

StormReady Organization and Operations Manual

National Weather Service
1325 East West Highway
Silver Spring, MD 20910

StormReady Organization and Operations Manual

<u>Table of Contents</u>	<u>Page</u>
1.0 StormReady Overview	1
2.0 StormReady Advisory Board Organization	2
2.1 National StormReady Advisory Board	2
2.2 Regional StormReady Advisory Board	3
2.3 Local StormReady Advisory Board	3
3.0 StormReady Application Process	4
3.1 Application Submission	4
3.2 StormReady Verification Visit	5
3.3 StormReady Board Review	5
3.4 The Recognition Process	6
3.5 Recognition Ceremony	6
4.0 Insurance Services Organization	6
5.0 Recognition Monitoring	7
6.0 Re-Recognition	7
Appendices:	
A StormReady Population-Based Guidelines	A-1
B StormReady Application Form	B-1
C StormReady Site Visit Form	C-1
D StormReady Ceremony Agenda Example	D-1

Section 1.0 StormReady Overview

Many laws and regulations have been created to help local emergency managers deal with hazardous material spills, search and rescue operations, medical crises, etc., but there are relatively few uniformly-recognized guidelines dealing with the specifics of hazardous weather response operations. Recognizing this need, the National Weather Service (NWS), has designed a program to help cities, counties, and towns implement procedures to reduce the potential for disastrous, weather-related, consequences. By participating in this program, called “StormReady”, local agencies can earn recognition for their jurisdiction by meeting guidelines established by the NWS in partnership with federal, state, and local emergency management professionals. The StormReady program is intended to:

- , Improve the timeliness and effectiveness of hazardous weather warnings for the public.
- , Provide detailed and clear recommendations by which local emergency managers may establish/improve effective hazardous weather operations.
- , Help local emergency managers justify costs and purchases related to supporting their hazardous weather-related program.
- , Reward local hazardous-weather mitigation programs that have achieved a desired performance level.
- , Provide a means of acquiring additional Community Rating System points assigned by the Insurance Services Organization (ISO).
- , Provide an “image incentive” to counties, cities, and towns that can identify themselves as being “StormReady”
- , Encourage the enhancement of hazardous weather preparedness programs in jurisdictions surrounding “StormReady” Communities and Counties.

StormReady is a voluntary program, and is being offered as a means of providing guidance and incentive to officials interested in improving their respective hazardous weather operations. **Implied or explicit references to “requirements” are made with regard to the voluntary participants in the StormReady program and should not be construed as being state or federal mandates.**

Section 2.0

StormReady Advisory Board Organization

Implementation and oversight of the StormReady program is completed through the formation of StormReady Advisory Boards. Advisory boards shall be set up on a national, regional and local basis.

Section 2.1

National StormReady Advisory Board

The National StormReady Advisory Board is responsible for general oversight of the StormReady program. The primary mission of the national board is to maintain a “minimum” set of recognition guidelines that is consistent across the country with regard to technology, while at the same time allowing for local flexibility in terms of planning and preparedness activities.

Existing and proposed guidelines are reviewed at the National StormReady Advisory Board’s annual meeting, with updated guidelines formally published by the board on or before October 1st of each federal fiscal year.

The National StormReady Advisory Board is comprised of:

NWS Warning Coordination Meteorologist (WCM) Program Leader (NWSH)

NWS Eastern Region WCM Program Leader

NWS Southern Region WCM Program Leader

NWS Central Region WCM Program Leader

NWS Western Region WCM Program Leader

NWS Alaska Region WCM Program Leader

NWS Pacific Region WCM Program Leader

President (or designee) of the National Emergency Management Association (NEMA)

President (or designee) of the International Association of Emergency Managers (IAEM)

Section 2.2

Regional StormReady Advisory Board

Each of the NWS's six regional offices shall establish Regional StormReady Advisory Board. Team membership shall be determined by the Regional Director.

