree to critical facilities
- Coordinated jurisdiction-wide radio network
- Service provided by AWCI
- Other, please explain
- For Counties, a countywide communication network that ensures the flow of information between all cities and towns within its borders. This includes acting as the surrogate WP and/or EOC for jurisdictions without those capabilities.

In addition to the above, when in reliable range of a transmitter, Public Alert™ certified NOAA Weather Radio receivers are required in key public facilities:

Required Locations:

- Communication/Dispatch Center serving as the 24-hour WP
- EOC
- City Hall
- Public School Superintendent office

Recommended Locations:

- Courthouses
- Public libraries
- Hospitals
- All schools
- Fairgrounds, parks and recreation areas*
- Public utilities*
- Large-event venues, e.g., arenas, stadiums, etc.*
- Transportation departments*
- Nursing homes/Assisted living facilities*
- Harbor Masters' Offices



Guideline 2.3: Hazardous Weather and Flood Monitoring

A jurisdiction's Dispatch/ Communication Center and EOC each need the ability to monitor for hazardous weather and flood conditions. Staff should have a basic understanding of weather and flood data, and information systems. Examples include Doppler weather radar, hydrographs, roadway condition sensors, etc. Understanding how to use hazardous weather and flood monitoring tools enhances the situation awareness of the Communication/Dispatch Center and EOC. It also strengthens the coordination with the NWS, other jurisdictions, the news media and the public. A combination of the following fulfills this guideline:

- NWSChat
- Internet
- Video camera system
- Television/radio
- Two-way radio
- EMWIN
- Hazardous weather and flood monitoring systems provided by AWCI
- Local systems for weather monitoring, e.g., roadway sensors, levee/dam sensors
- Locally owned and operated weather radar
- Lightning detection network

Guideline 2.4: Communication

To facilitate close working relationships, the jurisdiction's emergency management program leader should routinely communicate with his/her local NWS WFO. NWS officials should also routinely communicate with the emergency management officials in their CWFA. Typically this will occur during incident operations between the Communication/Dispatch Center and the local NWS WFO. This communication also might occur through joint preparedness activities, conferences or other events. Annual meetings are encouraged, in-person or virtually. If a jurisdiction chooses to use services provided by AWCI, the WFO will interact/coordinate with the jurisdiction's service provider in the same way it would interact with the applicant or StormReady community once recognized.

In addition to the above examples, jurisdictions should have an interoperable communications network that ensures the ability to communicate within and across jurisdictions through resilient and redundant methods. Resiliency is the ability of communications systems to withstand and continue to perform after damage or loss of infrastructure. Redundancy can be the duplication of services or the ability to communicate through diverse, alternative methods when standard capabilities suffer damage.

During an incident within a jurisdiction, this integrated approach links the operational and support units of the various organizations to maintain communications connectivity and situation awareness. When a single incident covers a large geographical area, multiple local emergency management and incident response agencies may be required. This may include non-governmental organizations and private-sector organizations. Effective cross-jurisdictional coordination using processes and systems is critical in this situation.



Guideline 3.1: Planning

An applying jurisdiction should address hazardous weather and flooding in its formal EOP. Ideally, hazardous weather and flooding is also addressed in the community's Local Hazards Mitigation Plan. The EOP should:

- Identify hazards and provide a risk assessment
- Detail Communication/Dispatch Center procedures relating to natural hazards
- Specify EOC activation criteria and deactivation procedures
- Identify flood prone areas, set procedures to prevent citizens from entering those areas, and set evacuation protocols and procedures
- Establish SKYWARN weather spotter activation criteria and reporting procedures
- Specify criteria and procedures for activation of public warning systems
- Provide contact information for all jurisdictional agencies and response partners
- Maintain the ability to assess significant hazardous weather and flood incidents through an After Action Review and evolve emergency response planning accordingly

Guideline 3.2: Training and Exercises

An applying jurisdiction should conduct an exercise (tabletop, functional, or full-scale) relating to natural hazards at least every three years. Participation in a multi-jurisdiction exercise (e.g., state, regional, federal, etc.) may fulfill this requirement. It is not necessary for your local NWS office to participate in the exercise but NWS participation is encouraged when feasible.

