

Flood Scenario Worksheet

Scenario adapted from:

<http://www.epa.gov/watersecurity/tools/trainingcd/Simple/Source/Scenario-8/SSc8-0.pdf>
Simple Tabletop Exercise, Interdependency – Natural Disaster Scenario, Scenario #8

Exercise Objectives:

1. Evaluate alternatives when daily infrastructure systems fail.
2. Consider how utilities and other infrastructures are inter-dependent.
3. Explore public notification mechanisms.
4. Develop a list of planning goals and potential actions to guide a community's response to the disaster.

Scenario Summary

Background

It is March in Thomasville and the residents are experiencing a cold spring. Thomasville is a community of roughly 18,000 people located in a small valley with a blue line creek running through a portion of the downtown. Several small crop and livestock farms surround the community and a large county park offering camping and hiking trails is about three miles outside the city limits. It has been 30 years since the community last experienced a flood.

Thomasville has grown by about 2,000 people over the last two decades and most of the new residential development has occurred along the north/south two-lane state road that parallels the creek that winds through the valley. Thomasville has its own water treatment and sewage plant; a fire department with two stations and eight full-time and 24 volunteer firemen; and a police department with six sworn officers. Thomasville also has access to the county sheriff's department and two state highway officers. There are three ways to get in and out of Thomasville: the north/south two-lane state road, a two-lane east/west county road that connects to a four-lane state highway four miles from town, and an intersecting county road that also moves traffic from east to west. There are a variety of city streets and smaller county roads throughout Thomasville and its surrounding area. The town has a local radio station but the TV station is regional and comes from a larger city about 80 miles away.

The Event

Early in the morning of March 15th, the National Weather Service Doppler radar indicates that thunderstorms producing heavy rainfall and damaging winds in excess of 60 mph are headed towards Thomasville. By 9:00 a.m. that day, runoff from the heavy rain begins to flood low-lying areas in Thomasville and the wind downs power lines, causing power outages throughout the city. By 5:00 p.m., the normally quiet creek has crested its bank, causing more flooding. The strong winds continue to knock down more power lines. There are reports that in some areas of Thomasville, people are trapped in their businesses and homes, many streets and roads are flooded, and there is concern for several homes that are located on a steep slope to the west of Thomasville.

The Results

Roads are closed, and the bridge that links the northern and southern parts of Thomasville has been washed out. The power is out in many areas across the community. The water and wastewater treatment plants are running on back-up power generators. The elementary and middle schools have decided to keep students at the schools because of concerns about bus safety and the high school students who attend the county high school will not have access to county buses to return home.

My Role: _____

Starting Points

1. What will likely be the priorities and primary concerns of the person you are representing?

2. How will the person you represent view their priorities and concerns related to concerns of other characters? Think about this in terms of your character’s formal/organizational role as well as any other roles that might be of significance.

3. How likely is it that you have met or interacted with the other characters? How might this influence the way your character works with the others?

Scenario Opening Situation

9:00 a.m., March 15:

A news station reports there are major flooding and power outages throughout the city.

1. What is the command structure needed to deal with a natural disaster such as this? Who is in charge?
2. How well are utilities prepared for severe weather and power outages?
3. How often and for how long are backup generators tested?
4. What might be a goal(s) for your strategic plan based on the discussion to this point?

Flood Scenario Additional Challenges

9:35 a.m., March 15:

A phone call from the wastewater treatment plant (WWTP) superintendent to the public works manager is made. The backup generator has just failed at the WWTP, and upon inspection, a new main rotor is required. He will put a call in to the supplier. In the meantime, the equalization basin is starting to become full and raw sewage will need to be discharged to the creek.

1. When is the proper time to inform the public, and what is the best way to get the word out?
2. What might be some goals for your strategic plan based on the discussion to this point?

10:20 a.m., March 15:

A police officer calls the water superintendent to let them know that he received a radio call from an EMS worker reporting that Thomasville Hospital was quickly losing water pressure. He also informs the water treatment plant that the same EMS worker also noticed water was gushing out of a pipe under the Congress Street Bridge.

1. What options do the community and the hospital have for restoring water service or insuring access to safe water?
2. In light of the power and phone outages, how will the utility notify customers in the affected area?
3. What might be some goals for your strategic plan based on the discussion to this point?

Noon, March 15:

A news station reports that additional flooding and power outages continue to plague the city. At this time, police are evacuating residents from flooded areas to designated shelters.

1. How should the evacuation be coordinated?
2. Where should the shelter locations be?
3. What routes should people take to the shelter locations?
4. Do the new areas of flooding and power outages present more concerns for the utilities?
5. What might be some goals for your strategic plan based on the discussion to this point?

1:00 p.m., March 15:

The Thomasville Hospital notifies the local EMS that the hospital can no longer accept patients. They will need to redirect incoming ambulances to other hospitals, and they require help in coordinating the patient transfers. They are uncertain of road closures.

1. How should patients be transferred, since many routes to an alternate hospital are flooded?
2. Does the public need to be informed of the closing of Thomasville Hospital to new patients and the transfer of their patients to a regional hospital? If so, how would this notification be done?
3. What might be some goals for your strategic plan based on the discussion to this point?

Thomasville, USA

