Department of Commerce · National Oceanic & Atmospheric Administration · National Weather Service

NATIONAL WEATHER SERVICE INSTRUCTION 10-704
August 15, 2014

Operations and Services

Tsunami Warning Services NWSPD 10-7

THE TSUNAMIREADY® RECOGNITION PROGRAM

NOTICE: This publication is available at: http://www.nws.noaa.gov/directives/.

OPR: W/OS2 (M. Angove) **Certified by:** OS (C. Strager)
Type of Issuance: Initial

This is a new Directive to make the TsunamiReady® Recognition Program stand alone. Its contents were extracted from the StormReady and TsunamiReady® Recognition Programs, NWSI 10-1802, dated October 6, 2004.

/Signed/ 08/01/2014

Christopher S. Strager Date
Acting Director, Office of Climate,
Water, and Weather Services

The TsunamiReady® Recognition Program

Table of Contents: Page

1 The TsunamiReady® Program Objective 3
- 1.1 TsunamiReady® Program Definitions 4
- 1.2 TsunamiReady® Recognition Guidelines 7
- 1.3 America's Weather and Climate Industry 8

2 Authorities and Responsibilities 8
- 2.1 Weather Forecast Offices 8
- 2.2 Tsunami Warning Centers 9
- 2.3 Regional Headquarters 10
- 2.4 NWS Headquarters - Office of Climate, Water, and Weather Services 10
  - 2.4.1 OCWWS Tsunami Program 10
- 2.5 International Tsunami Information Center 11
- 2.6 TsunamiReady® Applicants 12
- 2.7 National Tsunami Hazard Mitigation Program 13
  - 2.7.1 NTHMP Mitigation and Education Subcommittee 13
- 2.8 State/Territorial Tsunami Steering Committees 13
  - 2.8.1 Local, State, Territorial and Regional TsunamiReady® Boards 14

3 TsunamiReady® Application Process 14
- 3.1 Application Submission 15
- 3.2 Application Review 15
  - 3.2.1 Verification of Application Information 16

4 TsunamiReady® Recognition Process 17
- 4.1 TsunamiReady® Recognition Ceremony 17
- 4.2 TsunamiReady® Recognition Monitoring 18
- 4.3 Renewal of TsunamiReady® Recognition 18

5 TsunamiReady® Supporter 19
- 5.1 TsunamiReady® Supporter Applications, Recognitions and Renewals 19

6 TsunamiReady® Incentives 20
- 6.1 National Flood Insurance Program 21
- 6.2 TsunamiReady® Hero Award 23
  - 6.2.1 TsunamiReady® Hero Award Protocol 23
- 6.3 TsunamiReady® Champion Award 24
  - 6.3.1 TsunamiReady® Champion Award Protocol 24

APPENDIX A - TsunamiReady® Recognition Guidelines A1
APPENDIX B - TsunamiReady® Recognition and Evacuation Route Sign Examples B1

1 The TsunamiReady® Program Objective

Tsunami tragedies over the past decade have reminded the world of the socioeconomic impacts this hazard can inflict. Major tsunami events include: the Indian Ocean in December 2004, Samoa in September 2009, Chile in February 2010 and the Japan disaster in March 2011. Similar tsunami hazards exist for many U.S. coastlines. It is not a question of "if" a tsunami will occur in the United States, but "when." Understanding the risk, exercising an effective response plan, and educating residents and tourists will be coastal America's best chance for minimizing the impacts of our next major tsunami.

TsunamiReady® (www.tsunamiready.noaa.gov) is a voluntary program that promotes tsunami hazard preparedness as an active collaboration among federal, state/territorial and local emergency management agencies, community leaders, the public, and the NOAA National Weather Service (NWS) tsunami warning system. This collaboration supports more effective and consistent tsunami awareness and mitigation efforts among communities at risk. The main goal of TsunamiReady® is to improve public safety during tsunami emergencies so that when a tsunami warning is issued, the public receives the warning, knows what to do about it and takes appropriate action. It can also mean that the public knows how to recognize the natural warning signs of a tsunami, such as a long duration earthquake, and understands the importance of moving to high ground immediately.

TsunamiReady® is administered by the NWS with collaboration, coordination, and feedback from the United States Geological Survey (USGS), the Federal Emergency Management Agency (FEMA), and the 28 U.S. coastal states, territories and commonwealths represented in the National Tsunami Hazard Mitigation Program (NTHMP). Since the program's inception in 2000, over 160 jurisdictions (counties, communities, universities, Indian nations and military installations) have been recognized as TsunamiReady®. An effective TsunamiReady® program is essential for NWS to fulfill its mission of protecting life and property, and enhancing our Nation's economy.

By participating in TsunamiReady®, emergency managers can earn recognition for their jurisdiction by meeting the NWS guidelines. The TsunamiReady® program is intended to:

- Increase public safety through improved timeliness, dissemination and more effective communication of tsunami warnings.
- Improve public response to tsunami warnings.
- Provide detailed and clear recommendations emergency managers may use to establish or improve tsunami planning, operations, and public response.
- Empower Americans to make better decisions before and during tsunamis through community preparedness.

TsunamiReady® jurisdictions have made a strong commitment to implement the infrastructure and systems needed to save lives and protect property when tsunamis strike.

NOTE: Implied or explicit references to "guidelines" or "requirements" are made only with regard to the voluntary participants in the TsunamiReady® program and should not be construed as being state, tribal or federal mandates.

1.1 TsunamiReady® Program Definitions

TsunamiReady® Community: An Indian tribal government*, local government† entity or facility‡ that has the authority and ability to adopt the TsunamiReady® recognition guidelines within its jurisdiction.

> ***The term "Indian tribal government" means** the governing body of any Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe under the Federally Recognized Indian Tribe List Act of 1994 *[25 U.S.C. 479a et seq. January 3, 2012]*.
>
> **†The term "local government" means –**
>
> a) A county, parish, borough, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government.
>
> b) An Indian tribe or authorized tribal organization, or Alaska Native village or organization that is not an Indian tribal government.
>
> c) A rural community, unincorporated town or village, or other public entity, for which an application for assistance is made by a State or political subdivision of a State.
> *[From Stafford Act, 42 U.S.C. 5121 et seq.; section 5122, as amended by Public Law 113-2, January 29, 2013]*
>
> **‡The term "facility" for a TsunamiReady® community includes but is not limited to:** universities, colleges, military installations, state/national parks, power plants/utilities, major transportation centers (i.e., airports, harbors, ports, railroad stations and other large transit complexes), theme parks/entertainment complexes, corporate business complexes, factories and large event venues (i.e., stadiums, arenas, race tracks, convention centers and other venues that temporarily host large gatherings of people).

TsunamiReady® Supporter: An organization, business, facility, or local government entity that has authority to adopt the TsunamiReady® recognition guidelines within its purview, actively promotes the principals of TsunamiReady®, but does not have the ability to meet all of the recognition guidelines.

Some examples of potential TsunamiReady® Supporters might include, but are not limited to: businesses, churches, hospitals, shopping centers, malls, utilities, museums, aquariums, villages, small communities, and individual schools, and broadcasters/broadcast stations.

TsunamiReady® Supporter participation and eligibility is based on the determinations (e.g., by-laws, charters, agreements, implementation plans) of the Local or State TsunamiReady® Boards. An entity applying for TsunamiReady® Supporter status should also receive endorsement from local emergency management within the applying entity's county or parish jurisdiction.

TsunamiReady® Sites: A generic term used to collectively identify all categories of TsunamiReady® communities but not Supporter entities.

Communications/Dispatch Center: Agency or interagency dispatch centers, 911 call centers, emergency control or command dispatch centers, or other facility and staff who handle emergency calls from the public and communication with emergency management/response personnel.

Emergency Operations Center (EOC): The physical location at which the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility, a permanently established facility or located at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, medical services), by jurisdiction (e.g., federal, state, regional, tribal, city, county), or by some combination thereof.

24-Hour Warning Point (WP): A communication facility at a state or local level, operating 24 hours a day, which has the capability to receive NWS alerts and warnings, plus has the authority and ability to activate the public warning systems in its area of responsibility.