Regional StormReady Advisory Boards shall monitor the activities of local boards and ensure the spirit of the national guidelines are maintained. Regional boards also collect and review proposed guideline change recommendations received from the Local StormReady Advisory Boards. Recommendations for change to the national guidelines shall be forwarded to the National StormReady Advisory Board for consideration.

Section 2.3

Local StormReady Advisory Board

The Local StormReady Advisory Board has great authority to enhance StormReady to fit local and state situations. Local StormReady Advisory Boards may be set up either on a WFO or Statewide basis. Each local board shall consist of at least:

- 1 - NWS office Meteorologist in Charge.
- 1 - NWS office Warning Coordination Meteorologist.
- 1 - State emergency management agency director or designee. *
- 1 - Local emergency management association president or designee.*

* One per state if local board is WFO based with multi-state responsibility.

The Local StormReady Advisory Board is responsible for all steps leading to the recognition of the StormReady community or county. This includes developing by-laws for the board's activities, localization of the national guidelines, establishing procedures for verification visits, and implementing procedures for application review.

Section 3.0

StormReady Application Process

Application for StormReady recognition is a formal process requiring a written application, verification visit(s), local board action, and recognition.

Section 3.1

Application Submission

Any county or community desiring to be considered for StormReady recognition should prepare a written application following the categories outlined in Appendix B and submit it to the appropriate NWS office.

Some applicants will have jurisdiction over both a community and the unincorporated areas of the surrounding county. In these cases, a single application is sufficient, with the combined populations used as a basis for determining the appropriate guideline categories.

While much of the application is a basic accounting of technology, a brief narrative describing aspects of preparedness and planning activities is necessary and will aid in assessing such things as the hazardous weather plan, exercises and public safety programs.

The application will be duplicated by the local StormReady Advisory Board Chairperson and provided to each board member. The StormReady Chairperson shall assign a team to visit the applicant and formally discuss the application.

Section 3.2

StormReady Verification Visit

A verification team of no less than 2 members shall be assembled by the StormReady Chairperson to visit an applicant. The verification team should be composed of, at a minimum, one NWS person and one emergency manager. StormReady verification team members should be StormReady Advisory Board members, or other individuals deemed qualified to make an assessment by the Local StormReady Advisory Board.

During the verification visit, a Site Visit Summary (Appendix C) shall be completed separately and signed by each member of the verification team. During the site visit, a review of the applicant's hazardous weather plan will occur. This review may require the applicant to explain procedures to ensure that the content meets StormReady Guidelines. A full copy of the applicant's Hazardous Weather Plan does not need to be submitted to the StormReady Advisory Board; however, the verification team may request a copy for further offsite review.

Upon completing a site visit, the verification team shall forward to the Local Advisory Board their Site Visit Summaries, along with any additional comments or documentation deemed pertinent.

Section 3.3

StormReady Board Review

The Local StormReady Advisory Board shall review a jurisdiction's application and associated site visit summaries at the local boards next regularly scheduled meeting after the site visit. The local StormReady Advisory Board may approve an application for recognition after this first review.

If the recognition is not approved, the local board shall provide written guidance on improvements needed to achieve recognition. Upon written response from the applying jurisdiction, a subsequent StormReady verification visit and local board review shall be scheduled. If a community disputes a decision made by the local advisory board, the dispute shall be forwarded to the Regional StormReady Advisory Board for resolution.

Section 3.4

The Recognition Process

When in the opinion of the StormReady Advisory Board an applicant has met the guidelines for recognition, the local board has the authority to grant recognition. Notification of a recognition shall be given to the National and Regional Advisory Boards.

The successful applicant will receive a formal notification letter from the appropriate NWS Meteorologist in Charge, two StormReady signs suitable for display along roadways, authorization to use the StormReady logo, instructions for acquiring additional roadway signs, and information concerning the notification of the Insurance Services Organization (ISO) for possible adjustment to insurance rates (Section 3.8).

