

CONSOLIDATED RESPONSE GUIDELINES AND COMMITMENTS

AMERICAN RED CROSS - SOUTH FLORIDA REGION

BROWARD COUNTY

MAY 2023



**American
Red Cross**

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INTRODUCTION

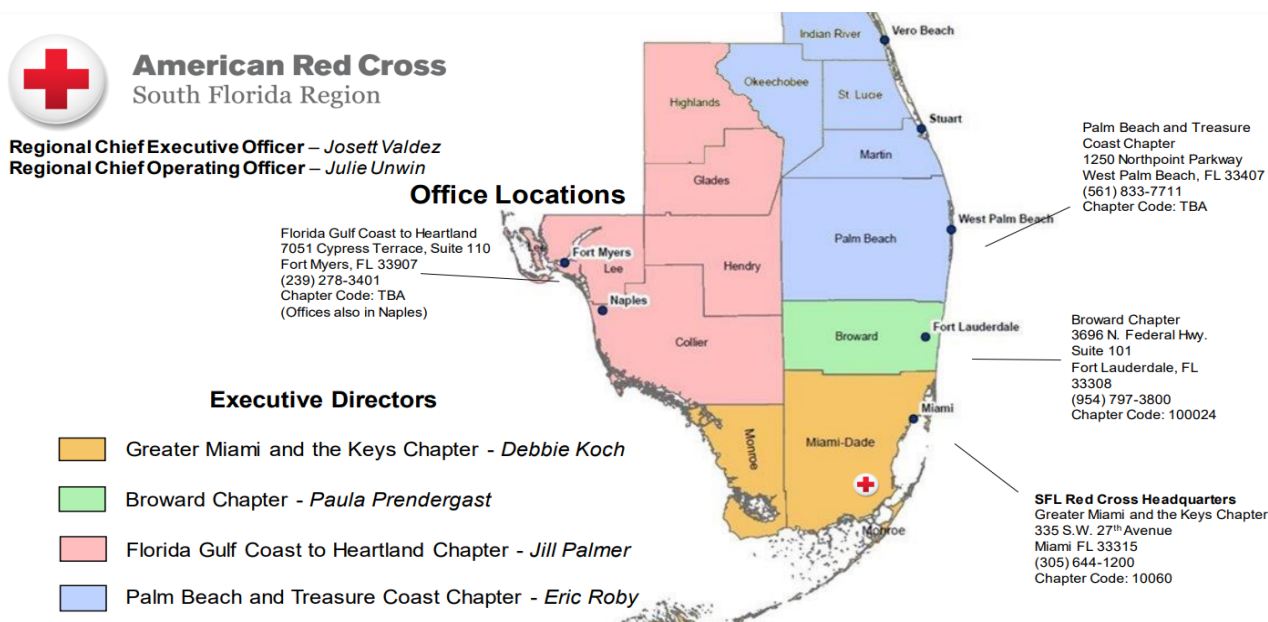
The American Red Cross realizes that emergency planning, which encompasses the whole community in your jurisdiction, requires that you be aware of the resources available from the partners that you rely on. We want to be as transparent as we can and make commitments that are clear, definitive and deliverable.

Below are the points of contact for your County. Attached you will find several documents, two of which are our Letters of Intent specific to your County. The initial one is a Letter of Intent for no-notice, all hazards types of events. This outlines our commitments in your area for these types of events. The second is a separate Letter of Intent specific to hurricanes and tropical cyclones.

In addition, attached you will find a copy of our most recent Response Guidelines which goes into more detail, generally about the American Red Cross activities in your County during both steady state and operational periods which we plan on updating every calendar year.

Contact Information			
Title	Name	Phone	Email
Disaster Program Manager	Nickolyn Ellison	786-385-8118	nickolyn.crosby@redcross.org
Disaster Program Specialist	Maria Cardona	954-299-7758	maria.cardona@redcross.org
Sr. Disaster Program Manager	Monica Rusconi	768-514-0044	monica.rusconi@redcross.org
Interim Regional Disaster Officer	Ken Turner	716-510-0233	ken.turner@redcross.org

