

**CITY COUNCIL OVERSIGHT COMMITTEE MEETING**

**CONFERENCE ROOM – MUNICIPAL BUILDING  
201 WEST GRAY**

**WEDNESDAY, AUGUST 7, 2013**

**5:30 P.M.**

- 1. DISCUSSION REGARDING SEVERE WEATHER PREPAREDNESS.**
- 2. MISCELLANEOUS DISCUSSION.**



Date: July 29, 2013  
To: Steve Lewis, City Manager  
From: James Fullingim, Fire Chief  
Subject: Storm Shelters

**BACKGROUND:**

This memo is an updated version of a memo provided to the City Council in January 2010. The City of Norman has historically opened four locations during severe weather for the purpose of providing shelter to residents. From interviews with long time and retired employees, it is understood that these shelters began to open to the community after the current two new middle schools were built in the early 1970's. Previous to that, there were no City operated severe weather shelters. Residents were allowed access to the University of Oklahoma Memorial Stadium, along the east side. The University ended the accessibility to the stadium during the expansion process and currently is no longer available as a severe weather shelter to the general public. The following is general information regarding the shelters:

1. Shelters are expected to open approximately one hour before anticipated severe weather.
2. There are no effective means to advise citizen's shelters are open.
3. If citizens choose to utilize a shelter, they leave where they are to go to a shelter. This places them in the storm to get to a shelter and places them in harms way.
4. These shelters are opened and staffed by the Fire Department and there are no current means provided to screen citizens or to provide civil control upon entry into the shelters.
5. The expectation is the City of Norman will open and operate shelters during periods of severe weather. The intent being, these shelters will be available should residents have no other safe location to utilize.
6. Two of the shelters are located in schools, Cleveland Elementary and Little Axe High School. The other two are in the recreation centers on school property at Irving and Whittier Middle Schools.
7. The shelter locations may not be adequate to meet federal requirements regarding survivability (FEMA 361), NFPA Life Safety Code and the Pets Evacuation and Transportation Standards Act of 2006 (PETS Act).

office memorandum

## **DISCUSSION:**

The City of Norman conducts severe weather operations in conjunction with the City of Moore and the National Weather Service. As part of the operation, the decision to open shelters may be made. Opening these shelters is somewhat a difficult decision considering the one-hour lead-time necessary and is based on the knowledge of the individual and the weather situation at the time. As part of the severe weather operations, geographical trigger points are established to assist in the decision making process to open the shelters.

Pursuant to a request from the Norman Public School Administration regarding the school location being a viable shelter location in terms of survivability, a team was organized to review three of the shelters and complete the FEMA 361 checklist (FEMA 361 is Design and Construction for Community Safe Rooms). On August 19, 2009, a team consisting of Bob Hanger, City of Norman Permit Manager, Delbert Potts, Norman Public Schools, Director of Central Services, Chief Bailey, Norman Fire Department and David Grizzle, the Emergency Management Coordinator, utilized the FEMA 361 July 2000 Edition One Appendix B Wind Hazard Checklist to review Irving Recreation Center, Whittier Recreation Center and Cleveland Elementary School.

Based on the evaluation checklist from FEMA 361, Irving Recreation Center received a score of 123, Whittier received a score of 121 and Cleveland received a score of 109. No flood plain information was found to be applicable to these reviews. In reviewing the checklist instructions from appendix B, it indicates the low scores on the checklists indicate structural features that provide some level of protection. The higher the score the more vulnerable the structure is to wind damage. Oklahoma is listed in the FEMA 361 as located in the FEMA Wind Zone of ZONE IV (appendix b, pg 16). The lowest score possible for a ZONE IV structure is 20. Accordingly, appendix B indicates that it is unlikely that any building, even one with an engineered storm shelter would have this score.