Emergency Operations Plan (EOP): A document maintained by various jurisdictional levels setting procedures for responding to a wide variety of potential hazards. It should include the following:

a) Describe how people and property will be protected
b) Detail who is responsible for carrying out specific actions
c) Identify the personnel, equipment, facilities, supplies, and other resources available
d) Outline how all actions will be coordinated

Emergency Management/Response Personnel: Includes federal, state, territorial, tribal, sub-state regional, and local governments, nongovernmental organizations (NGOs), private sector organizations, critical infrastructure owners and operators, and all other organizations and individuals who assume an emergency management role.

Incident: An occurrence, natural or manmade, that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wildland and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.

Integrated Warning Team (IWT): A local or state level team that consists of emergency management, America's Weather and Climate Industry (typically the broadcast media), and the NWS, that shares the common goal and responsibility of improving the warning system and reducing fatalities, injuries and property damage due to natural hazards.

Tsunami: A tsunami is a series of waves that can cause dangerous fluctuations of water along shorelines, and are generated by earthquakes, volcanic eruptions, or landslides that cause a large scale and rapid displacement of the water. Tsunamis can last minutes, hours, or even days. Tsunami is a Japanese word meaning harbor wave. Tsunamis are often incorrectly called tidal waves; they have no relation to the daily ocean tides.

Tsunami Source: Point or area of tsunami origin, usually the site of an earthquake, volcanic eruption, or landslide that caused a large scale and rapid displacement of the water resulting in a tsunami. A comet or meteorite impacting the ocean may also be considered a tsunami source.

Distant Tsunami: A tsunami originating from a faraway source, generally more than 1,000 km/621 miles or 3 or more hours tsunami travel time from its source to the area impacted. What may be a distant tsunami in one location can be a local tsunami for another location. A distant tsunami may also be referred to as a "far-field" tsunami hazard. The most common distant threats are from dangerous and unpredictable currents resulting in possible significant harbor and shoreline damage.

Regional Tsunami: A tsunami generated from a regional source, generally between 100 km/62 miles and 1,000 km/621 miles away or between 1 and 3 hours tsunami travel time from its source to the area impacted. What may be a regional tsunami in one location can be a local tsunami for another location. Regional tsunami also occasionally have very limited and localized effects outside the region. In comparison with a local tsunami, it gives a little more time for authorities to respond than the case of local earthquakes.

Local Tsunami: A tsunami generated from a nearby source with less than 1 hour tsunami travel time from its source to the area impacted. What may be a local tsunami in one location, can be a regional or distant tsunami for another location. A local tsunami may also be referred to as a "near-field" tsunami hazard. A local tsunami includes tsunamigenic influences due to tectonics in the source zone such as uplift, subsidence, landslides, and strong shaking. It is the focus of major destruction.

Inundation: The horizontal distance inland that a tsunami penetrates, generally measured perpendicularly to the shoreline.

Tsunami Evacuation Map: A graphical representation of coastal areas that outlines the hazard zones and designates limits beyond which people must be evacuated to avoid harm from tsunami waves. Evacuation routes and assembly areas are generally designated to ensure efficient movement of people out of the evacuation area and to areas of safety. Tsunami evacuation maps should be based on tsunami inundation model outputs or the best available science.

1.2 TsunamiReady® Recognition Guidelines

The TsunamiReady® guidelines have been modified to better align with the National Incident Management System (NIMS). The goal of this NIMS-TsunamiReady® integration is to enhance collaboration between emergency managers and the NWS by creating more consistency in terminology and standards. NIMS provides a consistent nationwide framework and approach to enable all levels of government, the private sector, and NGOs to work together while responding to an incident regardless of its cause, size, location or complexity. The TsunamiReady® guidelines best align with three of the five components of NIMS:

1. **Command and Management:** Designed to enable effective and efficient incident management and coordination by providing a flexible, standardized incident management structure

2. **Communication and Information Management:** Creates a standardized framework for communications and emphasizes the need for a common operating picture

3. **Preparedness:** Involves an integrated combination of assessment, planning, procedures and protocols, training and exercises, personnel qualifications, licensure, certification, evaluation, and revision

[Reference: Department of Homeland Security, *National Incident Management System*, December 2008.]

Since the tax base typically dictates the resources applied to public programs, the guidelines for TsunamiReady® recognition are currently based on four population categories (communities with populations of <2,500, 2,500-14,999, 15,000-40,000 and >40,000). TsunamiReady® guidelines include:

- Maintaining a Communication/Dispatch Center that serves as the 24-hour WP and an EOC with redundant methods for receiving NWS warnings and relaying them to the public, including Public Alert® certified NOAA Weather Radios placed in key facilities)
- Ensuring tsunamis are addressed in formal emergency management plans
- Using inundation mapping or the best available science to define tsunami inundation hazard zones, evacuation routes and assembly areas, and identifying them with the appropriate signs
- Conducting community preparedness programs (e.g., training, exercises, safety campaigns) on tsunamis, especially with schools in and near the tsunami hazard zone

- Establishing an effective working relationship between the emergency management agency/organization and the local NWS Forecast Office, including an understanding of the tsunami incident information (called "decision support" within the NWS). Decision support, provided by key NWS offices such as Tsunami Warning Centers, Caribbean Tsunami Warning Program, NWS Forecast Offices, Coastal Services Center, Pacific Marine Environmental Laboratory, National Data Buoy Center, National Geophysical Data Center, Center for Operational Oceanographic Products and Services, and the International Tsunami Information Center enables and enhances local decision making.

*__Note__: It is only necessary for "facilities" that are designated as "TsunamiReady® 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. See Appendix A for a detailed listing of the TsunamiReady® guidelines.

1.3 America's Weather and Climate Industry

America's Weather and Climate Industry (AWCI) is a key partner in helping the NWS fulfill its mission. AWCI includes all elements of the private sector (including media, consultants, equipment providers, etc.) which provide services to the public in the areas of climate, water, and weather. TsunamiReady® guidelines may be satisfied by incorporating products, data, and services provided by AWCI.

2 Authorities and Responsibilities

2.1 Weather Forecast Offices

It is the responsibility of each Weather Forecast Office's (WFO) Warning Coordination Meteorologist (WCM) or designee, as overseen by the Meteorologist-in-Charge (MIC), to implement and manage the TsunamiReady® Program within his or her county warning and forecast area (CWFA). This includes the following:

- Works with interested emergency managers by:
  - Assisting with application process
  - Archiving TsunamiReady® applications
  - Arranging for an optional recognition ceremonies
  - Planning for and following up on renewal process
  - Working with, where applicable, the Local, State and/or Regional TsunamiReady® Boards
  - Arranging for, when appropriate, TsunamiReady® Awards (see sections 6.2 and 6.3)
- Coordinates TsunamiReady® activities with state National Tsunami Hazard Mitigation Program (NTHMP) representatives and NWS region TsunamiReady® Program Managers.
- Reviews all TsunamiReady® applications, verifies the information, and coordinates their approval with the State/Territorial Tsunami Steering Committee or TsunamiReady® Board.

- Coordinates the prioritization of TsunamiReady® applicants with the State/Territorial Tsunami Steering Committee or TsunamiReady® Board based on available resources. The National TsunamiReady® Board recommends the following prioritization:
  - County, Borough, or Parish recognitions
  - Other full TsunamiReady® recognitions
  - TsunamiReady® Supporters
- Coordinates news releases with NOAA Public Affairs and Regional TsunamiReady® Program Manager.
- Adds recognitions to the NWS Headquarters Office of Climate, Water, and Weather Services TsunamiReady®/StormReady database.
- Mentors and trains WFO staff in the TsunamiReady® Program.
- Promotes the TsunamiReady® Program.
- Implements service improvements to the TsunamiReady® Program.
- Coordinates TsunamiReady® Award nominations with the State/Territorial Tsunami Steering Committee or TsunamiReady® Board.
- Reports TsunamiReady® activities (e.g., meetings with emergency managers, hazards preparedness education in communities, verification visits, ceremonies) through the NWS Outreach and Education Event System as per NWS Instruction 10-1804.
- Administers other aspects of the program as necessary.

WCMs/designees are required to inform TsunamiReady® and TsunamiReady® Supporter applicants who represent large event venues of information regarding NWS support of special events and the role of AWCI in providing tsunami and weather information. For more information, please reference:

- NWSI 10-1806 *NWS Support for Special Events*
- www.stormready.noaa.gov/resources/specialevents.pdf

WCMs/designees should also inform applicants that TsunamiReady® guidelines may be satisfied by incorporating data/services provided by AWCI.