SOUTH FLORIDA REGIONAL MAP AND DISASTER RESPONSE AREAS









American Red Cross South Florida Region

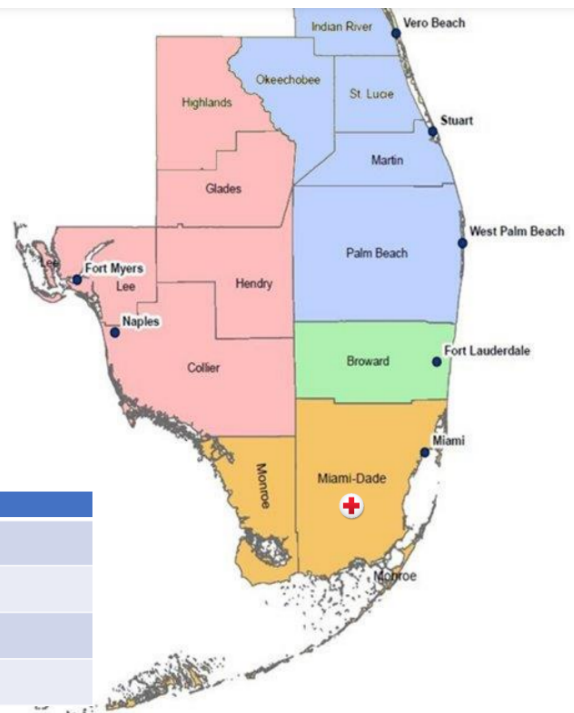
Regional Disaster Officer – Ken Turner

Senior Disaster Program Manager – Monica Rusconi

Disaster Response Areas

-  Miami & Monroe Disaster Response Area; Monroe, Miami-Dade
DPM: Ximena Poblete | DPS: Enrique Rivera | Regional DPM: Jose Rancano
-  Broward Disaster Response Area; Broward
DPM: Nickolyn Crosby-Ellison | DPS: Maria Cardona
-  Gulf Coast Disaster Response Area; Glades, Hendry, Lee, Collier, Highlands
DPM: Calli Lowe | DPS: Ethan Ticehurst
-  Palm Beach Disaster Response Area; Martin, Palm Beach, St. Lucie, Okeechobee, Indian River
DPM: Dustin Vangeison | DPS: Kyle Dickson

Satellite Offices	Address	County	Chapter
Vero Beach	2506 17th Ave, Vero Beach, FL 32960	Indian River	PBTC
Okeechobee	208 N Parrott Ave, Okeechobee, FL 34972	Palm Beach	PBTC
Naples	1100 Immokalee Rd, Naples, FL 34110	Collier	FGCH
Sebring	21 Ryant Blvd, Suite B, Sebring, FL 33870	Highlands	FGCH



SUMMARY OF COMMITMENTS FOR BROWARD COUNTY

Please read Letter of Intent for comprehensive listing

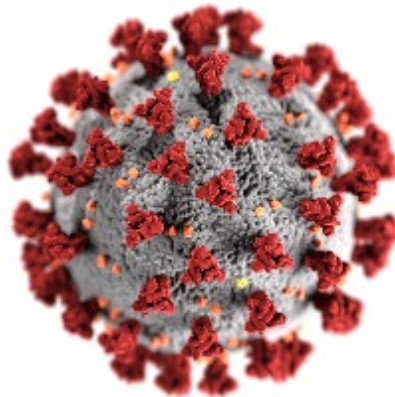
No Notice Events (tornadoes, wildfires, flooding, etc.)	
Activity	Commitment
Sheltering	Open 1 shelter in 4 hours & 2 shelters in 24 hours
Feeding	Combination of snacks, cold and hot meals, as resources allow

Notice Events (tropical cyclones) – Pre-Storm	
Activity	Commitment
Sheltering	Provide 7 Shelter Support Teams to support shelter dormitory operations
Feeding	County Responsibility
Notice Events (tropical cyclones) – Post Storm	
Sheltering	Manage up to 7 Recovery Shelters within 72 hours of the return of safe conditions and as resources allow
Feeding	Assume all feeding within ARC managed shelters; support community feeding upon request

Warming Centers	
Activity	Commitment
Sheltering	Material support if needed

COVID-19 PROTOCOLS

Given current high levels of vaccination and immunity due to both vaccination and prior infection, the risk of medically significant disease, hospitalization, and death from COVID-19 is greatly reduced. Therefore, the American Red Cross will transition from the operational protocols adopted during the acute phase of the COVID-19 pandemic to modified protocols reflecting a more routine infectious disease hazard. In essence, this means the return to pre-COVID standard operating procedures. If future outbreaks of new variants spur the limited or widespread return of mitigation measures, the American Red Cross remains fully prepared to respond in those acute pandemic conditions. For all Red Cross managed shelters all workers will be required to wear masks, regardless of their vaccination status and residents will be strongly encouraged to do the same.



No Notice, All Hazards Events

Just as all disasters begin at the local level, in the same way our responses begin at the local or territory level. Our initial responses are coordinated through the local disaster program manager and any initial response in the first 24 hours comes from local Red Cross resources in the Disaster Response Area affected. At 48 hours, we are able to draw from additional resources throughout the region and after that, from the Division, which encompass the southeastern United States.

Our region in South Florida is broken up into 4 Disaster Response Areas, they are:

1. BRO: BROWARD which includes Broward County
2. FGCH: FLORIDA GULF TO HEARTLAND which includes Collier, Hendry, Highlands, Glades and Lee Counties
3. GMK: GREATER MIAMI and the KEYS which includes Miami-Dade and Monroe Counties
4. PBTC PALM BEACH and the TREASURE COAST which includes Indian River, Martin, Okeechobee, Palm Beach, and St. Lucie Counties

We also realize that our region and your County may have some specific issues such as lack of availability of short-term sheltering facilities that may affect our response and may not be addressed directly in the *Letter of Intent* and we are happy to have a conversation about these.