Exercises should test and evaluate functions contained in the EOP.

The following exercise types may be conducted to fulfill this guideline:

Conduct training for Communication/Dispatch Center and EOC staff (e.g., dispatchers) at least once every two years. The Communication Center should receive training on the following:

- Understanding NWS decision support services
- Monitoring hazardous weather and flood incidents
- Using protocols for communicating hazardous weather and flood incident impacts and damage to inform the NWS' warning decision making.

Any training tool (e.g., web module, Webinar, presentation, instruction manual) can fulfill this guideline though local NWS WFO participation in the development and implementation of the training is desirable. Typically this training can be accomplished by attending a class for SKYWARN weather spotters conducted by the local NWS WFO. StormReady communities are expected to share hazardous weather and flood reports with their local NWS WFO. Using NWSChat or a similar communication tool is ideal for this type of coordination. At a minimum, these reports should include the type, location, and time of significant weather and flood events. An applying jurisdiction also needs to conduct training for SKYWARN weather spotters at least once every two years. Typically this guideline is handled by the local NWS WFO through in-person training classes open to the public and with support from the emergency manager. All jurisdictions larger than 40,000 people are encouraged to host/co-host a spotter training session at least once every two years.



Guideline 3.3: Community Preparedness

A jurisdiction needs to conduct a number of hazardous weather and/or flood safety activities each year. Public education is vital in preparing citizens to respond properly to hazardous weather. An educated public is more likely to take steps to plan for hazardous weather, recognize potentially threatening weather situations, receive warnings, and respond appropriately in those situations. A combination of the following preparedness activities fulfills this guideline:

- Conduct safety talks/presentations for schools, hospitals, nursing homes, and industries regarding the identified weather hazards for the area. These talks may be a part of multi-hazard presentations affecting local communities/regions, e.g., floods, wildfires, tsunamis, tornadoes, hurricanes/typhoons, blizzards
- Offer weather-related safety awareness campaigns that include publicity for public warning systems
- Assist schools, hospitals, businesses, industries, etc., with the development of risk assessments, mitigation measures and emergency planning, e.g., help determine effective sheltering and evacuation procedures
- Establish and maintain a community program that includes hazardous weather and flooding in its training, e.g., Citizens Corps, Community Emergency Response Teams
- Participate in the Emergency Management Accreditation Program (EMAP).
- Participate in a state, end-to-end communications test of the hazardous weather and flooding warning system. This includes activation of the EAS within your jurisdiction using a TOR or FFW real event code
- Conduct full-scale exercise for hazardous weather with community involvement
- Implement/maintain a program to help the special needs populations in your jurisdiction prepare for and respond to hazardous weather, e.g., neighbor helping neighbor program
- Post hazardous weather and flood safety information, including information on NOAA Weather Radio and WEA and other local public warning systems, on community websites
- Issue Public Service Announcements (PSA) on hazardous weather and flood safety. PSAs could be sent through radio, TV, social media, etc.
- Post hazardous weather and flood safety information on signs in your jurisdiction, e.g., billboard, highway, large outdoor video screens, movie theater ads, etc.
- Conduct mass mailings of hazardous weather safety information
- Conduct workshops with local businesses to help them develop their own hazardous weather and flood mitigation strategies, emergency operations, and recovery plans.
- Conduct presentations or workshops on hazardous weather and flooding with faith-based organizations, community, and civic groups, e.g., Rotary, Kiwanis, Moose, Scout Troops
- Provide hazardous weather and/or flood safety information through the local tourist industry, e.g., hotels, motels, camp grounds, restaurants, community visitor centers, recreational services, vehicle rental businesses, museums
- Incorporate hazardous weather information into booths at community events, county fairs, trade shows, etc.

Full details available at: www.weather.gov/stormready