2.2 Tsunami Warning Centers

It is the responsibility of each Tsunami Warning Center's (TWC) Director to support the TsunamiReady® program within his or her area of responsibility. This includes, but is not limited to, the following:

- Serving as NWS tsunami science and technical experts
- Working with state/territorial and local emergency officials on TsunamiReady® recognitions and coordinating those activities with the National TsunamiReady® Program Manager, Regional TsunamiReady® Program Managers, local WCMs and NTHMP partners
- Conducting regular dissemination tests and assisting with exercises to ensure proper and efficient tsunami warning delivery
- Providing tsunami science and warning system training

- Participating in outreach activities to improve tsunami hazard awareness and education
- Reporting TsunamiReady® activities through the NWS Outreach and Education Event System as per NWSI 10-1804

2.3 Regional Headquarters

The Regional Director is the first-line supervisor of the Tsunami Warning Centers, the Caribbean Tsunami Warning Program and the International Tsunami Information Center, and assigns TsunamiReady® Program responsibilities for the region. It is the responsibility of the designated Regional TsunamiReady® Program Manager, typically the Regional WCM, to manage the TsunamiReady® Program on a Regional basis. This includes the following:

- Coordinating TsunamiReady® programmatic, budgetary, and policy issues with NWS Headquarters on behalf of the region's WFOs
- Representing the region and participates on the NTHMP's Mitigation and Education Subcommittee (MES)
- Directing and overseeing service improvements to the TsunamiReady® Program
- Managing the regional budget and other resources for the TsunamiReady® Program
- Coordinating news releases with NOAA Public Affairs
- Promoting the TsunamiReady® Program
- Coordinating TsunamiReady® Award nominations between State/Territorial Tsunami Steering Committee or TsunamiReady® Boards and the National TsunamiReady® Program Manager
- When applicable, coordinating a Regional TsunamiReady® Board
- Reporting TsunamiReady® activities through the NWS Outreach and Education Event System as per NWSI 10-1804
- As necessary, developing and maintaining regional supplements to this national directive

2.4 NWS Headquarters - Office of Climate, Water, and Weather Services

The NWS Headquarters (NWSH) Office of Climate, Water, and Weather Services (OCWWS) is responsible for a variety of activities supporting the TsunamiReady® Program. The OCWWS Director assigns TsunamiReady® Program responsibilities for OCWWS.

2.4.1 OCWWS Tsunami Program

It is the responsibility of the Tsunami Program Manager or designee to manage the TsunamiReady® program on a national basis. The National TsunamiReady® Program Manager is on the staff of the Tsunami Program. The responsibilities of the National TsunamiReady® Program Manager include the following:

- Administers TsunamiReady® in collaboration with NTHMP partners including maintaining the listing of TsunamiReady® target/tsunami at-risk jurisdictions
- Coordinates TsunamiReady® programmatic, budgetary and policy issues within NWSH on behalf of the NWS Regional Headquarters, local WCMs and TWCs

- Represents the TsunamiReady® program on the NTHMP MES
- Directs and oversees service improvements to the TsunamiReady® program
- Manages the national budget, NTHMP/TsunamiReady® grant and other resources for the TsunamiReady® program
- Procures and manages national resources such as TsunamiReady® recognition signs, stickers, brochures and other tools
- Coordinates news releases with NOAA Public Affairs
- Works with the National WCM to oversee the national TsunamiReady®/StormReady database and website
- Promotes the TsunamiReady® program
- Coordinates TsunamiReady® Award nominations with the NTHMP MES and NWS WCMs.
- Serves as the OPR for this procedural directive
- Reports TsunamiReady® activities through the NWS Outreach and Education Event System as per NWSI 10-1804
- As necessary, develops and maintains memorandums of understanding or memorandums of agreement with national partners.
- Through the National Warning Coordination Meteorologist, serves as the primary point of contact for U.S. military installations located in other countries that are interested in becoming TsunamiReady®

2.5 International Tsunami Information Center

It is the responsibility of the International Tsunami Information Center's (ITIC) Director or designee to support the TsunamiReady® program as needed. This includes the following:

- Serving as NWS tsunami science and technical expert
- Working with state/territorial and local emergency officials in Hawaii, American Samoa, Commonwealth of Northern Mariana Islands (CNMI), and Guam on TsunamiReady® recognitions and coordinating those activities with the National TsunamiReady® Program Manager, Regional TsunamiReady® Program Managers, local WCMs, TWCs and NTHMP partners.
- Assisting with regular dissemination tests and exercises to ensure proper and efficient tsunami warning delivery
- Participating on the NTHMP's MES
- Providing tsunami science and warning system training
- Reports TsunamiReady® activities through the NWS Outreach and Education Event System as per NWSI 10-1804
- Participating in outreach activities to improve tsunami hazard awareness and education
- Socialize the U.S. TsunamiReady experience and address international interests in the program

2.6 Caribbean Tsunami Warning Program

The Caribbean Tsunami Warning Program (CTWP) is a NWS office in Puerto Rico co-located with the Puerto Rico Seismic Network at the University of Puerto Rico at Mayaguez. This office reports to and is managed by the NWS Southern Region Headquarters. It is the responsibility of the CTWP Director or designee to support the TsunamiReady® program as needed. This includes the following:

- Serving as NWS tsunami science and technical experts for U.S. interests in the Caribbean region
- Working with commonwealth/territorial and local emergency officials on TsunamiReady® recognitions and coordinating those activities with the National TsunamiReady® Program Manager, Regional TsunamiReady® Program Managers, local WCMs and NTHMP partners
- Assisting with regular dissemination tests and exercises to ensure proper and efficient tsunami warning delivery
- Assisting with regular dissemination tests and exercises to ensure proper and efficient tsunami warning delivery
- Participating on the NTHMP's MES.
- Providing tsunami science and warning system training
- Reports TsunamiReady® activities through the NWS Outreach and Education Event System as per NWSI 10-1804
- Participating in outreach activities to improve tsunami hazard awareness and education
- Socialize the U.S. TsunamiReady experience and address international interests in the program

2.7 TsunamiReady® Applicants

TsunamiReady® applicants work with their local WCM/designee and/or state/territorial NTHMP representative throughout the TsunamiReady® recognition process. This includes:

- Completing the application
- Working with the local WCM/designee on the verification of the application (section 3.2.1 below)
- Coordinating information for the optional recognition news release and ceremony
- Maintaining or improving on the site's compliance with TsunamiReady® guidelines throughout the valid period of the TsunamiReady® recognition
- Apprising the local WCM/designee about candidates for TsunamiReady® Awards
- Working with the local WCM/designee on renewal of the recognition

2.8 National Tsunami Hazard Mitigation Program

Formed in 1995 by Congressional action, the NTHMP is the nation's community-focused program to improve tsunami mitigation and preparedness of at-risk coastal areas within the United States and its territories. The NTHMP includes all 28 U.S. coastal states, territories and commonwealths, the USGS, FEMA and NOAA. Typically the state/territorial NTHMP representatives work for the state/territorial emergency management and geologic agencies' earthquake and tsunami programs. The NTHMP provides recommendations to the NWS on how to improve the TsunamiReady® program, particularly on ways to make communities more tsunami resilient through the use of inundation maps and other mitigation practices. In coordination with the local WCMs/designees, state/territorial NTHMP representatives lead State/Territorial Tsunami Steering Committees and the implementation of TsunamiReady® with their coastal communities.

2.8.1 NTHMP Mitigation and Education Subcommittee

Oversight and administration of the TsunamiReady® program is a responsibility of the NWS through collaboration and coordination with the NTHMP's Mitigation & Education Subcommittee (MES). The NTHMP MES may provide recommendations to the NWS regarding the consistent application of "recognition" guidelines nationwide. The NTHMP MES may review existing and proposed guidelines at its annual meetings and provide recommendations to the NWS. It may address TsunamiReady® challenges, suggest projects, publish guidance, and help prioritize future goals for the program. The NTHMP MES, in collaboration with NWS Regions and WFOs, may provide changes to the listing of NTHMP MES identified TsunamiReady® target/tsunami at-risk jurisdictions. Major issues that arise with TsunamiReady® may be elevated by the NTHMP MES co-chairs to the NTHMP's Coordinating Committee for subsequent review and final determination by the NWS TsunamiReady® Program Manager.