Letter of Intent - No Notice, All Hazard Event

Being a committed partner to Broward County, the American Red Cross South Florida Region believes that clarifying roles, setting expectations, and quantifying operational capacity for 2022 are important, but more importantly, they are characteristics of good emergency management partnerships. We want to continue to build our good and trustworthy partnership with your agency and believe this level of transparency furthers that goal. This Letter of Intent further outlines our commitments in a more global, all hazards no-notice type of event.

Therefore, for a no-notice event affecting one or more jurisdictions in ARC Disaster Response Area BRO which comprises Broward County, the American Red Cross, as a support agency for Mass Care Services in your county, pledges to offer the following support, upon notification and as safe road conditions allow:

- Have a Red Cross Disaster Action Team on scene within 2 hours of notification to assess the situation and meet any immediate needs.
- Coordinate with the County's Emergency Operation Center, if activated, and provide a liaison to coordinate activities in person or remotely
- Open and initiate services at (1) shelter *in that ARC response area* within 4 hours, given that appropriate facilities are made available.
- Open and initiate services at (2) shelters *in that ARC response area* within 24 hours, given that appropriate facilities are made available.
- Provide feeding in those shelters with a combination of snacks, cold and hot meals, as appropriate and resources allow.
- Provide disaster health, mental health and spiritual care support as requested and resources allow.

In the unlikely event that our response to another major incident(s) diminishes our resource capability to honor the above commitments, we will notify Broward County Emergency Management immediately and help in supporting alternate plans.

Approved April 30, 2023

Notice Event (Tropical Cyclones)

This type of event is coordinated differently by the Red Cross than a no notice event. Whereas a localized event is managed at the regional level, a tropical cyclone is managed as part of a statewide operation in which SFL may be one of three Districts.

Your POC during the initial pre-landfall phase will remain the same as during steady state operations. When your EOC activates to Level 1 (Full Activation), we will transition to a dedicated Emergency Management Support Team for your County. That team will be your POC through landfall and will send a representative to any planning meetings where Red Cross presence is requested.

As a *support* agency for Mass Care Services in your County, the American Red Cross continues to offer support for evacuation operations, provide support for dormitory operations in some County managed shelters, provide training for County personnel in shelter operations, provide shelter management if requested and approved by both parties and coordinate with the County's Emergency Operation Center.

Within 72 hours post landfall, the American Red Cross will work with County Emergency Management to transition all families and individuals in need of short-term recovery sheltering due to the storm impacts into general population congregate shelters.

Short term recovery sheltering has always been our primary role in a hurricane event, and we will participate, if requested, in a Multi-Agency Shelter Transition Task Force (MASTT) to facilitate the efficient transition from short term to long term recovery in the community.

Letter of Intent - Notice Event (Tropical Cyclone)

The American Red Cross (ARC) of South Florida would first like to thank you for your continued partnership. Below, you will find our stated commitments for Broward County for the 2022 Hurricane Season.

1. Government Liaison/EOC Representative:
 - a. Red Cross will have a dedicated Emergency Management Support Team POC for your County to insure uninterrupted communication and coordination between the County and the Red Cross.
2. Pre-landfall Risk Shelters:
 - a. Provide Seven (7) Shelter Support Teams (ARC Shelter Support Lead and ARC Shelter Support staff) that will support shelter operations in Broward County shelters.
 - i. Notification of intended use of Red Cross resources and or requests will be no less than 24 hours prior to the arrival of tropical storm force winds, to ensure the safe movement of those resources.
 - ii. At 24 hours before the earliest reasonable arrival time of tropical storm force winds, as determined by NHC.NOAA.GOV, we will contact EM to confirm the need for ARC resources pre-landfall. If not confirmed, those resources will be allocated to other jurisdictions that have a need. Any requests past this point in time will be honored based on availability.
 - iii. Risk/Evacuation Shelters facilities must meet the Hurricane Shelter Site Selection Standards (attached for reference) for Red Cross to manage and/or support with human resources and possibly material resources.
3. Pre-Landfall/Evacuation Period Feeding:
 - a. Feeding at shelters will be the responsibility of the County or their designee (i.e., School District)
4. Post-Landfall Sheltering:
 - a. It is the intent, that the Red Cross will participate in Evacuation Shelter Transition Planning discussions, the outcome of which will be that the Red Cross will transition to post impact (Recovery) sheltering within 72 hours of the return of safe conditions and as resources allow. Red Cross will seek community sheltering options (Churches, Civic Organizations, and other NGOs), but if no facilities are available for recovery sheltering from community organizations, County EMA shall provide a facility for their residents.
5. Feeding Post-Impact:
 - a. Upon the return of safe conditions, the Red Cross may, upon request and based on the community assessment, provide community feeding (fixed site, mobile or both) as resources and safety protocols permit. If provided, all feeding will be in the form of pre-packaged food. Requests for community feeding from the County may require up to a minimum of 72 hours notice.
6. Shelter Training:
 - a. The Red Cross is available for virtual training of personnel in sheltering operations as deemed appropriate and with adequate planning.
7. Disaster Assessment:
 - a. The Red Cross will evaluate the humanitarian needs of the community, post impact, and will share those with County EM. This may include Mass Care needs and damage

assessment information. We ask that County EM also share information with the Red Cross regarding community needs and Damage Assessment as available.