Recognition shall be for a period of two years from the date of the formal announcement.

Section 3.5

Recognition Ceremony

Details of the recognition announcement and ceremony shall be coordinated between the applicant and the NWS office which has responsibility for the community or county.

A typical ceremony would require a formal media announcement and should be a combination of the unveiling of the StormReady roadway signs and a subsequent press conference. See Appendix D for a sample ceremony program.

Section 4.0

Insurance Services Organization (ISO)

Recognized jurisdictions participating in the National Flood Insurance Program can receive Community Rating Points towards lowering flood insurance rates. StormReady communities / counties should forward a copy of their recognition letter to their ISO representative for details.

Section 5.0

Recognition Monitoring

While a formal plan to monitor a recognized jurisdiction is not presently deemed necessary, if a formal concern is brought to the StormReady Advisory Board, the local board shall review the concern and holds the option to suspend the recognition for 60 days while a review is conducted.

If the local board review indicates the community or county no longer meets StormReady guidelines, it will request the road signs be removed. A written notification shall be made to the ISO informing them of the action.

Section 6.0

Re-Recognition

StormReady recognitions are valid for two years from the date of the formal announcement / ceremony. The Local StormReady Advisory Board shall, six months prior to the expiration of the recognition, notify recognized jurisdictions in writing of their need to re-apply. Applicable guidelines shall be those published at the time of the notification.

It is the goal of the Local StormReady Advisory Board to maintain an atmosphere of constant improvement, and strive to keep the evaluation guidelines representative of the advancing technology and techniques.

Appendix A StormReady Population-Based Guidelines

Since the tax base typically dictates the resources applied to public programs, the guidelines for successful participation in the StormReady Program are based on population. Four population categories will be used for developing appropriate recognition guidelines related to weather disaster preparedness. The population-based categories are:

Guidelines	Population			
	< 2,500	2,500 - 14,999	15,000 - 40,000	> 40,000
Guideline 1: Communications				
Established 24 hr Warning Point (WP)	X*	X*	X	X
Established Emergency Operations Center		X*	X	X
Ability to relay real-time storm reports to forecast office	X	X	X	X
Guideline 2: NWS Information Reception				
Number of ways for EOC/WP to receive NWS warning, etc (If in range, one <i>must</i> be NWR)	3	4	4	4
Guideline 3: Hydrometeorological Monitoring				
Number of ways to monitor Hydrometeorological data.	1	2	3	4
Guideline 4: Local Warning Dissemination				
Number of ways for EOC/WP to disseminate warnings	1	2	3	4
NWR - SAME receivers in public facilities	X	X	X	X
Guideline 5: Community Preparedness				
Number of annual weather safety talks	1	2	3	4
Spotters and dispatchers trained biennially	X	X	X	X
Host / co-host annual NWS spotter training				X
Guideline 6: Administrative				
Formal hazardous weather operations plan	X	X	X	X
Biennial visits by emergency manager to NWS office	X	X	X	X
Annual visits by NWS official to community	X	X	X	X

* If the population of a “community” is less than 15,000, they are required to have a 24 hour warning point and EOC only if the county seat is less than 40,000.

Appendix A

StormReady Guidelines

(Continued)

Guideline 1: Communications & Coordination Center

The key to disaster management is effective communication. This is especially true in natural hazard emergencies (e.g. flood, wildfire, tsunami) where rapid changes may permit only short lead-time warnings that require an immediate, educated response.

1. 24-Hour Warning Point. To receive recognition under the StormReady Program, an applying agency will need to have a 24-hour warning point (WP) that can receive NWS information and provide local reports and advice. Typically, this might be a law enforcement or fire department dispatching point. For cities or towns without a local dispatching point, a county agency could act in that capacity for them.

The warning point will need to have:

- < 24 hour operations.
- < Warning reception capability.
- < Warning dissemination capability.
- < Ability and authority to activate local warning system(s).

