

**INDIANA DEPARTMENT OF HOMELAND SECURITY
INDIANA EARTHQUAKE PROGRAM
STRATEGIC PLAN**

The Indiana Department of Homeland Security (**IDHS**) Earthquake Program continually works with all interested parties that include both the public and private sectors on all issues with earthquake mitigation, preparedness, response and recovery. Indiana primarily is vulnerable to earthquakes within the New Madrid Seismic Zone, the Wabash Valley Seismic Zone and the Anna Seismic Zone in Western Ohio. These seismic zones are seismically active, have a history of producing damaging earthquakes and the potential of producing a catastrophic earthquakes. Earthquakes could occur anywhere in the state that has little or no known history or seismic activity. The geologic conditions in Indiana and surrounding states would permit the further transmission of the earthquakes energy. This would result in a multi-state natural disaster that has never been experienced before in Indiana and the Central United States. The goal of this program is to minimize the loss of life and injuries; damage to building inventory; infrastructure and economic impact a damaging earthquake will have on Indiana.

In an ongoing effort this program continuously works within the following four areas:

- 1) *Mitigation***
- 2) *Preparedness***
- 3) *Response***
- 4) *Recovery***

1) *MITIGATION:*

a) *PUBLIC EDUCATION AND AWARENESS*

A key to a successful earthquake mitigation and preparedness program is a good understanding of the seismic hazard and risk to Indiana. This program supports a continuing effort in public education and awareness. This is achieved through presentations, brochures and a video that is in the process of being developed specifically for the earthquake hazard and risk in Indiana. Included with this effort is how to prepare and mitigate for the effects of earthquakes. Target audiences have included the public, local and state government, schools, community-based organizations, and trade groups.

b) *STRUCTURAL AND NON-STRUCTURAL MITIGATION*

This program has worked closely with counties in Southwestern Indiana and IDHS's State Hazard Mitigation Program to perform structural and non-structural mitigation in essential facilities. These projects have included retrofitting the structures of fire stations, and securing non-structural elements in hospitals. These two programs will continue to work together to identify potential projects and funding sources.

c) *BUILDING CODES AND DISASTER RESISTANT CONSTRUCTION*

Will continually work with building commissions and building trade groups to promote use of disaster resistant construction techniques.

d) PLANNING

At every opportunity this program will work with local and state government agencies, private sector and any organization that needs to include planning for any natural or man made disaster. The goal is to promote why earthquake should be included within their planning process. Included is how they will be affected by a seismic event, mitigation and how to respond and move into the recovery phase. Basic Hazards U.S.-Earthquake Module (HAZUS) will play a key roll in the mitigation planning process.

e) SUPPORT FOR MAPPING AND SEISMIC MONITORING

e-1: Mapping

The Indiana Earthquake Program and IDHS's Mitigation Program has been working closely with the Indiana Geological Survey to develop a seismic risk map for the use with mitigation planning and use in HAZUS the GIS based loss estimation tool.

e-2: Seismic Monitoring

This program has worked with Indiana University Department Geological Sciences in promoting the Princeton Earth Physics Program (PEPP) seismic monitoring. PEPP is placed into schools around the state to promote earthquake education. This tool is also beneficial in locating faulting by detecting small earthquakes.

f) THE INDIANA HAZARD MITIGATION COUNCIL (SHMC)

The earthquake program has worked with the SHMC in supporting seismic mitigation projects, and will continue to do so in the future.

2) PREPAREDNESS

a) PLANNING

Will support any preparedness efforts that support any planning that will require earthquake planning.

b) TRAINING

The earthquake program with Purdue University Department of Civil Engineering will support efforts to train engineers, architects and building officials in post disaster building evaluation. The goal is to establish a cadre of qualified volunteer inspectors.

c) EXERCISE

This program will support the IDHS exercise branch in developing exercises related to earthquakes as needed. Will also support any local, state, federal private sector agency, in developing and initiating earthquake exercises.

3) RESPONSE

a) GUIDANCE AND TECHNICAL SUPPORT

This program will work with IDHS directors and staff and other agencies with providing needed guidance and technical support that will aid in the response to this disaster.

b) DISSEMINATION OF INFORMATION TO THE PUBLIC AND MEDIA

The occurrence of an earthquake, even smaller non-damaging events will generate media attention. The earthquake program manager will work with the agencies Public Information Officer (PIO) in dissemination of information to the media and public. This program will work with the PIO's of other agencies such as the Indiana Geological Survey and Indiana University Department of Geological Sciences that information is shared to minimize misinformation being distributed.

c) DAMAGE ASSESSMENT

The IDHS Mitigation and Recovery Division is working with Purdue University Department of Civil Engineering in developing a post disaster building inspection program using a cadre of trained engineers. Once in place, this program will assist the state and local building commissions in performing damage assessments of buildings.

4) RECOVERY

a) GUIDANCE TO LOCAL AND STATE AGENCIES

The recovery from a catastrophic earthquake will likely be a long-term effort. This program will coordinate with all agencies tasked in the recovery effort.

b) IMPLEMENTATION OF MITIGATION

This program will work with state and federal mitigation officers with the implementation of mitigation in the reconstruction of buildings by promoting disaster resistant construction and improving building codes. Also mitigation will be emphasized with infrastructure that includes transportation systems, utilities, and communications.

c) POST EARTHQUAKE STUDIES

The Indiana Earthquake Program will work with agencies such as Indiana Geological Survey and Purdue University Department of Civil Engineering to address the earthquakes impact on buildings, Infrastructure, and other social and economic issues. Lessons learned will assist in the recovery and mitigation.