8. Distribution of Emergency Supplies:
 - a. Red Cross has the capability to distribute recovery and comfort items in bulk either at fixed sites or through mobile distribution routes. Bulk distribution items will be determined from the Red Cross Disaster Assessment and requests from the County and the community. Items and resources may vary by disaster.
9. Individual Disaster Care:
 - a. Individual Disaster Care includes Disaster Health Services, Disaster Mental Health and Disaster Spiritual Care. The Red Cross is committed to providing each of these to the Red Cross Managed shelters. We may also coordinate these services with our partners as resources allow, upon request.
10. Shelter Resident Assessment:
 - a. Red Cross will assess the community needs (Mass Care, Health Services, Mental Health) and shelter residents needs to determine barriers to exiting the shelters. Services are contingent upon verification of identity, address, and the damage to the client's home. Client case services will include individual recovery planning and referrals to community resources. Client service may include financial assistance based on Red Cross needs assessment. The Red Cross will participate in a Multi-Agency Shelter Transition Task Force (MASTT) if one is established by FDEM and FEMA.

In the event that our response to another major incident may diminish our resources and impact our ability to honor the above, we will contact Broward County Emergency Management as soon as practicable to discuss alternatives and to suggest what services we may provide.

Approved April 30, 2023

Warming Centers

Although warming centers are not traditionally part of our mission, we recognize that prolonged periods of extreme cold may pose significant problems to a community. As with other community emergencies, the American Red Cross regions coordinate with local emergency management entities to determine the most appropriate response to address a particular need. Partnering to support the short-term operation of warming centers and/or shelters is an effective way to meet the emergency needs of those affected by extreme cold. In that regard, we will provide support in the form of blankets, comfort kits, snacks, and training, as we have in the past. The Red Cross may therefore, upon request by local emergency management before the season begins, partner to support the operation of warming centers in this way. This support is contingent on the lack of existing County homeless assistance programs and the availability of Red Cross resources.

Approved April 30, 2023

AMERICAN RED CROSS – SOUTH FLORIDA REGION

RESPONSE GUIDELINES

A GUIDELINE FOR RESPONSE DURING STEADY STATE & OPERATIONAL PERIODS

American Red Cross South Florida Region Response Guidelines

RED CROSS MISSION

The American Red Cross prevents and alleviates human suffering in the face of emergencies by mobilizing the power of volunteers and the generosity of donors.

VISION STATEMENT

The American Red Cross, through its strong network of volunteers, donors, and partners, is always there in times of need. We aspire to turn compassion into action so that...

...all people affected by disaster across the country and around the world receive care, shelter, and hope.

...our communities are ready and prepared for disasters.

...everyone in our country has access to safe, lifesaving blood and blood products.

...all members of our armed services and their families find support and comfort whenever needed; and

...in an emergency, there are always trained individuals nearby, ready to use their Red Cross skills to save lives.

STEADY STATE ACTIVITIES

PREPAREDNESS:

Home Fire Campaign

An initiative that aims to reduce deaths and injuries caused by home fires by asking every household in America to take two simple steps that can save lives: checking or installing smoke alarms and practicing fire drills at home. The American Red Cross and partners are making home visits to educate and assist with home fire preparedness.

Youth Preparedness: Pillowcase / Pedro Project

A free interactive preparedness program designed for young children. These interactive programs aim to increase awareness and understanding of natural hazards and teaches safety, emotional coping skills, and personal preparedness.

Hurricane Preparedness Activities

Regular activities conducted to prepare & test preparedness of the region for hurricane season. The activities include, disaster assessment training, shelter training, tabletop exercises, and shelter drills.

Community Preparedness

Volunteers provide the public a range of presentations, displays, interactive activities and information on natural and man-made disasters. Groups, clubs, associations and businesses and others have access to these programs.

RESPONSE:

Single & Multi Unit Residential Disaster

Disaster Action Teams (DAT) respond to meet the needs of families and individuals impacted by local disasters such as home fires, localized floods, and other events that displace them from their homes due to uncontrollable circumstances. Deferred maintenance on the part of the resident or property is not an uncontrollable circumstance that warrants Red Cross assistance.

DAT members assess and provide for the needs of those impacted by the event which may include financial assistance, replacement medications or medical equipment, mental health and spiritual care referrals, and recovery planning.

Every situation is different, and each case is evaluated to better meet their recovery needs.

Service to Armed Forces

The Red Cross has a longstanding Federally chartered mission to provide support to our military. Our services include: providing briefings to new military families on Red Cross services, assisting with career services for military spouses, verifying emergencies back home to support emergency leave, providing access to financial help during difficult times, assisting with other crises like mental health emergencies and homelessness, providing on-the-ground support in areas of armed conflict, providing lifesaving medical and rehabilitative care through volunteer doctors and nurses, comforting patients with visits, free books, toiletries and other care items and providing licensed behavioral health courses for adults and children.