2. Emergency Operations Center. Agencies serving jurisdictions larger than 2,500 people will need an emergency operations center (EOC). The EOC will need to be staffed during hazardous weather events and, when staffed, would assume the warning point's hazardous weather functions.

The following summarizes the weather-related roles of an EOC:

- < May assume weather-related duties of warning point, when staffed.
- < Activated based on predetermined guidelines related to NWS information and/or weather events.
- < Staffed with emergency management director or designee.
- < Warning reception capability. (See guideline 2)
- < Ability and authority to activate local warning system(s). Must have capabilities equal to or better than the warning point.
- < Ability to communicate with adjacent EOCs/Warning Points.
- < Established communications link with NWS to relay real time weather information to support the warning decision making process.

Appendix A
StormReady Guidelines
(Continued)

Guideline 2: National Weather Service Warning Reception

Warning points and EOCs each need multiple ways to receive NWS warnings. The StormReady Program guidelines for receiving NWS warnings in an EOC/WP require a combination of the following, based on population:

- < NOAA Weather Radio receiver with tone alert. Specific Area Message Encoding is preferred. *Required for recognition only if within range of transmitter.*
- < Emergency Management Weather Information Network (EMWIN) receiver: 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
- < Pagers: From a provider not directly tied to a local system such as EMWIN.
- < Television: Local network or cable TV.
- < Local Radio (Emergency Alert System - LP1/LP2).
- < National Warning System (NAWAS) drop: FEMA-controlled civil defense hotline.
- < NOAA Weather Wire drop: Satellite downlink data feed from NWS
- < Other: For example, active participation in a state-run warning network.

Guideline 3: Hydrometeorological Monitoring

While receipt of warnings is crucial to the success of any EOC or warning point, there should also be a means of monitoring weather information, especially radar data. To obtain StormReady recognition, each EOC/WP (based on population) should have some combination of the following recommended means of gathering ancillary weather information:

- < Access to radar data (via LDAD, internet, local TV, etc.)
- < Instruments to provide a measure of local conditions and/or hydrologic conditions (cannot be the sole means of hydrometeorological monitoring) i.e. wind equipment, river gages etc.
- < Locally owned and operated weather radar.

Appendix A
StormReady Guidelines
(Continued)

Guideline 4: Warning Dissemination

Once NWS warnings are received, or local information suggests an imminent weather threat, the goal of the local emergency officials should be to communicate with as much of the population as possible. Receiving StormReady recognition will be contingent upon having one or more of the following means (based on population) of ensuring timely warning dissemination to citizens:

- < NWR receivers (Tone alert or SAME) in each government-owned building that is accessed by the public.

Required locations

24 hour warning point
Emergency Operations Center
City Hall
School Superintendent office

Recommended locations

Courthouses
Public Libraries
Hospitals
All schools
Fairgrounds
Parks and recreation area
Public utilities
Sports arenas
Dept's of Transportation

- < Cable television audio/video overrides.
- < Local Flood warning systems with no single point of failure.
- < Other locally-controlled methods like a local broadcast system or sirens on emergency vehicles.
- < Outdoor warning sirens.
- < *Counties Only:* A County-wide communications network that ensures the flow of information between all cities and towns within its borders. This would include acting as a warning point for the smaller towns.

Appendix A
StormReady Guidelines
(Continued)

Guideline 5: Community Preparedness

Public education is vital in preparing citizens to respond properly to weather threats. An educated public most likely will take steps to receive weather warnings, recognize potentially threatening weather situations, and act appropriately to those situations. Those seeking recognition in the StormReady Program will need to:

- < Conduct or facilitate safety talks for schools, hospitals, nursing homes and industries (number of talks per year will be based on population). These may be a part of multi-hazard presentations affecting local communities/regions (e.g. flood, wildfire, tsunami)
- < Accomplish weather-related safety campaigns which include publicity for NOAA Weather Radios where coverage exists. These may be a part of multi-hazard presentations affecting local communities/regions (e.g. flood, wildfire, tsunami)
- < EOC/Warning point staff and storm spotters will need to attend NWS storm spotter training sessions at least every other year. All jurisdictions larger than 40,000 people will need to host/co-host a spotter training session every year.

