

Hazard Identification and Hazard Assessment

Hazard Identification and Hazard Assessment represents comprehensive research of past and potential hazards affecting Summit County. The Hazard Prevention Sub-Committee has identified 14 hazards as being the most likely disasters to affect Summit County. Historical data, census data and a community profile were assembled by Summit County Emergency Management to aid the committee in performing a Hazard Assessment of the identified hazards. The attached information, discussion among subcommittee members, and their own expertise and knowledge of Summit County lead to the resulting analysis of Summit County's Hazards. It is the sub-committee's goal to narrow the number of hazards, based on the analysis, in an effort to focus on hazard prevention strategies.

Hazard Identification

A list of 14 hazards have been identified and approved by the sub-committee as being the most likely hazards to affect the county. However, the sub-committee recognizes that there is the potential for unforeseen hazards that may need to be added to this document. It is the sub-committee's intention that this plan remain a living document that can evolve as time goes on. The purpose of the Hazard Identification is to provide a framework for developing the rest of the hazard assessment. The hazard identification takes into account that a hazard is:

“...any actual or imminent threat to the survival or overall health, safety, or welfare of the civilian population, that is caused by any natural, man-made, or technological event.”

The Hazard Identification for Summit County has been based on the hazards that could affect all or parts of Summit County. The results of this identification were used as the basis for developing the Historic Hazard Profile and Risk Assessment.

A.) Civil Disturbances could not only affect the county, but would probably be limited to the more populated cities and The University of Akron. Nationally, the greatest number of disturbances emerge from strikes but could also include labor disputes, riots, sabotage, and vandalism. Civil Disturbances result in the disruption of civil order and peace and require police actions to control or suppress.

B.) Terrorist Incidents are one of the concern in the county. They are unpredictable, but would most likely effect high visibility targets. Terrorist incidents are a form of violence aimed at a public audience. The Federal Bureau of Investigation defines terrorism as “the unlawful use of force or violence against persons or property to intimidate or coerce a government, civilian population or any segment thereof, in furtherance, of political or social objectives.”

C.) Flood and Dam Failures threaten many political subdivisions in the county.

Summit County is susceptible to three types of floods:

- 1.) Riverine results from the overflow of rivers and streams from rain or meltwater.**
- 2.) Flash Floods result from fast rising streams after heavy rain or snowmelt.**
- 3.) Urban Floods result from the overflow of storm sewers and streets after heavy rainfall.**
- 4.) Dam Failure is a gradual or immediate collapse of a water impounding system, which results in downstream damages. There are (insert number here) Class I dams in Summit County. The failure of a Class I dam**

would result in the probable loss of life and or serious hazard to health, property, high-value industrial or commercial properties, and public utilities. Dams having a storage volume greater than 5,000 acre-feet or a height of more than 60 feet are classified as a Class I dam.

D.) Drought would affect the entire county and could result in water shortages, dangerously high temperatures and agricultural damage and loss. A drought is a prolonged period of abnormally dry weather. Droughts usually occur in the summer months, but could occur at anytime, if the conditions are right. Droughts impact rural and urban areas causing significant social and economic damages.

E.) Earthquakes could affect the entire county, although, at different levels of damage. Earthquakes result from a rapid motion of the ground that includes shaking, faulting, and ground failure. Earthquakes have occurred in Summit County in the past. The United States Geological Survey has determined that Summit County lies within Peak Ground Acceleration (PGA) Zone 2.

F.) Utility Disruptions include:

Utility Disruptions include the loss of gas, oil, electric, water services or communications. Utility disruptions have occurred in the county to varying degrees.

- 1.) Electric utilities can be disrupted by trees falling on power lines, from high winds, and they can break under heavy snow and ice build up.**
- 2.) Pipelines carrying oil and gas could rupture or explode. Experts agree that the greatest risk of this involves farmers or a contractor digging nearby and accidentally striking the line.**
- 3.) Water Shortages could occur in the county, but would not necessarily be countywide. Water shortages may occur as a result of a drought, but may also result from contamination and inadequate means of delivery.**
- 4.) Communications has become increasingly critical to the daily function of many businesses and government. As our society becomes more and more reliant on technology, outages in phone, Internet and emergency communications (9-1-1, etc.) becomes all the more critical.**

G.) Transportation incidents are of a serious nature and could result in long-range effects, especially when Hazardous Materials are involved. Transportation incidents include commercial and private aviation incidents, roadway incidents, and rail traffic incidents, not included in hazardous materials. Fatalities and injuries have a potential to be high, particularly in urban areas. The use of transportation in daily commerce has some inherent risks.

- H.) Winter Storms could affect the entire county at the same time. Winter storms include heavy snow with extreme cold temperatures and ice or a combination of those elements. This type of emergency poses the most difficult response effort because of the road conditions, which impede or prohibit vehicle movement. Severe winter storms are destructive to buildings and utilities and may lead to extensive mass sheltering or statewide response and recovery efforts.**
- I.) Hazardous material incidents could occur anyplace in the county including roadways, storage, and disposal sites. A hazardous material incident is a spill of toxic or noxious material at a fixed site or in a transportation incident.**
- J.) Nuclear attack threat is ever present and the reduction of such threat is dependent upon actions of another country. As long as there are weapons and the capability of delivering those weapons, the threat will remain. Summit County has been designated as a risk area.**
- K.) Tornadoes and severe storms could occur anyplace in the county at anytime of the year with the most likely occurrence in spring or early summer. Damage and loss of life could be severe and overwhelm the ability of local responders to address the emergency. The impact can be unpredictable, sudden, and severe.**

Some storms are not officially classified as tornadoes, but can be severe with damaging consequences. The potential for loss of life and property damage is high. The ability to overwhelm most response capabilities is ever present. Storms that involve lightning and hail add a greater degree of potential damage.

Tornadoes are violently rotating columns of air in contact with the ground, which descends from the base of a severe thunderstorm. They are of varying sizes and can obtain wind speeds of 300 mph.

- L.) Wildfires and structural fires pose a threat in Summit County.**

Structural fires are those associated with the burning of residential and commercial building. This hazard poses the greatest threat in the county to urban areas where many buildings are located in close proximity to each other and a majority of the population live and work.

A wildfire is an uncontrolled burning of forests, farm, and wastelands. Wildfires can cause secondary effects, such as air pollution, and both environmental and health impacts. The largest threat of wildfire in the county is the Cuyahoga Valley National Park, which spans 32,860 acres.

M.) Subsidence and landslides are possible in Summit County due to several abandoned mines that exist in the county. The possibility of landslides also exists in hilly areas and along riverbanks throughout the county. Urban expansion and new highway construction, without careful planning, increases the chance of subsidence and landslides.

N.) Infectious Diseases can be a major public health concern because of the severity of disease or potential for epidemic spread, which may indicate a newly recognized infectious agent, an outbreak, epidemic, related public health hazard or act of bio-terrorism. Infectious diseases are caused by various types of microscopic germs such as viruses, bacteria, parasites, and fungi. These germs cause illnesses that range from the common cold or Flu, to disabling conditions such as Lyme Disease and Polio, to deadly diseases like Hantavirus Infection and AIDS.