WHAT WE TYPICALLY DO NOT DO:

Landlord Neglect or Faulty Maintenance Events

Events that are due to landlord neglect or faulty maintenance include: a fire suppression sprinkler system has gone off accidentally, plumbing that has failed, roof collapse or leaks due to ongoing repairs or neglect, evictions, the power to the building has been turned off by the local authorities for one of many safety reasons or other similar situations.

These do not fall within our mission and we do not typically respond. We rely on donor dollars to support our response activities and our mission precludes the use of those donor funds to enhance the profit of individuals or corporations whose responsibility it is to provide for their tenant's safety and wellbeing.

Every situation is evaluated on a case-by-case basis and special circumstances may exist that would alter our response.

In any case, we would act to advocate for the tenants with the landlord and provide emotional support as needed. We would ask that we be notified in such cases by the authorities so that we can make a timely decision as to our course of action.

Clothing Donations

The Red Cross is not equipped to handle a large influx of clothing donations that may or may not be useful to our clients. It takes time and money to store, sort and distribute donated items of this type. Our partners are better suited than the Red Cross to accept and process such donations.

Food Donations

For safety reasons, we are not able to accept perishable food donations and foods that have not been prepared by the Red Cross and/or our meal providers.

Provide facilities for sheltering.

The Red Cross does not own any shelter facilities and we therefore need an appropriate facility to be provided to accommodate the affected clients. The Red Cross will maintain a list of faith-based facilities that have agreed to participate in sheltering efforts in the community but if these facilities are unavailable or inappropriate, we then rely on the local jurisdiction to provide this facility. We also rely on the local jurisdiction to supply the security needed to ensure the safety and wellbeing of their displaced residents.

Transportation

The Red Cross is prohibited from transporting clients in any of our vehicles.

Medical Services

The Red Cross does not provide emergency medical care. We do provide assistance for lost or missing durable medical equipment and medications.

Blood Services

Although the Red Cross is involved in blood collection and supply in many parts of the country, in South Florida, we do not. Our partners locally fulfill this vital function.

OPERATIONAL STATE

Disaster Assessment

The process of observing, collecting, assessing, processing, and recording information about what has happened to each home affected by a disaster. Direct financial assistance to the displaced resident varies by incident and is dependent on this process.

Feeding

Feeding is when the Red Cross provides food, drinks, and snacks to those affected by disasters ranging from single-family home incidents to larger events such as tornadoes, floods, hurricanes, wildfires, and other catastrophic incidents. Feeding is offered to all who need it during a disaster event whether they are clients, first responders or others who are assisting in the relief effort including partners, utility workers, and other relief agencies.

Fixed Site Feeding

Fixed Feeding Site takes place at locations in and near the disaster-affected area.

Mobile Feeding (ERV)

Mobile Feeding uses emergency response vehicles (ERVs) and other vehicles to distribute prepared food to clients in their neighborhoods.

Canteening

Canteening serves first responders assisting with disaster response efforts, shelter residents and others who need hydration and, in some cases, food (snacks)

Shelter Operations – Notice and No Notice Events

Each shelter situation is different and for an *evacuation shelter* such as pre hurricane landfall, cots are not provided and, in most cases, the County has made arrangements for food to cover a 72-hour period. Each County has a different process for complying with their statutory responsibilities and we provide support when requested, to the level mutually agreed upon - this will vary greatly by County. In some cases, the Red Cross will only provide support to County sheltering efforts. In others, the Red Cross will provide management in addition to support.

In the Recovery phase of an event or after a No Notice event such as a tornado or wildfire, we will provide staff, meals, snacks, water, cots, and other necessary items for the clients until either the clients return to their homes or other arrangements can be made.

Regardless of the agreed upon role of the Red Cross, it is the ultimate responsibility of the County to provide for the safety of their citizens - this includes assurances that Law Enforcement will provide the requisite security for the wellbeing of any shelter residents in our care.

Mass Casualty Events

Family Reunification Centers are opened in the immediate aftermath of mass casualty incidents to support survivors, family members, and friends. People often become separated during the rescue/evacuation process, and these sites serve as temporary holding areas while people are awaiting news or reunification. Family Reunification Centers are often established near the immediate disaster scene, where individuals arrive in search of family and other loved ones involved in the incident, or in healthcare facilities where the injured have been transported.

After several hours, if it becomes apparent that the incident will take longer to resolve, the Family Reunification Center will be replaced by (or transition into) a more structured and operational Family Assistance Center.

The Red Cross role in establishing a Family Reunification Center and/or a Family Assistance Center varies from incident to incident. Sometimes the Red Cross takes a leadership role, but more frequently, the Red Cross is one of many supporting partners in the operation.

Red Cross provides information and helps meet the immediate physical, spiritual, and psychological needs of families and friends who arrive at the scene looking for their loved ones and provides information as to when and from whom explicit information will come. The HIPAA Privacy Rule does not apply to the Red Cross in this type of event.

Client Casework (Recovery)

The Red Cross Casework and Recovery Planning process is a humanitarian process that assists disaster-affected individuals and families in their recovery from disaster. Caseworkers and Disaster Action Team responders work to empower Red Cross clients and assist them in developing recovery plans and preparing for future disasters. Services are provided with the intent of helping clients to bridge the gap between what they can accomplish on their own and what is necessary to allow them to move through the recovery process.

