Appendix A

Hazard Definitions

Some key definitions used in the hazard analysis process are as follows:

Hazard: An event or physical condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, damage to the environment, interruption to business, or other types of harm or loss.

Hazard Analysis: The process of identifying all of the hazards that potentially threaten a community, and analyzing those hazards in the context of the community to determine the degree of threat and resource requirements posed by each.

Hazard Identification: The process of defining and describing a hazard, including its physical characteristics, magnitude and severity, probability and frequency, causative factors, and locations/areas affected.

Risk: The predicted impacts that a hazard would have on people, services, and specific facilities and structures.

Probability: The likelihood, based on history, that an event will occur in any specified period of time.

Predictability: The ease with which an event can be predicted, in terms of time, location, and magnitude.

Controllability: The ease with which the harmful impacts of an event can be controlled.

Cause: The reason(s) why an event occurs. (Is the hazard a primary hazard, or a secondary hazard?)

Speed of Onset/Length of Forewarning: The amount of time it typically takes for an event to occur, and the length of time local governmental agencies typically have to warn the potentially impacted population of appropriate protective actions.

Duration: How long an event can reasonably be expected to last.

Frequency of Occurrence: How often an event is likely to occur.

Exposure: The number, types, qualities, and monetary values of various types of property or infrastructure and life that may be subject to an undesirable or injurious hazard event.

Scope of Impact/Destructive Potential: How bad an event can get, in terms of functional areas impacted, and potential physical destruction of public and private structures.

Probable Spatial Extent: The area that is likely to be affected by an event, based on predominant wind direction and speed, water flow and velocity, geographic/topographic features, etc.

Vulnerability: The quantification of a community's risk to determine which hazards present the greatest risk to people, property, and essential services.

Mitigative Potential: The ease with which measures can be applied to effectively reduce or eliminate long-term risk to people and property from a specific hazard and its impacts.

Sectoring: Dividing a community into geographic sub-parts (sectors) for the purpose of developing a more detailed, targeted hazard analysis and set of mitigation, preparedness, and response and recovery strategies. Sectoring can be accomplished using known geo-political boundaries (i.e., townships in counties), or sectors can be artificially created (i.e., dividing the community into halves or quadrants). *In Alcona County, for the purposes of Hazard Identification and planning, local units of government are the sector sizes.*