

# **NEWARN Tabletop Exercise**

## **Norfolk, Nebraska**



**August 21, 2012**

### **Participant Situation Manual**

**Sponsored by: U.S. EPA and NEWARN**

**Facilitated by: The Horsley Witten Group, Inc.**

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# EXERCISE SCHEDULE – AUGUST 21, 2012

1:00 p.m. – Tabletop Exercise Overview, Objectives, and Ground Rules

- Purpose and Objectives
- Roles of Participants

1:15 p.m. – Scenario Discussion

2:30 p.m. – Break

2:45 p.m. – Scenario Discussion

3:30 p.m. – Improvement Planning Session

- Highlight key elements raised during the TTX

4:00 p.m. – “Hot Wash” Session

- Discuss participant lessons learned during the TTX

4:30 p.m. – Evaluations and Closing

- Discuss the After Action Report (AAR) and the implementation of improvement planning

5:00 p.m. – Adjourn

# INTRODUCTION

## *Purpose of the Exercise*

The primary purpose of this tabletop exercise (TTX) is to enhance the ability of the Nebraska Water and Wastewater Agency Response Network (NEWARN), member utilities and stakeholders, and local and state agencies to effectively prepare for, manage, and respond to water infrastructure consequences resulting from a regional tornado outbreak incident.

## *Scope of the Exercise*

This exercise emphasizes the roles, responsibilities, and relationships of the NEWARN, member utilities, and other stakeholders during a response to drinking water and wastewater-related consequences resulting from a tornado outbreak. Although the scenario focuses on a regional tornado outbreak incident, plans, policies, and procedures should be assessed from an all-hazards perspective.

## *Exercise Structure*

This will be a multimedia, facilitated TTX. The exercise begins with a scenario narrative presented to the audience by an exercise facilitator. The scenario, which is built through injects, provides the backdrop that drives participant discussion. Following the scenario narrative, a facilitator will guide participants through a discussion period allowing utilities and their response partners to describe their actions, decisions, and notifications as necessitated by the situation or change in resource status. Participants are encouraged to ask questions of other participants. Immediately following the discussion period, the facilitator will lead an improvement planning session among participants to highlight key elements discussed during the TTX. This will be followed by a “hot wash” session where participants will provide their personal lessons learned.

### *Capabilities, Tasks, and Objectives*

The primary objectives of this TTX include:

- Involve a large number of NEWARN members and attract non-members.
- Highlight the importance of and encourage members to add their resources to the online database.
- Demonstrate the importance of using the NEWARN website to formalize their communication during an incident/event.
- Strengthen the relationship between NEWARN, state, and local emergency management agencies.

### *Participating Organizations*

Participants of the tabletop exercise will include response partners from the following agencies:

- NEWARN Steering Committee;
- NEWARN members;
- Non-NEWARN member utilities;
- Nebraska Emergency Management Agency (NEMA);
- Nebraska Department of Health and Human Services (DHHS); and
- Local, state and federal agencies and the private sector.

### *Participant Roles and Responsibilities*

**Players** respond to the situation presented based on expert knowledge of response procedures, current plans and policies, and insights derived from training and experience.

**Facilitators** lead the exercise by presenting the scenario narrative and facilitating the discussion period, the improvement planning session, and hot wash. They also provide additional information or resolve questions as required. Key planning team members may also assist with facilitation as Subject Matter Experts (SMEs) during the discussion.

**Recorders** document participant discussions.

**Observers** may provide insight into programs, policies, and procedures, but do not participate in the facilitated discussion period.

### ***Exercise Assumptions and Artificialities***

In any TTX, a number of assumptions and artificialities may be necessary to complete the exercise in the time allotted. Participation in the discussion is in accordance with the assumptions and guidelines below:

- The scenario is plausible, and events occur as presented;
- There are no “hidden agendas” or trick questions; and
- All participants receive information at the same time.

### ***Exercise Rules of Conduct***

A successful TTX also depends on the rules listed below, which have been proven to ensure effective discussion.