Calculating the highest possible score from the checklist, without using the flood plain information it is 295. By percentage Irving Recreation Center is 41.7% of the highest score, Whittier Recreation Center is 41% of the highest score and Cleveland Elementary is 36.95% of the highest score. Based on these numeric ratings the shelters would provide some protection from high wind events.

As a comparison, the high wind checklist was forwarded to several individuals and asked they conduct the assessment on their homes. The scores returned ranged from 95 to 165 in single-family dwellings. A review of this information supported the Sheltering in Place concept promoted by the Federal Emergency Management Agency, the Red Cross and many other federal agencies. The danger of injury to citizens leaving a shelter to go to a shelter is very high.

In regard to any information on guidance regarding sheltering for apartment or mobile home residents, most of the Red Cross and FEMA literature discusses how families should make their plan and in the case of inclement weather, the need to leave the area and seek suitable shelter well before the storm arrives. In general, it is not advised to shelter in place in a mobile home. A survey of local mobile home communities indicates few have a shelter none have a shelter that is not designed to support the entire park community. There are no apartment complexes that have a distinct community shelter constructed to meet FEMA standards.

A review of the shelter reports for the five-year period of 2005-2010 indicates the average number of openings per year is five with an average occupancy by shelter of Cleveland 14, Whittier 13 and Irving 9. The three-year period of 2011-2013 had an average of four openings per year with an average occupancy of Cleveland 95, Whittier 36 and Irving 48. These numbers are estimates due to facility occupancy prior to the shelter activation and the inability to accurately count occupants when the buildings reach capacity levels. It should be recognized that often the shelter occupancy level is zero and that these averages are driven by peak events.

Further, when opening the shelters, the Norman Fire Department does not have the capability of screening citizens for situations such as special needs, service animal verification or identification of registered sex offenders.

Currently these locations are utilized by the City of Norman during times of anticipated severe weather. These shelters are intended to provide protection during a short-term high wind event. They are not recovery shelters intended to provide services and housing for people whose homes have been damaged or destroyed by fires, disasters, or catastrophes.

In reviewing guidance and opinions from various State and Federal contacts, the Cities intent of operating a shelter only for a short-term event is irrelevant as to the applicability of the ADA, the PETS Act legislation, NFPA Life Safety Code or the requirement to screen for sex offenders. In short, if the jurisdiction has determined they will operate a shelter for any purpose for any length of time then all the planning factors and requirements of these legislative acts apply.

For the purpose of this memo, detailed information was not compiled as to the extent of the cost in rehabilitating the facilities to comply with the ADA, the PETS Act and other facility needs. In general, the costs would be focused at providing compliant ramps, railings, and restroom facilities. Support for pets and service animals, as well as, auxiliary aids or services for citizens needing such items, would need to be identified. Consideration would also be given to provide for segregating special medical needs or sex offenders.

**Current Public Shelter Status:**

In February 2013, the City Council provided direction to cease operating the public shelters effective July 1, 2013. Steps have been taken to end this program including a press release resulting in a front-page article in the Norman Transcript as well as other media attention.

**REFERENCES:**

The Americans with Disabilities Act, 1990 as amended (ADA)  
<http://www.ada.gov/pubs/ada.htm>

Pets Evacuation and Transportation Standards Act of 2006 (PETS Act)  
[http://www.avma.org/disaster/petsact\\_faq.asp](http://www.avma.org/disaster/petsact_faq.asp)

FEMA 361: Design and Construction Guidance for Community Safe Rooms  
<http://www.fema.gov/plan/prevent/saferoom/fema361.shtm>



# Central Oklahoma Emergency Management Association Regional Outdoor Warning System Guidelines



## Purpose

A responsibility of Emergency Management is to warn the public of approaching or existing hazardous conditions, which require immediate protective actions in order to save lives and reduce injuries. Outdoor Warning Systems (OWS) are but one method to warn the public. Almost all local jurisdictions have some form of OWS. The purpose of these guidelines is the coordination of the activation, operation, and testing of these systems between Central Oklahoma jurisdictions, which will be more effective and efficient, and benefit the public. These guidelines address the expected public action upon activation of the OWS.