2.9 State/Territorial Tsunami Steering Committees

TsunamiReady® may also be collaboratively administered through State/Territorial Tsunami Steering Committees or Working Groups. These committees provide a forum for the state/territorial tsunami program/NTHMP representatives to coordinate with their coastal jurisdictions, state and federal agencies and other stakeholders. Many of the improvements to the TsunamiReady® program through the years have been through the grass roots collaborations of these committees. In some instances these tsunami steering committees help facilitate TsunamiReady® implementation in their state/territory. Since TsunamiReady® is a partnership with emergency managers and other public safety officials, it is ideal to have their participation in the administration of the program. The longstanding success of TsunamiReady® has proven this approach effective.

2.9.1 Local, State, Territorial and Regional TsunamiReady® Boards

In the absence of a State/Territorial Tsunami Steering Committee that facilitates TsunamiReady® implementation, NWS may create a TsunamiReady® Board to administer the program. TsunamiReady® Boards may be formed at the local, state, territorial or regional level. At a minimum, TsunamiReady® Boards have representatives from the NWS and emergency management agencies. TsunamiReady® Boards can enhance TsunamiReady® guidance to fit local and state/territorial situations. Examples may include an enhanced set of guidance for schools, universities, large event venues, etc. The TsunamiReady® branding will remain intact when implementing such efforts. Similarly, the TsunamiReady® administration and application forms may not be altered. NWS recommends enhanced TsunamiReady® or TsunamiReady® Supporter guidance be implemented through a toolkit, check list and/or other guidance maintained by the respective TsunamiReady® Board and promoted through the national TsunamiReady® website. WCMs/designees and emergency managers should use these resources to enhance the standard national TsunamiReady® guidelines when pursuing their TsunamiReady® or TsunamiReady® Supporter recognitions.

TsunamiReady® Boards may oversee all steps leading to a jurisdiction's TsunamiReady® recognition. This may include:

- Determining and documenting the Board's activities
- Providing incentives such as grant funding
- Promoting mitigation and preparedness best practices
- Implementing procedures for application review
- Coordinating ceremonies and awards
- Resolving specific issues
- Coordinating recommendations for change to the national guidelines, programmatic issues and nominations for awards with the NTHMP MES.

3 TsunamiReady® Application Process

The application for TsunamiReady® recognition is a formal process requiring the following:

- Emergency Manager submitting an application form
- Local WCM/designee verifying the information
- State/Territorial Tsunami Steering Committee or a TsunamiReady® Board reviewing the information
- WCM/designee providing formal notification of site recognition

TsunamiReady® application forms are cleared through the White House's Office of Management and Budget and will not be modified. TsunamiReady® application forms are available on the NWS TsunamiReady® website at: http://www.tsunamiready.noaa.gov/ts-apply.htm.

3.1 Application Submission

TsunamiReady® and TsunamiReady® Supporter applications should be sent to the local WCM/designee. If a hard copy is utilized, it should be scanned into an electronic format by the WCM/designee and stored locally. While much of the application is a basic accounting of technology, a brief narrative describing preparedness and planning activities is necessary and will help assess how tsunamis are addressed in the emergency operations plan, exercises, and public safety programs.

Note: Communities that apply for TsunamiReady recognition may also satisfy many of the requirements for becoming StormReady, and are therefore strongly encouraged to jointly apply for StormReady recognition as well.

Some applicants may have jurisdiction over a community and surrounding unincorporated areas. In these cases, a single application is sufficient, with the combined populations used to determine the appropriate guideline categories. If a community earns TsunamiReady® recognition, the unincorporated communities will be included in the recognition, but are not individually recognized. The State/Territorial Tsunami Steering Committee or TsunamiReady® Board coordinates how unique TsunamiReady® recognitions are implemented.

3.2 Application Review

The local WCM/designee reviews all TsunamiReady® and TsunamiReady® Supporter applications for the office's area of responsibility. The WCM/designee verifies the information with the applicant. For TsunamiReady® Recognition applicants, the WCM/designee then coordinates the approval with the State/Territorial Tsunami Steering Committee or TsunamiReady® Board. For TsunamiReady® Supporter applicants, the local WCM/designee may immediately approve the application. In either case, if an application indicates the guidelines are not met, the WCM/designee notifies the applicant about changes needed to meet the guidelines. After these changes are made, the applicant should submit an updated application for additional review by the local WCM/designee.

The State/Territorial Tsunami Steering Committee or TsunamiReady® Board may review a jurisdiction's TsunamiReady® application and discuss the verification of the information with the local WCM/designee. The State/Territorial Tsunami Steering Committee or TsunamiReady® Board may approve an application for recognition after this first review.

If the recognition is not approved, the State/Territorial Tsunami Steering Committee or TsunamiReady® Board will list improvements needed for the community to achieve recognition. If a community disputes a decision made by the State/Territorial Tsunami Steering Committee or TsunamiReady® Board, the dispute is forwarded to the NWS Regional TsunamiReady® Program Manager Board and the NWS National TsunamiReady® Program Manager for resolution. The NWS National TsunamiReady® Program Manager may consult with the NTHMP MES co-chairs for advice.

3.2.1 Verification of Application Information

The local WCM/designee verifies application information with the applicant. Historically, this process included a site verification visit. Due to the travel costs, the growth of the TsunamiReady® Program, and the emergence of effective web tools, the program now allows a virtual site verification visit. Tools such as video teleconference, Webinar, Go-To-Meeting, etc., may be used to verify an application's information. In extreme cases, for very remote communities, the verification may be accomplished via email and phone correspondence.*

In general, verification of an application by the WCM/designee includes the following:

- Verify WP and EOC equipment listed on application.
- Confirm suitable location and readiness of equipment.
- Review how tsunamis are addressed in the community's EOP including review of the following:
  - How the site identifies tsunamis and assesses risk
  - How tsunami inundation areas are identified and what procedures exist to prevent citizens from entering those areas or to evacuate such areas when necessary
  - When applicable, if local and distant tsunami hazards are addressed
  - EOC activation criteria and deactivation procedures
  - Communication/Dispatch Center procedures relating to tsunamis
  - Criteria and procedures for activating the public warning system in its area of responsibility
  - Contact information for all jurisdictional agencies and response partners including the NWS
  - Ability of the site to assess significant tsunami incidents through an After Action Review, or similar review, to identify lessons learned and best practices, and to evolve emergency response planning accordingly
- Understanding of how tsunamis are addressed in the community's mitigation and preparedness program(s), including activities such as safety campaigns, public education projects and exercises.

*In instances where remote verification is necessary, at a minimum verify the following through documentation and photographic evidence provided by the applicant to the local WCM/designee:

- EOC/Warning Point facilities
- Equipment used to receive and disseminate NWS warnings and information
- Tsunami evacuation maps and route signage
- EOP addressing tsunamis
- Training and exercises
- Community preparedness activities

Ultimately, it is the responsibility of the local NWS office and its Regional Headquarters to ensure that the principals of TsunamiReady® are being properly applied and the NWS mission is being served.

4 TsunamiReady® Recognition Process

Once the TsunamiReady® Site or TsunamiReady® Supporter application is approved, the local WCM/designee enters the information in the national TsunamiReady®/StormReady database. The applicant is notified through a formal recognition letter from the local MIC or WCM. A site is recognized for 3 years from the date the official letter of recognition. This date is the one the WCM/designee enters into the OCWWS national TsunamiReady®/StormReady database as the recognition date.

When the WCM/designee enters the new site into the database, the site has the option to request two TsunamiReady® signs (Appendix B) (Note: signs are only available through OCWWS when funding is available for procurement.) In addition the site will receive:

- A formal Certificate of Recognition
- Authorization to use the TsunamiReady® logo
- Instructions for acquiring additional signs
- Information concerning possible adjustment to insurance rates under the National Flood Insurance Program (section 6.1)

Recognition signs are suitable for display on or in buildings (e.g., courthouses, libraries, town halls, EOCs, etc.). Some communities have posted their signs along roadways; however, it is recommended that officials first consult county or state road departments regarding restrictions. TsunamiReady® recognition signs are not approved by the Federal Highway Administration.