- There is no single solution.
- Varying viewpoints, even disagreements, are expected.
- Dialogue is encouraged within a safe, open, and stress-free environment.
- Respond based on your knowledge.
- Your organization’s positions or policies do not limit you.
- Make your best decision based on the circumstances presented.
- Assume cooperation and support from other responders and agencies.
- The basis for discussion consists of scenario narratives, your experience, understanding, and intuition.
- All information required to drive discussion during the TTX is contained in the exercise material or injects.
- Treat the scenario as if it might affect your area.
- Don’t “fight” the scenario.

# BACKGROUND INFORMATION – TORNADOES IN NEBRASKA

Nebraska is located in the middle of “Tornado Alley” and tornado season is loosely classified as lasting from late spring to early fall. Statistically speaking, Tornado Alley sees tornadoes more frequently than anywhere in the world. Nearly all tornadoes reported in the United States are considered to be relatively small and short lived — 95 percent of all tornadoes produce winds less than 100 mph (equivalent to an F/EF 1 tornado) and last only five to 20 minutes, causing few if any fatalities.

The classification of a tornado’s intensity based on wind estimates was originally measured based on the Fujita Scale and since 2007 by the Enhanced Fujita (EF) scale as shown below in the table from the NOAA Storm Prediction Center.

Fujita Scale		Derived EF Scale	
F Number	3 Second Gust (mph)	EF Number	3 Second Gust (mph)
0	40-72	0	65-85
1	73-112	1	86-109
2	113-157	2	110-137
3	158-207	3	138-167
4	208-260	4	168-199
5	261-318	5	200-234

The deadliest tornado to affect the United States was the 1925 “Tri-State Tornado,” a category F5 tornado, with winds estimated at over 250 mph, that ravaged through Missouri, Illinois and Indiana, and caused 695 deaths. The deadliest tornado outbreak to affect Nebraska was the March 23, 1913 “Easter Sunday” tornado which killed over 150 people in Omaha and areas of eastern Nebraska. However, this is the only outbreak in Nebraska history to have killed more than 100 people; and since 1953, there has not been a tornado that has killed over 10 people.

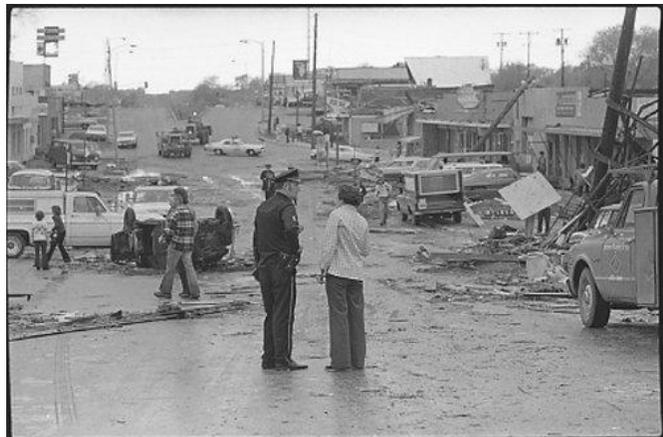
The historical record shows that tornadoes have occurred in Nebraska in every month of the year, but May and June are by far the most likely months.

Tornado outbreaks can have devastating effects on the water sector including:

- Power outages;
- Loss of communication;
- Destruction of facilities;
- Low pressure due to broken water mains;
- Impacts to the collection system;
- Potential contamination; and
- Lack of staff available due to themselves being victims of the incident.

## **Tornado Outbreak – May 6, 1975**

During the early afternoon of May 6, 1975, a tornado watch was issued for much of eastern Nebraska. Initial tornado activity started in northeast Nebraska throughout the first half of the afternoon and at around 4:15 p.m., a tornado warning was issued for the Omaha area. A F4 tornado touched down about 15 minutes later in Sarpy County and the storm then moved north-east, cutting into Douglas County. It



crossed Interstate 80 (injured several motorists) and through west-central sections of the city of Omaha. The tornado cut a path across ten miles of the city.

Three people were killed and 133 reported injured in Omaha. Over 4,000 buildings were damaged, with 287 totally destroyed. This tornado was just one of over 36 tornadoes which touched down as part of a two-day outbreak that struck the Midwest and Southern United States on May 6–7, 1975.