## Outdoor Warning System (OWS)

An Outdoor Warning System (OWS) consists of sirens designed to alert citizens of approaching and existing hazardous conditions, which require immediate protective actions in order to save lives and reduce injuries. While these systems have been commonly referred to as “tornado sirens,” this term fails to acknowledge all applications of the OWS. By agreement, Central Oklahoma Emergency Management Directors shall refer to these sirens as an “Outdoor Warning System” to reinforce the multiple hazardous conditions for which communities may sound sirens to alert citizens in outdoor areas.

Outdoor Warning Systems are designed to alert citizens who are outside or outdoors; they are not designed to penetrate buildings and warn those inside structures. Citizens should not mistakenly wait to hear a siren as their only source of warning information. A National Oceanic and Atmospheric Administration (NOAA) All-Hazards Radio with Specific Area Message Encoding (SAME) technology is a good method of receiving warning messages indoors. Additionally, warnings can be received from radio, television, subscription services (that use text messages, e-mails, and telephone messages), social media, and other available sources.

## Expected Public Action Upon Activation

When a local jurisdiction’s Outdoor Warning System is activated, the public should “Take Shelter and Seek More Information.” Taking shelter is a personal decision and responsibility and may include moving indoors into a sturdy structure, going to a safe room or into a storm shelter. Seeking more information may include looking at or listening to various electronic media to learn the nature of the hazard or threat, its location, and timing as to impacting their community. Citizens, once they have received more information, can make informed decisions on what further protective measures to take.

No local jurisdiction issues an “All Clear” signal. Citizens must remain aware of their environment and situation to know when the threat no longer exists by monitoring their NOAA All Hazards Alert Weather Radio, television, radio, subscription services that use text messages, e-mails, telephone messages, social media, and other available sources.

## Activation Guidelines

Each local jurisdiction determines when to activate their Outdoor Warning System, based on a validated imminent threat, considering the following factors:

- National Weather Service (NWS) Tornado Warning
- Credible report of tornadic conditions
- Location of the hazard or threat
- Timing of the hazard or threat



## Central Oklahoma Emergency Management Association Regional Outdoor Warning System Guidelines



Each local jurisdiction will activate their Outdoor Warning System based on circumstances and system capabilities to warn the threatened population. A jurisdiction may activate their Outdoor Warning System more than once during an event as new or additional threats are identified or move into or across their jurisdiction.

No local jurisdiction will issue an “All Clear” signal.

### **Local Option**

Each local jurisdiction retains the option to activate their Outdoor Warning System for other hazardous conditions or threats that pose an immediately significant threat to life safety and may impact their community. Some examples of this Local Option would be: potential dam breaches, wildland fires, hazardous material incidents, or enemy attack. This is known as the “Local Option.” Activation of a local jurisdiction’s OWS under the Local Option may involve the use of a different siren tone, use of their OWS public address (voice message) capability; or both depending on the situation. Local Option activation of an OWS should immediately be followed with additional information given to the community regarding hazard or threat and the appropriate protective measures. A local jurisdiction with other types of warning or notification systems may use those systems to distribute warnings at the same time as their OWS activation.

### **Testing**

All jurisdictions audibly test their Outdoor Warning System at least once per month on Saturday at noon.

The Saturday test of the OWS may be suspended for the following reasons:

- When the National Weather Service has issued a Severe Thunderstorm/Tornado Watch or Warning for the Central Oklahoma region
- Imminent threat of severe weather
- Freezing temperature below 32 degrees F
- Requests to not sound the system because of large outdoor special events, sporting events or ceremonies

Jurisdictions may conduct a silent test of their OWS at their own discretion.

### **Activation Notification**

A local jurisdiction activating its Outdoor Warning System should make external notifications to neighboring communities as soon as practical indicating their OWS has been activated.