Once the site is approved, the local WCM/designee may work with the successful applicant on an optional news release and/or recognition ceremony. The community will also now be listed on the national TsunamiReady® website.

4.1 TsunamiReady® Recognition Ceremony

The local WCM/designee will coordinate details of any recognition announcement and/or ceremony with the successful applicant. A typical ceremony includes a formal media announcement and should be a combination of the following:

- Unveiling of the official TsunamiReady® signs
- Presentation of a Certificate of Recognition
- Press conference

The local WCM/designee should work with NOAA Public Affairs and the Regional TsunamiReady® Program Manager to prepare the news release and coordinate ceremony activities. The NWS TsunamiReady® website and the OCWWS Integrated Database for Education and Awareness (password protected site available internally within NOAA/NWS) offer more information and examples of recognition materials.

4.2 TsunamiReady® Recognition Monitoring

A formal plan to monitor a recognized jurisdiction is not necessary; however, if a formal concern is brought to the State/Territorial Tsunami Steering Committee or TsunamiReady® Board, it will review the issue and may suspend the recognition for 60 days while the review is conducted. If the State/Territorial Tsunami Steering Committee or TsunamiReady® Board's review indicates the community no longer meets TsunamiReady® guidelines, and the discrepancy cannot be resolved within a reasonable amount of time, the local WCM/designee, State/Territorial Tsunami Steering Committee or TsunamiReady® Board will revoke that jurisdiction's TsunamiReady Recognition status (see section 4.4).

4.3 Renewal of TsunamiReady® Recognition

TsunamiReady® recognition will be valid for 3 years from the date of the official letter of recognition. This date will be entered in the national TsunamiReady®/StormReady database as the recognition date. Three months prior to the expiration of the recognition, the TsunamiReady®/StormReady database automatically sends a renewal reminder to the local WCM/designee. Following the applicable guidelines published at the time of the notification, the local WCM/designee coordinates with the point of contact from the jurisdiction to verify the original application information is still in order. Once verified, the local WCM/designee notes this information in the WFO's records and updates the renewal date in the TsunamiReady® database. The TsunamiReady® recognition renewal is then valid for an additional 3 years, 6 total years, from the date of the official letter of recognition. The local WCM/designee then notifies the site's point of contact regarding the approval of the renewal.

After the initial 3-year renewal, the subsequent renewal will require the community to renew the full application process (Section 3). This process helps ensure required equipment is in place, contact information is accurate, and technological advances in communications and warning dissemination are applied and documented as needed. Additional renewals will repeat the interval outlined above: after nine years, a contact renewal, after 12 years, a full application review, etc.

If the anniversary date for a renewal passes, a community will not immediately lose its TsunamiReady® status if it has communicated to the local WCM/designee it is ready and willing to accomplish the renewal. In these instances, the local WCM/designee should notify the WCM Program Coordinator in OCWWS for permission for a 6-month extension. A second 6-month extension may be granted in extreme cases. Once the renewal is completed, the local WCM/designee updates the TsunamiReady®/StormReady database indicating the renewal. The anniversary date from the date of the official letter of recognition will not change and the jurisdiction will have 6 months less time before their next renewal. For example, if the initial renewal was May 5, 2010, and the site does not renew until September 21, 2013, the renewal date would be May 5, 2013. The same rule applies to sites that are proactive and renew early.

A jurisdiction will only lose its TsunamiReady® status if it fails to renew its recognition as outlined above. The State/Territorial Tsunami Steering Committee or TsunamiReady® Board may request the TsunamiReady® signs be removed. The local WCM/designee, State/Territorial

Tsunami Steering Committee or TsunamiReady® Board will provide a written notification to the jurisdiction. A letter will also be sent to the National Flood Insurance Program informing them of this action. The local WCM/designee should also notify the WCM Program Coordinator in OCWWS and update the national TsunamiReady®/StormReady database and website.

4.4 TsunamiReady Recognition Status Revocation

A jurisdiction will only lose its TsunamiReady® status if it fails to renew its recognition as outlined above. The following actions will be taken:

- The local WCM/designee, State/Territorial Tsunami Steering Committee or TsunamiReady® Board will provide a written notification to the jurisdiction.
- A letter will also be sent to the National Flood Insurance Program informing them of this action.
- The local WCM/designee should also notify the WCM Program Coordinator in OCWWS and update the national TsunamiReady®/StormReady database and website.
- The State/Territorial Tsunami Steering Committee or TsunamiReady® Board may request the TsunamiReady® signs be removed.

5 TsunamiReady® Supporter

Coastal community businesses, schools, and other non-governmental entities often establish tsunami safety plans and actively participate in and promote tsunami awareness activities. Many of these entities do not have the resources necessary to fulfill the eligibility requirements for TsunamiReady® site recognition. An entity that promotes the principles and guidelines of the TsunamiReady® Program but does not meet the guidelines for TsunamiReady® Site recognition may be eligible to be designated as a TsunamiReady® Supporter. TsunamiReady® recognition of the county or community in which the entity resides is not a requirement to achieve the Supporter designation.

5.1 TsunamiReady® Supporter Applications, Designations and Renewals

Entities interested in becoming a TsunamiReady® Supporter should first check with their local WCM/designee to ensure that optional TsunamiReady® Supporter designations are utilized based on the determinations of the State/Territorial Tsunami Steering Committee or TsunamiReady® Board. If the local WFO participates and supports the optional TsunamiReady® Supporter Program, then entities should complete the Supporter application on the national TsunamiReady® website and submit it to their local WCM/designee for review. The WCM/designee and/or State/Territorial Tsunami Steering Committee or TsunamiReady® Board verify the information with the applicant and may immediately approve the application. If an application indicates the guidelines are not met, the applicant will be notified about changes needed to meet the respective guidelines. After these changes are made, the applicant should submit an updated application for review by the local WCM/designee and/or State/Territorial Tsunami Steering Committee or TsunamiReady® Board.

A TsunamiReady® Supporter receives a TsunamiReady® Supporter Certificate dated and signed by the local WCM/MIC and/or State/Territorial Tsunami Steering Committee or TsunamiReady® Board. The date printed on the TsunamiReady® Supporter Certificate will be considered the official date of the Supporter designation and is valid for up to 5 years (the State/Territorial Tsunami Steering Committee or TsunamiReady® Board may impose a shorter valid period based on their determinations). The local WCM/designee, in consultation with the local government emergency manager, may prepare an optional news release and/or ceremony. Upon request, the successful TsunamiReady® Supporter applicant will receive the following:

- TsunamiReady® Supporter certificate
- Authorization to use the TsunamiReady® logo
- Listing on the national TsunamiReady® website

Once approved, the local WCM/designee notes the site in her/his WFO's records and enters the Supporter into the national TsunamiReady®/StormReady database in the "Add TsunamiReady® Supporter" category.

Three months prior to the expiration of the Supporter recognition, the national TsunamiReady®/StormReady database sends an automated email to the local WCM/designee. Following the applicable Supporter guidelines, the local WCM/designee coordinates with the point of contact from the Supporter entity to verify the original application is in order. Once verified, the local WCM/designee notes this in the WFO's records and updates the TsunamiReady®/StormReady database. The local WCM/designee then notifies the point of contact from the jurisdiction for their records. If the local WCM/designee is unable to verify the Supporter's renewal or if the Supporter entity no longer wishes to participate, the local WCM/designee will delete the site from the national TsunamiReady® database.

6 TsunamiReady® Incentives

TsunamiReady® communities are better prepared to save lives from tsunamis through advanced planning, education, and awareness. No community is tsunami proof, but becoming TsunamiReady® can help communities save lives. Some incentives for participation in TsunamiReady® include:

- Improves coordination and timeliness of tsunami warning dissemination, reception and response
- Strengthens the working relationship between emergency managers and the NWS
- Provides a means for acquiring up to 30 Insurance Services Office/Community Rating System points to possibly lower National Flood Insurance Program premiums
- Helps emergency managers justify costs and purchases related to their tsunami preparedness programs
- Rewards local tsunami mitigation programs that have achieved a desired performance level
- Improves community image
- Recognizes emergency managers for their hard work helping their communities reduce

vulnerability to hazards and cope with disasters
- Encourages better tsunami preparedness programs in surrounding jurisdictions

6.1 National Flood Insurance Program

FEMA's National Flood Insurance Program (NFIP) provides federally backed flood insurance within communities that enact and enforce floodplain regulations. To be covered by a flood insurance policy (for the structure and/or its contents), a property needs to be in a community that participates in the NFIP. To qualify for the NFIP, a community adopts and enforces a floodplain management ordinance to regulate development in flood hazard areas. The objective of the ordinance is to minimize the potential for flood damage to future development. The NFIP has been effective in requiring new buildings to be protected from damage by a 1% chance flood, also known as the 100-year or base flood. However, flood damage still results from floods that exceed the base flood, from flooding in unmapped areas, and from flooding that affects buildings constructed before the community joined the NFIP. Today, over 21,600 communities in 56 states and territories participate in the NFIP.