Guideline 6: Administrative

No program can be successful without formal planning and pro-active administration. To be recognized in the StormReady Program:

Approved hazardous weather action plans will need to be in place. These plans will need to address, at a minimum, the following:

- < Warning point procedures relating to natural hazards.
- < EOC activation criteria and procedures if applicable
- < Storm spotter activation criteria and reporting procedures if applicable.
- < Storm spotter roster and training record if applicable.
- < Criteria and procedures for activation of sirens, cable television override, and/or local systems activation in accordance with state Emergency Alert System (EAS) plans.
- < Annual exercises relating to natural hazard.

To facilitate close working relationships, the community/county emergency management program leader will need to visit the supporting NWS office at least every other year. NWS officials will commit to visit accredited counties, cities, and towns annually to tour EOCs/Warning points and meet with key officials.



Community Information			
County/City/Town			Population
Primary Point of Contact		Secondary Point of Contact	
Name		Name	
Title		Title	
Phone		Phone	
Email		Email	
Communications			
Location of 24 Hour Warning Point		Location of Emergency Operations Center	
NWS Information Reception			
Warning Reception Capabilities and Location			
1			
2			
3			
4			
5			
6			
7			
8			
<i>List any additional capabilities on a separate sheet if necessary</i>			
Weather & Water Monitoring			
Weather and Water Data Monitoring Capabilities and Location (EOC or Warning Point)			
1			
2			
3			
4			
5			
<i>List any additional capabilities on a separate sheet if necessary</i>			



Local Warning Dissemination				
Dissemination Means				
1				
2				
3				
4				
5				
<i>List any additional capabilities on a separate sheet if necessary</i>				
Local Government Owned Buildings with Public Access				
	Building	Location	Tone Alert NOAA Weather Radio	Comments
1			<input type="checkbox"/> Yes <input type="checkbox"/> No	
2			<input type="checkbox"/> Yes <input type="checkbox"/> No	
3			<input type="checkbox"/> Yes <input type="checkbox"/> No	
4			<input type="checkbox"/> Yes <input type="checkbox"/> No	
5			<input type="checkbox"/> Yes <input type="checkbox"/> No	
6			<input type="checkbox"/> Yes <input type="checkbox"/> No	
7			<input type="checkbox"/> Yes <input type="checkbox"/> No	
8			<input type="checkbox"/> Yes <input type="checkbox"/> No	
9			<input type="checkbox"/> Yes <input type="checkbox"/> No	
<i>List any additional capabilities on a separate sheet if necessary</i>				
Community Preparedness				
Number of Annual Safety Talks <i>(Indicate Topic, Location, and Presenter)</i>				
1				
2				
3				
4				
5				



<i>List any additional safety talks on a separate sheet if necessary</i>	
Other Community Preparedness Activities <i>(Indicate Activity, Location, and Organizer)</i>	
1	
2	
3	
4	
5	
<i>List any additional safety talks on a separate sheet if necessary</i>	
Administrative Tools/Record keeping	
Formal Hazardous Weather Operations Plan ▶ Procedure for reporting storm damage to the local National Weather Service Forecast Office in real-time ▶ Spotter Activation Criteria ▶ Local Warning System(s) Activation Criteria	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Spotter Roster and Training Record	<input type="checkbox"/> Yes <input type="checkbox"/> No
Last Visit by Emergency Manager to NWS Office	
Last Visit by NWS Officials to Community	
Annual Exercise Topic and Date	
Last NWS Spotter Training for Spotters and Dispatchers	
Last NWS Spotter Training Hosted/Co-Hosted <i>(For populations >40,000)</i>	

List any additional descriptions, narratives, or documentation on a separate sheet if necessary

APPENDIX C

The following six pages are the NWS XXX StormReady Site Visit Summary. This form is used by the site verification team during visits to an applicant.