The Red Cross provides these services upon a client's request, and they may overlap both the response and recovery phases of a disaster. Using the Casework and Recovery Planning process, the Red Cross seeks to:

1. Assist clients in understanding the recovery process and their personal options and choices in the unfamiliar setting of a disaster's aftermath.
2. Facilitate connections between clients and the available resources of our network.

Through the accomplishment of the above, we strive to help our clients to build personal resilience and future preparedness.

Distribution of recovery supplies (clean-up kits, shovels, etc.)

Bulk Distribution provides items essential to basic survival, health, and sanitation as quickly and equitably as possible to those affected by disaster. The items provided meet the specific, urgent, needs of the disaster-affected community. Bulk distribution is a phased system of delivery that initially supplies essential life sustaining items, such as food, water, baby formula, diapers, toilet paper, and hand sanitizer. Later, we supply clean-up and recovery items, such as bleach, work gloves, mops, buckets, brooms, rakes, and salvage bags when clients return home. For catastrophic events, food, water, and other life-sustaining and sanitation supplies are distributed. The methods of distribution are coordinated with other agencies and distribution efforts may be combined. Items are distributed via mobile delivery or at fixed sites.

WHAT WE TYPICALLY DO NOT DO:

Clothing Donations

The Red Cross is not equipped to handle a large influx of clothing donations that may or may not be useful to our clients. It takes time and money to store, sort and distribute donated items of this type. Our partners are better suited than the Red Cross to accept and process such donations.

Food Donations

For safety reasons, we are not able to accept perishable food donations and foods that have not been prepared by the Red Cross and/or our meal providers.

Provide facilities for sheltering

The Red Cross does not own any shelter facilities and we therefore need an appropriate facility to be provided to accommodate the affected clients. The Red Cross will maintain a list of faith-based facilities that have agreed to participate in sheltering efforts in the community but if these facilities are unavailable or inappropriate, we then rely on the local jurisdiction to provide this facility. We also rely on the local jurisdiction to supply the security needed to ensure the safety and wellbeing of their displaced residents.

Responsibility for intermediate and long-term housing

The Red Cross' mission provides for immediate, short-term assistance to those affected by a disaster. The responsibility for intermediate to long term housing of displaced residents rests with the Social Service departments of the local jurisdictions. This includes provisions for the chronically homeless. When *evacuation shelter* closures are imminent, existing County social service organizations or other community organizations that deal with unmet human needs in the County need to make provisions for repatriation of clients in the shelters that are chronically homeless or otherwise vulnerable.

The Red Cross will play an active role as advocates for all residents, but it is ultimately up to the local jurisdiction to facilitate the transition.

Transportation

The Red Cross is prohibited from transporting clients in any of our vehicles.

Medical Services

The Red Cross does not provide emergency medical care. We do provide assistance for lost or missing durable medical equipment and medications. In addition, we may support ongoing response activities.

Warming Centers

Although warming centers are not traditionally part of our mission, we recognize that prolonged periods of extreme cold may pose significant problems to a community. The Red Cross may, upon request by local emergency management entities before the season begins, partner to support the operation of warming centers. This support is contingent on the lack of existing County homeless assistance programs and the availability of Red Cross resources.

Hurricane Evacuation Shelter Selection Standards

Disaster Cycle Services Job Tools

Respond Program

Purpose

To help ensure safe shelter for an evacuating public, an interagency group comprised of the Federal Emergency Management Agency (FEMA), the U.S. Army Corps of Engineers, the Environmental Protection Agency (EPA), and Clemson University supported the development of the 1992 hurricane evacuation shelter selection standards. These standards reflect the application of technical data compiled from hurricane evacuation studies, other hazard information, and research findings related to wind loads and structural problems. The American Red Cross continues to coordinate with scientific sources to maintain and update these standards as new information becomes available. The standards are supplemental to information contained in the following Red Cross doctrine concerning shelter selection (copies available upon request):

- [Operating a Shelter Job Tool](#)
- [Sheltering Standards and Procedures](#)
- [Facility Management Standards and Procedures](#)
- [Shelter Facility Survey](#)
- [Disaster Facility Requirements Checklist](#)
- [Facility Use Agreement](#)

Planning considerations for hurricane evacuation shelters involve a number of factors and require close coordination with the local officials responsible for public safety. Technical information contained in hurricane evacuation studies, storm surge, flood mapping, and other data can be used to help make informed decisions about the suitability of shelters.

With the vast amount of technical knowledge that exists today, in advance of any hurricane threat, the Red Cross will no longer support (with materials, people, or money) shelters that do not meet the minimum requirements stated in this job tool. The Red Cross vigorously supports all safe sheltering efforts within our capabilities.

Standards to Address Hazards Associated with Hurricanes

In the experience of the Red Cross, the majority of people evacuating due to a hurricane threat generally provide for themselves or stay with friends and relatives. However, for those who do seek public shelter, safety from the hazards associated with hurricanes must be assured. These hazards include:

- Surge inundation;
- Rainfall flooding;
- High winds;
- Hazardous materials.