# Severe Weather Preparedness



Presented By: James Fullingim, Fire Chief





# Severe Weather Preparedness

- What We Have Accomplished
- Regional OWS Policy
- Sheltering
- Possible Next Steps



# What We Have Accomplished

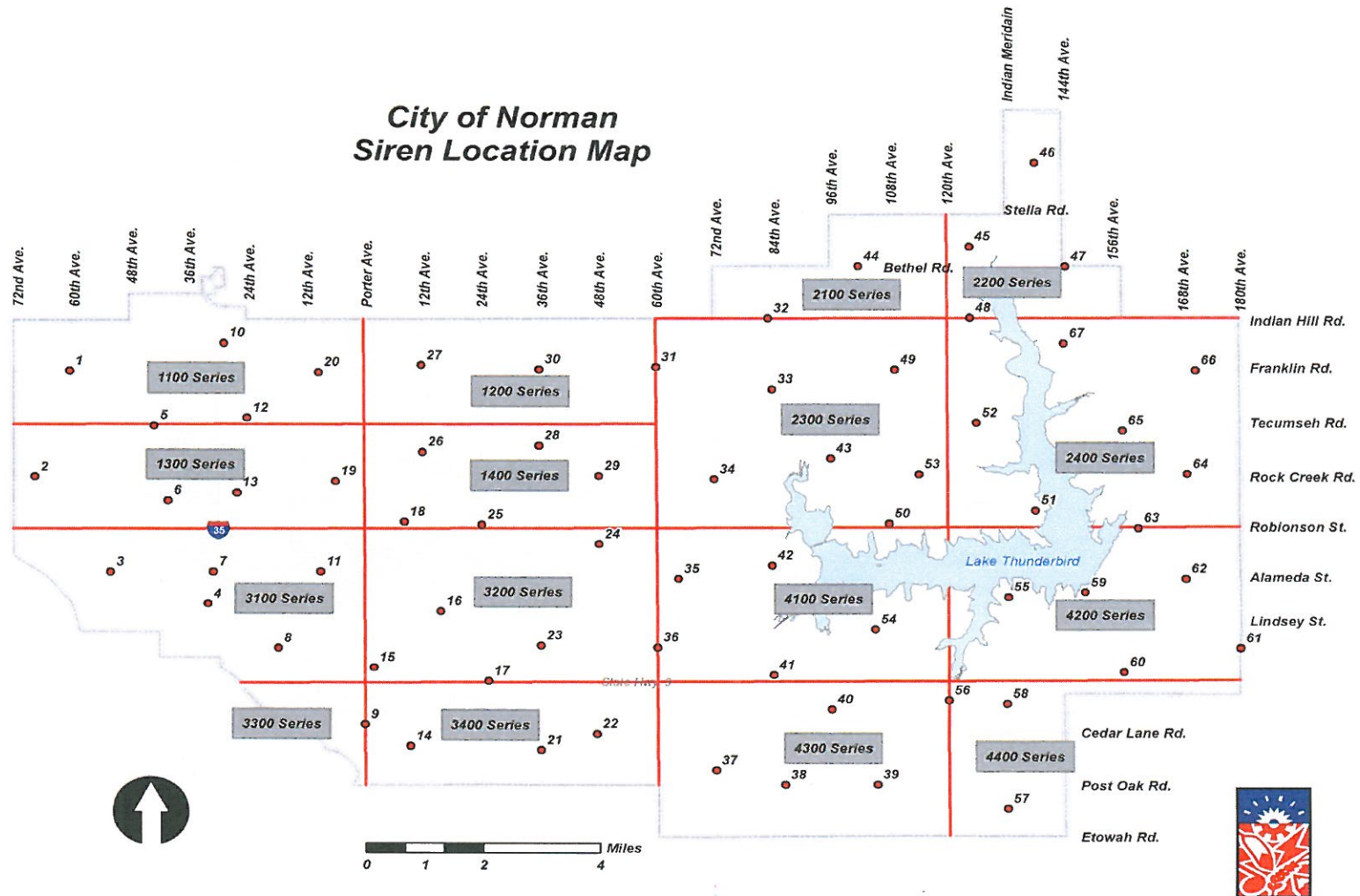
- Community Outreach
  - Presentations
  - Displays at Sooner Fashion Mall
  - Special Events
  - Mobil Home Parks
  - Schools