The goals of the NFIP are to provide flood insurance to property owners, to reduce flood losses by communities, and to save taxpayers money. As a part of the NFIP, FEMA developed the Community Rating System (CRS) to provide incentives and tools to further all-hazards, pre-disaster mitigation. Under the CRS, communities can be rewarded for doing more than simply regulating construction of new buildings to the minimum national standards. The 2013 CRS Coordinator's Manual spells out the credits and credit criteria for community activities and programs that go above and beyond the minimum requirements for participation in the NFIP.

The CRS recognizes the importance not only of effective flood warning and response in a comprehensive floodplain management program, but also of coordinating public information, regulatory programs, and flood protection with the efforts of emergency management. Emergency management is included in a number of CRS activities, but especially the three activities in the 600 series, which focus specifically on the principle that an ample warning combined with a flood response plan can prevent loss of life and damage to property.

Under Section 610, "Flood Warning and Response Activities" of the CRS Coordinator's Manual, jurisdictions recognized by NWS as TsunamiReady® can receive **30** community rating points towards lowering their flood insurance rates. A community can participate in both the StormReady and TsunamiReady® programs and receive credit for both programs, StormReady Community (SRC) (25) and TsunamiReady® Community (TRC) (30) for up to **55** total community rating points. [Reference pp. 610-1 through 610-19, 2013 CRS Coordinator's Manual, FIA-15/2013]

In addition, both the TsunamiReady® and StormReady programs recognize communities that conduct community preparedness outreach and education on tsunamis and other flood hazards. Those efforts can contribute to a community's earning additional community rating points under Section 330 CRS "Outreach Projects" of the CRS Coordinator's Manual. [Reference pp. 330-1 through 330-21, 2013 CRS Coordinator's Manual, FIA-15/2013]. (Note: use current CRS Coordinator's Manual as applicable.)

CRS credits for TsunamiReady® are not automatically granted to each local jurisdiction that receives the TsunamiReady® designation. The 30 points are provided for obtaining and maintaining the designation as a NWS TsunamiReady® community AND meeting the following CRS prerequisites as outlined in section 611.b, "Activity Credit Criteria" and Section 612.f, "TsunamiReady® Community (TRC)" of the CRS Coordinator's Manual:

1. A Flood Threat Recognition (FTR) system that provides the community with the earliest possible detection that a flood is imminent. [Reference pp. 610-5 & 6]
2. Emergency Warning Dissemination (EWD) capability that provides emergency warning alerts and messages to the public when a flood is imminent. [Reference pp. 610-8 through 610-11]
3. A flood warning and response plan that details a Flood Response Operations (FRO) capability and that has been adopted by the community's governing body. This plan is likely addressed through the community's Emergency Operations Plan (EOP). [Reference pp. 610-3, 4 & 11-15]
4. Critical Facilities Planning (CFP). The community has coordinated its warning and response program with its critical facilities. [Reference pp. 610-15 through 610-17]
5. The community has completed a risk assessment for flooding as part of its floodplain management or hazard mitigation plan, or completed the CRS Community Self-Assessment. [Reference pp. 610-3]
6. The community has a flood inundation map(s) that shows areas that are inundated by at least three different flood and/or storm surge levels. [Reference pp. 610-3 & 4]
7. The community implements one or more outreach projects that tells its residents and businesses how they will be warned and the safety measures they should take during a flood. [Reference pp. 610-4 & 5]
8. There is at least one exercise and evaluation of the flood warning and response plan each year. [Reference pp. 610-5]
9. The community meets all the CRS tsunami hazards mapping requirements identified in *CRS Credit for Mitigation of Tsunami Hazards* . [Reference pp. 610-18]
10. The community has adopted a tsunami hazards operations plan that describes the actions the community is to take upon receiving a tsunami warning. This plan is likely addressed through the community's EOP. [Reference pp. 610-18]

Jurisdictions should notify their Insurance Services Office, Inc. (ISO)/Community Rating System (CRS) Specialist once they are officially recognized as TsunamiReady® by the NWS. The ISO/CRS Specialist is an employee of ISO, FEMA's CRS management contractor. During each verification visit, the ISO/CRS Specialist will ask for:

- A copy of the tsunami hazards map and a description of how it was prepared; and
- A copy of the tsunami emergency operations plan.

No documentation is required for communities to demonstrate their TsunamiReady® recognition status. The ISO/CRS Specialist will base this credit on the NWS listing of TsunamiReady® jurisdictions posted at http://www.stormready.noaa.gov/tsunamiready/ts-communities.htm.

6.2 TsunamiReady® Hero Award

The TsunamiReady® Hero Award is a special national level recognition that may be presented by senior NWS officials to an individual(s) within a jurisdiction recognized as TsunamiReady®. The award formally recognizes individuals within a TsunamiReady® community in which lives have been saved as a direct result of those individuals' proactive actions, personifying the NWS TsunamiReady® Program. TsunamiReady® Hero Award guidelines are as follows:

- Award consideration will take place on a case-by-case basis
- The award may be given to a single individual or to several public safety officials within a community
- The impacted community has successfully implemented and is recognized as TsunamiReady® before the tsunami event occurs
- Lives were saved as a result of the successful application of the Integrated Warning Team:
    - Detection of the tsunami hazard
    - Reception of the warning from NWS
    - Dissemination of the tsunami warning by emergency management officials to the at-risk community
    - Response/protective actions taken by the at-risk population
- There is clear and unambiguous evidence of proactive actions, *beyond the nominee's normal duties*, resulting in lives saved in the impacted community

A community may still be eligible for the award even if there was loss of life as long as there were lives saved as a direct result of the TsunamiReady® Program.

6.2.1 TsunamiReady® Hero Award Protocol

A TsunamiReady® Hero Award is nominated at the local level, either by an emergency manager or the local MIC/WCM. Typically the local WCM/designee prepares the nomination based on the award guidelines in Section 6.2 within 1 month of the event. The nomination is then forwarded to the State/Territorial Tsunami Steering Committee or TsunamiReady® Board for its approval. Once cleared, the Regional TsunamiReady® Program Manager shares the nomination with the National TsunamiReady® Program Manager. The nomination is then shared with the NTHMP MES members who formally vote on the nomination. A majority vote is needed by the NTHMP MES for approval. The National TsunamiReady® Program Manager then communicates the decision of the NTHMP MES to all parties. If approved, the following should occur (depending on available funding):

- Generally, a high profile media event is scheduled for the award presentation ceremony
- The ceremony should be arranged with collaboration among the following:
    - NWS/NOAA Public Affairs
    - Regional TsunamiReady® Program Manager
    - National TsunamiReady® Program Manager
    - Local WCM/MIC
    - State/Territorial Tsunami Steering Committee or TsunamiReady® Board

members
  - Sponsoring community/state organization
- A framed certificate(s) or plaque is presented to the recipient(s) at the award ceremony. The certificate/plaque should note TsunamiReady® Hero Award.
- The top NWS keynote speaker and presenter at the award ceremony will generally be determined by NWS leadership at the Regional or National Headquarters level.
- The news release from the TsunamiReady® Hero Award ceremony will be archived on the national TsunamiReady® website.

The local WFO is encouraged to also submit an *Aware* newsletter article highlighting the TsunamiReady® Hero accomplishment to the *Aware* managing editor.