The standards below address the risks associated with each of these hurricane-associated hazards.

Surge Inundation

In hurricane planning, evacuation shelters should not be located in areas vulnerable to hurricane surge inundation. The National Weather Service has developed mathematical models, such as Sea, Lake, and Overland Surges from Hurricanes (SLOSH), that are critical in determining the potential level of surge inundation for a given area. Steps to follow in ensuring shelters are safe from surge inundation include:

- Carefully review inundation maps to ensure that all hurricane evacuation shelters are located outside of Category 4 storm surge inundation zones, except for the coastline from Virginia to Maine where shelters must be located outside of Category 3 storm surge zones. This difference in surge vulnerability is based on current climatology science and the statistical improbability of a Category 5 hurricane occurring north of the NC/VA state line to align with hurricane evacuation and planning tools released by the National Hurricane Center (NHC).
- Due to the intricate nature of specific levees and mitigation systems and the uncertainty built into current modeling, any area that is listed as a “leveed area” without a surge value on inundation maps will be considered located in a **Category 1 Surge Zone/A Flood Zone**. In order for shelters to be located behind a leveed area, actual surge and flood vulnerability for the area must be shared with Red Cross and reviewed by national headquarters to ensure all parameters of safe sheltering have been met.
- Avoid buildings subject to isolation by surge inundation in favor of equally suitable buildings not subject to isolation. Confirm the accuracy of base flood elevations for all potential shelter facilities and access routes obtained from topographic maps.
- Do not locate hurricane evacuation shelters on barrier islands.

Rainfall Flooding

Rainfall flooding must be considered in the hurricane evacuation shelter selection process. Flood Insurance Rate Maps (FIRMs), as prepared by the National Flood Insurance Program, should be reviewed, particularly for riverine inundation areas and for shelters in inland counties.

Locate hurricane evacuation shelters outside the 100-year floodplain.

- While it is permissible to locate hurricane evacuation shelters within the 500-year floodplain, this tactic should be avoided if alternative facilities are available outside of the floodplain.
- Avoid selecting hurricane evacuation shelters in areas likely to be isolated due to riverine inundation of roadways.
- Ensure a hurricane evacuation shelter’s first floor elevation is on an equal or higher elevation than that of the base flood elevation level for the Flood Insurance Rate Map area.
- Consider the proximity of shelters to any dams and reservoirs to assess flow upon failure of containment following hurricane-related flooding.
- All buildings with flat roofs must have a scheduled maintenance program to keep drains/scuppers free from debris buildup during the year.

High Winds

Consideration of any facility for use as a hurricane evacuation shelter must take into account wind hazards. Both design and construction problems may preclude a facility from being used as a shelter. Local building codes are frequently inadequate for high wind speeds.

- Ideally, select buildings that a structural engineer has certified as being capable of withstanding wind loads according to American Society of Engineers (ASCE) (7-10) or Safety Equipment Institute (SEI) / American National Standards Institute (ANSI) (7-05) structural design criteria. Ideally, these structures should meet Emergency Shelter Criteria in International Code Council - ICC-500 (2014) and accessibility requirements in ICC A117.1 (2009).
- Acceptable buildings must meet ASCE 7-98 or ANSI A58 (1982) structural design criteria.
- Buildings must be in compliance with all local building and fire codes.
- If a certification is not available (see first bullet above), request a structural engineer through local authorities to rank the proposed hurricane evacuation shelters based on his or her knowledge and the criteria contained in these guidelines.
- Avoid uncertified buildings of the following types:
 - Buildings with long or open roof spans longer than 40 feet
 - Unreinforced masonry buildings
 - Pre-engineered (steel prefabricated) buildings built before the mid-1980s
 - Buildings that will be exposed to the full force of hurricane winds
 - Buildings with flat roofs or built with lightweight materials
- Give preference to the following:
 - Buildings with 10°-30° pitched, hipped roofs, or with heavy concrete roofs
 - Buildings no more than 60 feet high
 - Buildings in sheltered areas (protected from strong winds)
 - Buildings with access routes that are not tree-lined

Hazardous Materials

The possible impact from a spill or release of hazardous materials should be taken into account when considering any potential hurricane evacuation shelter. All facilities manufacturing, using, or storing hazardous materials (in reportable quantities) are required to submit *Material Safety Data Sheets* (emergency and hazardous chemical inventory forms) to the Local Emergency Planning Committee (LEPC) and the local fire department. These resources can help determine the suitability of a potential hurricane evacuation shelter or determine precautionary zones (safe distances) for potential shelters near facilities that manufacture, use, or store hazardous materials.

- Facilities that store certain reportable types or quantities of hazardous materials may be inappropriate for use as hurricane evacuation shelters.
- Hurricane evacuation shelters should not be located within the 10-mile emergency planning zone (EPZ) of a nuclear power plant. Shelters must be located outside the one-mile emergency planning zone.
- Regions must work with local emergency management officials to determine if hazardous materials present a concern for potential hurricane evacuation shelters.

