

Activity 2.1 (cont'd)

Worksheets

| Matrix 1--Hazard Identification | | |
|----------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| List 5 possible hazards. | What is the probability of an event occurring at this hazard? | What is your best estimate of the total population that could be affected seriously by this hazard? Consider peak population if appropriate. |
| 1. | 1. Unlikely 2. Possible 3. Likely | _____ Enter a number |
| 2. | 1. Unlikely 2. Possible 3. Likely | _____ Enter a number |
| 3. | 1. Unlikely 2. Possible 3. Likely | _____ Enter a number |
| 4. | 1. Unlikely 2. Possible 3. Likely | _____ Enter a number |
| 5. | 1. Unlikely 2. Possible 3. Likely | _____ Enter a number |

ASSESSING COMMUNITY RISK

| Matrix 2--Vulnerability Assessment | | | | | |
|------------------------------------------------------------------------|----------|----------|----------|----------|----------|
| | 1 | 2 | 3 | 4 | 5 |
| HAZARDS List hazards | | | | | |
| Impact Rating | | | | | |
| Danger/Destruction/Personal Harm (High=3; Moderate=2; Low=1) | | | | | |
| Economic (Permanent=3; Temporary=2; Immediate short term=1) | | | | | |
| Environmental (High=3; Moderate=2; Low=1) | | | | | |
| Social (High=3; Moderate=2; Low=1) | | | | | |
| Political Planning Level (Local=1; Regional=2; Federal=3) | | | | | |
| Total Vulnerability Rating (Sum of all factors) | | | | | |
| RANK LOW = 5 to 8 MODERATE = 9 to 11 HIGH = 12 to 15 | | | | | |

ASSESSING COMMUNITY RISK

| Matrix 3--Risk Rating | | | | | | | |
|------------------------------|---------------------------|-----------------|-----------------|---------------|-----------------|------------|-----------------------------------------|
| | Probability of Occurrence | | | Vulnerability | | | Risk |
| | Likely (3) | Possible (2) | Unlikely (1) | High (3) | Moderate (2) | Low (1) | Rating (probability x vulnerability) |
| List 5 Hazards | | | | | | | |
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Risk Analysis Explanation

What is the probability that an event in this hazard will occur? (Frequency)

- Low hazard is **unlikely** to occur or to affect the community.
- Moderate hazard is somewhat likely (**possible**) to occur or to affect the community.
- High hazard is **likely** to occur or recur and to affect the community.

Assessing Vulnerability

Vulnerability and its relationship to overall community risk emphasizes that each risk must be viewed from the community's vulnerability.

Vulnerability is the susceptibility to suffer harm or loss from an event.

1. Vulnerability may vary based on numerous factors such as preparedness, capability of emergency services, etc.
2. Vulnerability may also vary for the same hazard from area to area in the same community.

There are five areas of vulnerability in a community:

- **Human vulnerability** includes the cost in personal injury and death due to an event. This could also include displacement from the community and human suffering.
- **Economic vulnerability** includes the cost to provide emergency services, the cost to replace or repair damaged property, the availability and cost of insurance, lost tax revenue, lost wages, the cost of business interruption, and medical costs, both short and long term.
- **Social vulnerability** is the potential for an event to have a negative effect on the social fabric of a community.
 - For example, frequent crimes against persons or property can cause people in certain areas of the community to feel unsafe.
 - An event that requires the evacuation of portions of a community creates the need for shelters and can cause major disruptions in the daily lives of people
 - Additionally, an event like Columbine can result in the long term need for additional mental health and social services.
- **Political vulnerability**
 - The Station Night Club resulted in sweeping changes in the fire and building codes in Rhode Island and a number of other states as well.
 - Unfortunately, someone usually has to die in order for change to occur. For example, a traffic control device is rarely installed at an intersection until enough serious vehicle crashes occur.
- **Environmental vulnerability**
 - An event may cause temporary or permanent damage to the environment within a community.
 - A severe drought or a hailstorm can damage or destroy crops and/or livestock; floods and mudslides can permanently alter the terrain; or a wildfire can destroy an entire forest.

NOTE:

These can be confusing but try to understand the idea of each of these vulnerabilities and determine the parameters that you will use determine what a rating of 1, 2 or 3 will be in each category based on an interpretation of the definitions above. Most importantly is to be consistent once these parameters are established.