6.3 TsunamiReady® Champion Award

The TsunamiReady® Champion Award is a special local or state level recognition presented by NWS officials to an individual(s) or organization for exceptional service, achievement and/or leadership through the TsunamiReady® program. TsunamiReady® Champions are individuals that have gone above and beyond their normal duties in advocating for and implementing TsunamiReady®. TsunamiReady® Champion Awards are approved by the State/Territorial Tsunami Steering Committee or TsunamiReady® Board. TsunamiReady® Champion Award guidelines are as follows:

- The award may be given to an individual(s) or an organization within a TsunamiReady® community or state.
- At least one of the following criteria should be achieved:
  - *Exceptional Service:* Through years of dedication has fostered a preparedness culture that personifies the TsunamiReady® program.
  - *Outstanding Achievement:* Has taken significant actions that have saved lives and/or property through the TsunamiReady® program.
  - *Visionary Leadership:* Through innovation and inspiration has led significant improvements in the effectiveness of the TsunamiReady® program.

6.3.1 TsunamiReady® Champion Award Protocol

A TsunamiReady® Champion Award is nominated at the local level, either by an emergency manager or the local MIC/WCM. Typically, the local WCM/designee prepares the nomination based on the award guidelines in Section 6.3. The nomination is then shared with the State/Territorial Tsunami Steering Committee or TsunamiReady® Board for its approval. The MIC/WCM will communicate the decision of the State/Territorial Tsunami Steering Committee or TsunamiReady® Board with all parties. The local WCM/MIC should keep both the Regional and National TsunamiReady® Program Managers informed throughout the process. The National TsunamiReady® Program Manager will inform the NTHMP MES. If approved, the following should occur (depending on available funding):

- Generally, NWS will hold a media event in collaboration with the following:
  - NWS/NOAA Public Affairs

  - Regional TsunamiReady® Program Manager
  - Local MIC/WCM
  - State/Territorial Tsunami Steering Committee or TsunamiReady® Board Sponsoring community/state organization
- A framed certificate(s) or plaque will be presented to the recipients at the award ceremony. The certificate/plaque will note TsunamiReady® Champion Award.
- Generally, the top NWS keynote speaker and presenter at the award ceremony will be determined by NWS leadership at the Regional Headquarters level. Typically this would be the local MIC.
- The news release from the TsunamiReady® Champion Award ceremony will be archived on the national TsunamiReady® website.

The local WFO is encouraged to submit an *Aware* newsletter article highlighting the TsunamiReady® Champion accomplishment to the *Aware* managing editor.

APPENDIX A - TsunamiReady® Recognition Guidelines*

Population:	< 2,500	2,500 - 14,999	15,000 - 40,000	>40,000
Component 1: Command and Management				
Guideline 1.1: Communication/Dispatch Center and Emergency Operations Center				
Operate Communication/Dispatch Center that serves as the 24-hour Warning Point (WP)	X**	X**	X	X
Operate Emergency Operations Center (EOC)		X**	X	X
Component 2: 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	X	X	X	X
Guideline 2.3: Communication				
Ensure routine communication between NWS and the emergency management agency/organization	X	X	X	X
Able to communicate within and across jurisdictions through resilient and redundant methods	X	X	X	X
Component 3: Preparedness				
Guideline 3.1: Planning				
Address tsunamis in formal Emergency Operations Plan (EOP)	X	X	X	X
Define tsunami evacuation areas, routes, and install evacuation route signs. Designate tsunami shelter/assembly areas outside the hazard zone.	X	X	X	X
Guideline 3.2: Training and Exercises				
Conduct tsunami exercise every three years	X	X	X	X
Ensure schools in the designated tsunami hazard zone practice evacuations	X	X	X	X
Train Dispatch Center/EOC staff biennially	X	X	X	X
Guideline 3.3: Community Preparedness				
Conduct the required **number of annual tsunami safety activities**	1	2	3	4
Provide written, locally specific tsunami hazard response material to public	X	X	X	X
Encourage schools to implement a tsunami hazard curriculum and provide safety material to staff and students	X	X	X	X

** TsunamiReady® 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. Please reference † Note below in Guideline 1.1 for more details.*

Component 1: Command and Management

The Command and Management component of NIMS is designed to enable effective and efficient incident management and coordination by providing a flexible, standardized incident management structure. Most tsunami incidents are managed locally with the response coordinated through the local Communications/Dispatch Centers and, if necessary, an EOC.

Guideline 1.1: Communication/Dispatch Center

To receive recognition under the TsunamiReady® Program, an applying jurisdiction will need a Communication/Dispatch Center that serves as the 24-hour 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 tsunami 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.) TsunamiReady® communities are expected to share tsunami inundation and 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 tsunami 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., 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: Emergency Operations Center

To receive recognition under the TsunamiReady® 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 tsunami 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 tsunami 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) 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) to relay real-time tsunami inundation and damage 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 an MoU. 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 "TsunamiReady® 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.

Component 2: Communication and Information Management

Emergency management and incident response activities rely on resilient and redundant communications and information systems to provide a common operating picture to all command and coordination sites. Effective communication is the key to incident management. This is especially true in natural hazard emergencies (e.g., tsunamis, wildfires, tornadoes) where rapid changes may permit only short lead-time warnings requiring an immediate, educated response.

Guideline 2.1: NWS Warning and Information Reception

To receive recognition under the TsunamiReady® 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
- **Wireless Emergency Alerts (WEA):** A service that allows public safety authorities to use FEMA's Integrated Public Alert Warning System (IPAWS) Open Platform for Emergency Networks (IPAWS-OPEN) to send geographically targeted, text-like wireless emergency alerts to the public
- **Amateur Radio transceiver:** Potential communications directly to NWS office
- **Alerts received through an AWCI provider:** Typically received via email, a texting service or app to a smartphone, tablet or computer
- **Television:** Access to local network or cable TV
- **Local Radio:** Emergency Alert System, LP1/LP2
- **Internet monitoring capability, including social media such as Facebook and Twitter**
- **Direct notification from TWC:** fax, email, or pager messages.
- **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

To receive recognition under the TsunamiReady® Program, an applying jurisdiction's Communication/Dispatch Center and EOC each need the authority and ability to activate the public warning system in its area of responsibility. A combination of the following can be used to 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
- *Counties, Parishes, Boroughs, etc.:* A countywide communications network that ensures the flow of information between all cities and towns within its borders. This would include acting as the surrogate WP and/or EOC for jurisdictions without those capabilities.

In addition to the above, when in reliable range of a NWR transmitter, Public Alert® certified NOAA Weather Radio receivers are required to be operated in key public facilities to be recognized as TsunamiReady®:

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

- **Recommended, but not required, Locations:**
  - Courthouses
  - Public libraries
  - Hospitals
  - All schools, usually located in principal's or designee office
  - 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

*__Note__: Usually, the NWR receivers would be located in the primary management office/facility that has the authority to alter operations and the ability to order protective actions based on the NWS tsunami or severe weather warning received.

Guideline 2.3: 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 TsunamiReady® 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

nongovernmental organizations and private-sector organizations. Effective cross-jurisdictional coordination using processes and systems is critical in this situation.

Component 3: Preparedness

Effective emergency management and incident response activities begin with a host of preparedness activities conducted on an ongoing basis, in advance of any potential incident. Preparedness is achieved and maintained through a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action. Ongoing preparedness efforts among all those involved in emergency management and incident response activities ensure effective coordination during crisis. In developing, refining, and expanding preparedness programs and activities within their jurisdictions and/or organizations, emergency management/response personnel should leverage existing preparedness efforts and collaborative relationships to the greatest extent possible.