NWS XXX StormReady Site Visit Summary/Review

Applicant: _____
Contact: _____ Phone: _____
Population: _____
NOAA Weather Radio Coverage: _____

Date(s) of Visit: _____
Site Visit Team: _____

24 Hour Warning Point

24 Hour Warning Point Location: _____

NWS Information Reception

Number Required: _____
Total: _____

NOAA Wx Radio _____
NOAA Wx Wire _____
EMWIN _____
LETS _____
Amateur Radio _____
Pagers _____
Television _____
Radio (LP1/LP2) _____
NAWAS _____
Other: _____

Local Warning Dissemination

Number Required: _____
Total: _____

Outdoor Warning Sirens _____
Cable TV Override _____
Plan for sirens on emergency vehicles _____
Local Alert Broadcast System _____
Local Pager System _____
Telephone Tree to Critical Facilities _____
Coordinate Area-Wide Radio Network _____

Other:: _____

Hydro-Meteorological Monitoring

Not Required: _____

Written plan gives authority to Warning Point Personnel to activate warning system: _____

Notes: _____

NWS XXX StormReady Site Visit Summary/Review

Emergency Operations Center

Emergency Operations Center Location: _____

NWS Information Reception

Number Required: _____
Total: _____

NOAA Wx Radio _____
NOAA Wx Wire _____
EMWIN _____
LETS _____
Amateur Radio _____
Pagers _____
Television _____
Radio (LP1/LP2) _____
NAWAS _____
Other: _____

Local Warning Dissemination

Number Required: _____
Total: _____

Outdoor Warning Sirens _____
Cable TV Override _____
Plan for sirens on emergency vehicles _____
Local Alert Broadcast System _____
Local Pager System _____
Telephone Tree to Critical Facilities _____
Coordinate Area-Wide Radio Network _____

Other:: _____

Hydro-Meteorological Monitoring: _____

Notes: _____

NWS XXX StormReady Site Visit Summary/Review

Community NWR-SAME Program

StormReady recognition requires that Tone Alert capable NOAA Weather Radio Receivers be placed in local government owned buildings that have public access, if NOAA Weather Radio coverage is adequate.

Local Government Owned Buildings With Public Access

Building	Location	NOAA Wx Radio (Yes / No)	Comments

*** Attach Separate Sheet for Additional Space ***

Has the community developed a program to subsidize the purchase of Specific Area Message Capable NOAA Weather Radios for its citizens? (Yes / No)

If yes, provide

details: _____

NWS XXX StormReady Site Visit Summary/Review

Preparedness / Administration

Preparedness

Public education is vital in preparing citizens to respond properly. StormReady recognition requires a population-based number of community safety talks during a year.

Preparedness Talks

Number Required: _____

Date(s)	Location	Topics Covered	Comments

*** Attach Separate Sheet for Additional Space ***

Administration

Formal planning and pro-active administration is a part of the StormReady Recognition.

Written Hazardous Weather Plan in place? (Yes / No)

If yes, does it cover the following: Warning Point Procedures _____

EOC Activation _____

Spotter Activation _____

Biannual Spotter Training _____

Spotter Training Record _____

Criteria for local warning _____

system activation _____

Annual Weather Related exercise / drill: _____

Spotters / Dispatchers trained biannually: _____

Host / Co-Host Annual Spotter Training: _____

(Required if population > 40,000.)

NWS XXX StormReady Site Visit Summary/Review

Preparedness / Administration
(Continued)

Administration (Continued)

Biannual visit by emergency manager to National Weather Service Office:

Date(s)

Annual visit by National Weather Service Official to
community: _____

Dates(s)

Use the space below for additional notes / comments.

Site Verification Team Member Date