# What We Have Accomplished

- Discontinued City Sponsored Public Shelters
- Debris Removal Plan and Contact
- Community Volunteer Program
- Administered Safe Room Rebates

# What We Have Accomplished



# OWS Regional Policy Participants



- Norman
- Canadian County
- Del City
- Edmond
- Midwest City
- Moore
- Oklahoma City
- Oklahoma County
- Yukon



# Regional Activation Criteria

- Each local jurisdiction determines when to activate their Outdoor Warning System, based on a validated imminent threat, considering the following factors:
  - National Weather Service (NWS) Tornado Warning
  - Cr dible report of tornadic conditions
  - Location of the hazard or threat
  - Timing of the hazard or threat
  
- A jurisdiction may activate their Outdoor Warning System more than once during an event as new or additional threats are identified or move into or across their jurisdiction
  
- No local jurisdiction will issue an “All Clear” signal.
  
- **Local Option** – activate Outdoor Warning System for other hazardous conditions or threats that pose an immediate threat to life safety
  - Each local jurisdiction retains the option to activate their Outdoor Warning System for other hazardous conditions or threats that pose an immediate significant threat to life safety.



# Expected Public Action

- Take shelter and seek more information
- Enact your personal plan based on anticipated conditions
- Go to a City sponsored Storm Shelter?

# Background



- City of Norman Emergency Operations Plan contains public shelter locations
- The Fire Department opens and staffs shelters
- Central Oklahoma Emergency Managers discourage public shelters







# Oklahoma Communities Providing Shelters

## Cities Sponsoring Shelters

- Shawnee (under-ground)
- Newcastle (FEMA)

- Norman?

## Cities NOT Sponsoring Shelters

- Moore
- Oklahoma City
- Edmond
- Lawton
- Stillwater
- Noble
- Yukon
- Mustang
- Midwest City
- Del City
- Tulsa
- Broken Arrow
- Jenks



# Shelter Activation Decision



- Emergency Management activates
- Uses information from multiple sources including National Weather service
- Shelters are opened if tornadic activity is anticipated to threaten any portion of the City of Norman within one hour

# Considerations



- Average lead time for tornadoes is ~15 min
- Responsibility
- Low wind rated designated facilities
- Travel to public shelters places people at risk

# Shelter Rules



1. For public Health reasons pets or animals may not be brought into the facility. All available space is needed to shelter people; animals may cause problems for those with allergies or other medical conditions. Service animals will be allowed after valid demonstration of provided service.
2. No alcohol or intoxicated persons will be permitted.
3. No smoking is allowed on facility property.
4. No firearms or weapons.
5. Those that use the shelter will be expected to be respectful of others in the shelter.
6. Those that use the shelter will be expected to respect and take care of the facility.
7. No loitering outside the shelter. Those who use the shelter will be expected to remain inside the shelter until the danger has passed.
8. Those who do not follow these rules/regulations will be asked to leave the premises.

# Residential Shelters



- Grant Status
- Registration
- Future grant availability
- Mobile home parks
- Apartments



# Possible Next Steps

- Sheltering Resolution
- Inter-governmental Relations
- Fund initiatives
- Participate in supporting individual responsibility
- Lobbying for State and Federal mitigation programs
- Ordinances
  - Code changes to include wind resistive construction
  - Determine rebuilding standards
  - Require private shelters