Guideline 3.1: Planning

To receive recognition under the TsunamiReady® Program, an applying jurisdiction should address tsunamis in its formal EOP. Ideally, tsunamis are also addressed in the community's Local Hazards Mitigation Plan. If possible the tsunami section of these plans should:

- Identify hazards and provide a risk assessment
- Identify distant source (and local source when applicable) tsunami inundation hazard zones, evacuation routes and shelter/assembly areas outside the hazard zones
- Identify where tsunami hazard zone, evacuation route and assembly area signs are installed
- Set tsunami incident evacuation protocols and procedures including traffic control
- Set procedures to prevent citizens from entering hazard zones during a tsunami incident
- Detail Communication/Dispatch Center procedures relating to tsunami incidents
- Specify EOC activation criteria and deactivation procedures
- Specify criteria and procedures for the activation of the public warning system in its area of responsibility
- Provide contact information for all jurisdictional agencies and response partners including the NWS
- When applicable, coordinate procedures for evacuating harbors, ports and marinas and identifying off-shore evacuation areas for vessels to assemble. When applicable, coordinate procedures for minimizing tsunami impacts for critical facilities in the inundation zone such as power plants, water and sewage treatment plants, hospitals, airports, etc.
- Maintain the ability to assess significant tsunami incidents through an After Action Review (or similar), identify lessons learned and best practices, and evolve emergency response planning accordingly

Guideline 3.2: Training and Exercises

To receive recognition under the TsunamiReady® Program, an applying coastal jurisdiction should conduct an exercise relating to tsunamis every 3 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:

- **Tabletop:** Simulates an emergency situation in an informal, stress-free environment. The participants, usually decision-makers, gather around a table to discuss general problems and procedures in the context of an emergency scenario. The tabletop focus is on training and familiarization with roles, procedures, or responsibilities.
- **Functional:** Simulates an emergency in the most realistic manner possible, short of moving real people and equipment to an actual site. As the name suggests, its goal is to test or evaluate the capability of one or more functions in the context of an emergency event.
- **Full-scale:** A lengthy exercise that takes place on location, using—as far as possible—the equipment and personnel that would be called upon in a real event**.** Typically a full-scale exercise will use most EOP functions, coordinate the efforts of several agencies, and include activation of the EOC.

To receive recognition under the TsunamiReady® Program, an applying jurisdiction should conduct training for Communication/Dispatch Center and EOC staff (e.g., dispatchers) at least once every 2 years. The Communication/Dispatch Center should receive training on the following:

- Understanding NWS decision support services
- Monitoring tsunami incidents
- Using protocols for communicating tsunami inundation and damage reports to support the NWS warning decision making

Any training tool (e.g., web module, Webinar, presentation, instruction manual) can fulfill this guideline though local NWS WFO, TWC, or ITIC participation in the development and implementation of the tsunami training is desirable. TsunamiReady® communities are expected to share tsunami inundation and damage reports with their local NWS WFO in support of the TWCs. Using NWSChat or a similar communication tool is ideal for this type of coordination.

An applying jurisdiction also needs to ensure any schools located in their community's tsunami hazard zone practices evacuation drills at least once per school year. This practice is similar to the drills conducted by schools in earthquake or tornado prone areas. Not only does this practice better prepare the staff and students for the tsunami hazard but it also raises awareness throughout the at-risk community.

Guideline 3.3: Community Preparedness

To receive recognition under the TsunamiReady® Program, an applying jurisdiction needs to conduct a number of tsunami safety activities each year. This requirement is addition to providing written, locally specific tsunami hazard response material to the public and

encouraging schools in and near the tsunami inundation hazard zone to implement a tsunami hazard curriculum and provide safety material to staff and students.

A continuum of public education is vital in creating a preparedness culture in tsunami at-risk coastal communities. An educated public is more likely to plan for tsunamis, receive tsunami warnings, and to respond appropriately in those situations. A combination of the following preparedness activities can be used to fulfill this guideline:

- Conduct or facilitate 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., earthquakes, tsunamis, hurricanes/typhoons, floods, wildfires, tornadoes

- Offer tsunami-related safety awareness campaigns that include publicity for NOAA Weather Radio (where broadcast coverage exists), WEA and other local 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 evacuation procedures

- Establish and maintain a community program that includes tsunamis in its training, e.g., Citizens Corps, Community Emergency Response Teams

- Participate in the Emergency Management Accreditation Program (EMAP). EMAP is a voluntary review process for state and local emergency management programs. Accreditation is a means of demonstrating, through self-assessment, documentation and peer review, that a program meets national standards for emergency management programs

- Participate in a state, end-to-end communications test of the tsunami warning system. This includes activation of the EAS within your jurisdiction using a TSW real event code

- Conduct full-scale exercise for tsunamis with community involvement

- Implement/maintain a program to help the special needs populations in your jurisdiction prepare for and respond to tsunamis, e.g., a neighbor helping neighbor program

- Post tsunami safety information, including information on NOAA Weather Radio and WEA and other local public warning systems, on community websites, e.g., agency, organization, facility

- Issue Public Service Announcements (PSAs) on tsunami safety. PSAs could be sent through radio, TV, social media, etc.

- Post tsunami safety information on signs in your jurisdiction, e.g., billboard, highway, large outdoor video screens

- Conduct mass mailings of tsunami safety information to local residents and businesses

- Conduct workshops with local businesses (e.g., Chamber of Commerce, business associations) to help them develop their own mitigation strategies, emergency operations, and recovery plans

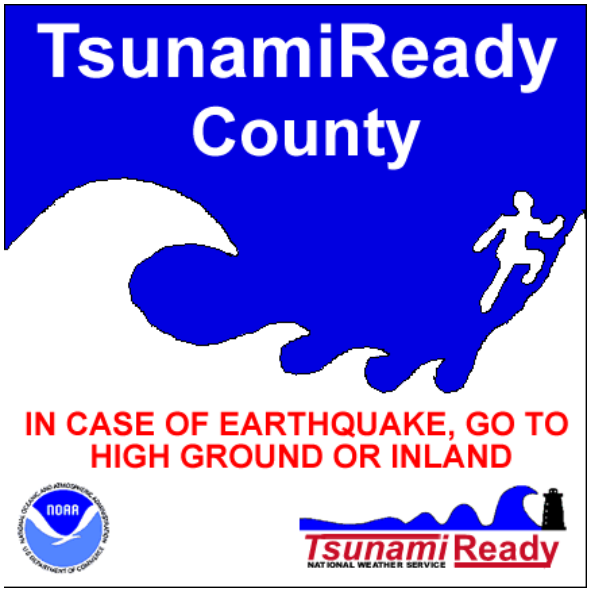
- Conduct presentations or workshops on tsunamis with faith-based organizations, community, and civic groups, e.g., Rotary, Kiwanis, Moose, Elks, Ruritans, Scout Troops

- Provide tsunami safety information through the local tourist industry, e.g., hotels, motels, camp grounds, restaurants, community visitor centers, recreational services, vehicle rental businesses, museums

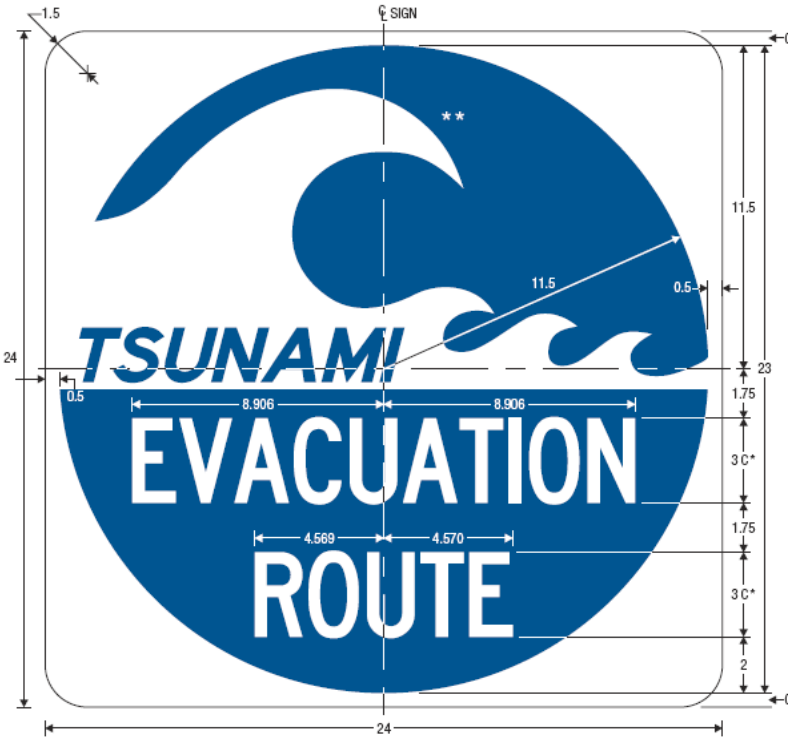
- Incorporate tsunami safety information into booths at community events, county fairs, boat shows, etc.

- Other, please explain

APPENDIX B - TsunamiReady® Recognition and Evacuation Route Sign Examples



Left: NWS TsunamiReady Community sign; Right, NWS TsunamiReady County sign.



Above: Tsunami evacuation route sign as per the Federal Highway Administration's 2012 Supplement to the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).