At the time, it was one the costliest tornados in American history with insurance costs estimated at up to \$1.1 billion (in 1975 dollars). To this day, it remains the third costliest tornado, behind the Oklahoma City area F5 tornado on May 3, 1999 and the Wichita Falls, Texas tornadoes on April 10, 1979.

## **Tornado Outbreak – May 22, 2004**

On May 22, 2004, a large tornado hit the small Nebraska town of Hallam, damaging about 95% of its buildings. Luckily, although the town received major damage, there was only one fatality reported. The National Weather Service did a survey and determined that the F4 tornado was 2.5 miles across at its widest point, which likely makes it the widest tornado ever recorded. This tornado was just one of a reported 56 tornadoes that touched down in several Midwestern U.S. states on the evening of May 22<sup>nd</sup>.



## Sources and Additional Information:

**Tornado Information** <http://www.nssl.noaa.gov/edu/safety/tornadoguide.html> (Source: NOAA)

### U.S. Tornado Climatology

<http://www.ncdc.noaa.gov/oa/climate/severeweather/tornadoes.html> (Source: National Climatic Data Center.)

**Online Tornado FAQ** <http://www.spc.noaa.gov/faq/tornado/> (Source: NOAA.)

**Severe Storms – A Guide to Survival** <http://www.nema.ne.gov/response-recovery/severe-storm-guide.html> (Source: NEMA)

**Tornadoes** <http://www.epa.gov/naturalevents/tornadoes.html> (Source: U.S. EPA)

**Tornadoes: Are You Ready?** <http://www.fema.gov/areyouready/tornadoes.shtm> (Source: FEMA)

**Tornado Awareness – A Guide to Survival** <http://lancaster.ne.gov/emergency/tornado.htm>  
(Lancaster County Emergency Management)

### Tornado Emergency Preparedness and Response

<http://emergency.cdc.gov/disasters/tornadoes/> (Source: CDC)

**Tornado Statistics** <http://stormhorizon.org/Nebraska-Tornado-Facts.html> (Source: University of Nebraska – Lincoln)

# SCENARIO

## Saturday September 7<sup>th</sup>

The spring and summer have been very active with numerous tornadoes occurring across the state. The peak of tornado season has passed, and the month of August has been very quiet. At 11:00 a.m., on Saturday, September 7<sup>th</sup>, the NOAA Storm Prediction Center issues a tornado watch for most of southwestern and central Nebraska for the afternoon and early evening. Forecasters are predicting that daytime temperatures could rise to the upper 80's.



# APPENDIX 1: SUPPORTING DOCUMENTS AND REFERENCES

## Appendix 1.1: Improvement Planning Matrix

# APPENDIX 1.1: IMPROVEMENT PLANNING MATRIX







**NEWARN Workshop and Tabletop Exercise – Participant Evaluation Form**

August 21, 2012 · Norfolk, Nebraska

**Name** (optional) \_\_\_\_\_ **Organization** (optional) \_\_\_\_\_

**Position/Title** \_\_\_\_\_

1. The workshop and Tabletop Exercise (TTX) were well structured and organized.

Strongly Disagree		Agree		Strongly Agree
1	2	3	4	5

2. The TTX helped to define the roles and responsibilities of NEWARN in regards to resource management during an incident affecting the water sector.

Strongly Disagree		Agree		Strongly Agree
1	2	3	4	5

3. The workshop and TTX provided an opportunity to introduce NEWARN to prospective members.

Strongly Disagree		Agree		Strongly Agree
1	2	3	4	5

4. The TTX helped strengthen and refine the relationship between NEWARN and emergency management.

Strongly Disagree		Agree		Strongly Agree
1	2	3	4	5

5. The workshop and TTX highlighted the importance of adding resources to the online NEWARN database.

Strongly Disagree		Agree		Strongly Agree
1	2	3	4	5

6. The workshop and TTX demonstrated the importance of formalizing communications during an incident/event.

Strongly Disagree		Agree		Strongly Agree
1	2	3	4	5

7. The TTX provided an opportunity to identify potential gaps in planning at your own agency.

Strongly Disagree		Agree		Strongly Agree
1	2	3	4	5

8. Overall, the workshop and TTX were a valuable use of my time.

Strongly Disagree		Agree		Strongly Agree
1	2	3	4	5

Additional Comments:

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