

Previous & Prehistoric Earthquakes

Geologists have found liquefaction sites and sand dikes that shows the evidence of prehistoric earthquakes in the region. By examining the size of the dikes and sediment found within the sand dikes, geologists are able to estimate the size of the earthquake it took to create the formations. In the mid-1980's, geologist Steven Obermeier found a liquefaction formation that was estimated, through carbon dating, to be 6,100 years old. The earthquake that produced the site was estimated to be a magnitude 7.1—such an event today would cause widespread damage and disruption within the Wabash Valley Seismic Zone.

Further Research & Information

Current research is still turning out new evidence of historic earthquakes in the zone. For further information on the Wabash Valley Seismic Zone, browse through the links below.

- [Seismic Profiling of Earthquakes in the Wabash Valley Seismic Zone](#) – Indiana Geological Survey
- [Earthquakes in Indiana](#) – Indiana Geological Survey
- [Earthquakes in Illinois](#) – Illinois Geological Survey

M 7.5 Scenario Earthquake - Wabash RLME

- **2017-05-12 18:52:32 (UTC)**
- **38.615°N 87.692°W**
- **20.7 km depth**

A scenario represents one realization of a potential future earthquake by assuming a particular magnitude, location, and fault-rupture geometry and estimating shaking using a variety of strategies.

In planning and coordinating emergency response, utilities, local government, and other organizations are best served by conducting training exercises based on realistic earthquake situations—ones similar to those they are most likely to face. ShakeMap Scenario earthquakes can fill this role. They can also be used to examine exposure of structures, lifelines, utilities, and transportation corridors to specified potential earthquakes.

A ShakeMap earthquake scenario is a predictive ShakeMap with an assumed magnitude and location, and, optionally, specified fault geometry.

[Shakemap Manual](#)

What is MMI?

MMI stands for [Modified Mercalli Intensity](#) and relates to the amount of ground shaking that was caused by an earthquake. The effect of an earthquake on the Earth's surface is called the **intensity**. The intensity scale consists of a series of certain key responses such as people awakening, movement of furniture, damage to chimneys, and finally - total destruction.