Interior Building Safety Criteria During Hurricane Conditions

Based on pre-storm hazards (e.g., arrival of gale-force winds or flooding rains) work with local emergency managers to determine a notification procedure regarding when to move a shelter population to predetermined safer areas within a facility. Consider the following:

- Do not use rooms attached to, or immediately adjacent to, unreinforced masonry walls or buildings.
- Do not use gymnasiums, auditoriums, or other large open areas with long roof spans (longer than 40 feet) during hurricane conditions, unless the building meets engineered requirements mentioned in the [High Winds](#) section.
- Avoid areas near glass unless an adequate shutter protects the glass surface. Assume that windows and the roof will be damaged and plan accordingly.
- Use interior corridors or rooms.
- In three-story and larger buildings, use only the lower floors (no higher than 60 feet), and avoid corner rooms.
- Avoid any wall section that has portable or modular classrooms in close proximity, if these are used in the community.
- Avoid basement(s) if there is any chance of flooding.

Hurricane Evacuation Shelter Selection Process

General procedures for investigating the suitability of a building or facility for use as a hurricane evacuation shelter are as follows:

- Identify viable sites taking into consideration evacuation and transportation route models.
- Complete a risk assessment on each viable site.
 - Gather all pertinent data from the Sea, Lake, and Overland Surges from Hurricanes and the Flood Insurance Rate Maps models.
 - Determine the facility's base flood elevation.
 - Obtain hazardous materials information and previous studies concerning each building's suitability.
- Have a structural engineer evaluate the facility and rate its ability to withstand wind loads according to American Society of Engineers (ASCE) 7-10 or Safety Equipment Institute (SEI)/ American National Standards Institute (ANSI) 7-05 structural design criteria. Ideally, these structures should meet Emergency Shelter Criteria in ICC-500 (2014) and accessibility requirements in ICC A117.1 (2009). As a next step, facilities that meet ASCE 7-98 or ANSI A58 (1982) may be considered. Other facilities not meeting the criteria mentioned above should only be considered after these have been reviewed.
- Inspect the facility and complete a *Red Cross Shelter Facility Survey* and other required paperwork, in accordance with Red Cross doctrine.
 - Note all potential liabilities and the type of construction.
 - Consider the facility as a whole. One weak section may seriously jeopardize the integrity of the building.



- Determine required time to resource shelters with food, blankets, and personnel prior to opening and share with local emergency management to help ensure decisions are made with enough time to correctly get the facility operational. On an annual basis, share capabilities with local emergency management to assist with overall evacuation planning.

Increasing Shelter Inventory

An annual review of all selected hurricane evacuation shelters is required. Facility improvements, additions, or deterioration may alter the suitability of a selected facility as a hurricane evacuation shelter. Facility enhancements may also enable previously unacceptable facilities to be used as hurricane evacuation shelters. Work with officials, facility managers, and school districts on mitigation opportunities. Continue to advocate that the building program for new public buildings, such as schools, should include provisions to make them more resilient to possible wind damage. Suggest minor modifications of municipal, community, or school buildings, such as the addition of hurricane shutters, while buildings are being planned. Such modifications will make these structures more useful as hurricane evacuation shelters. Finally, add any new shelters to the regional shelter plan, the National Shelter System (NSS), and disaster response plans. Share shelter information with local emergency planning partners.

Planned Least-Risk Decision Making

Safety is the primary consideration for the American Red Cross in selecting hurricane evacuation shelters. When anticipated demands for hurricane evacuation shelter spaces exceed existing capacity as defined by the preceding standards, there may be a need to utilize less-preferred facilities. It is critical that shelter selection decisions be made carefully and in consultation with local emergency management and public safety officials. This process should include the following considerations:

- No hurricane evacuation shelter should be located in an evacuation zone for obvious safety reasons. All hurricane evacuation shelters should be located outside of Category 4 storm surge inundation zones or Category 3 storm surge inundation zones for the coastline from Virginia to Maine. Certain exceptions may be made when absolutely necessary and only if there is a high degree of confidence that the level of wind, rain, and surge activities will not surpass established shelter safety margins.
- When a potential hurricane evacuation shelter is located in a flood zone, it is important to consider its viability. By comparing elevations of sites with topographical maps and Flood Insurance Rate Maps, one can determine if the shelter and major means of egress are in any danger of flooding.
 - No shelter should be located in V or A Zones.
 - Zones B, C, and D may allow some flexibility. Requiring a closer look at elevations to avoid unnecessary problems of flooding, ponding, or isolation.
- In the absence of certification or review by a structural engineer, any building selected for use as a hurricane evacuation shelter must be in compliance with all local building and fire codes. Certain exceptions may be necessary, but only after an evaluation of each facility, using the aforementioned building safety criteria.

- The Red Cross uses the planning guideline of 40 square feet of space per shelter resident.
 - During hurricane conditions, on a short-term basis, shelter space requirements may be reduced. Ideally, this requirement should be determined using no less than 15 square feet per person. Adequate space must be set aside for registration, health services, and safety and fire considerations. Disaster Health Services areas should still be planned using a 40- square-feet per person calculation. On a long-term recovery basis, shelter space requirements should follow the guidelines established in Red Cross doctrine.