ABANDONED UNDERGROUND MINE INVENTORY AND RISK ASSESSMENT

POLICY STATEMENT

It will be the policy of the Ohio Department of Transportation to utilize a uniform system for implementing and maintaining a statewide inventory and risk assessment of all roadway sites over and/or adjacent to abandoned underground mines. This work will be performed as documented in the Manual for Abandoned Underground Mine Inventory and Risk Assessment, May 15, 1998 as produced by the Design Resource Section of the Office of Geotechnical Engineering (formerly the Geotechnical Design Section, Office of Materials Management). The Division of Construction Management, Office of Geotechnical Engineering will direct and coordinate the statewide implementation and permanent administration of this policy.

This policy will create uniform statewide information for all roadway sites over and/or adjacent to abandoned underground mines. This information will be utilized by the Department’s Planning, Production, and Highway Management operations as a tool to manage available resources for remediation of prioritized, highest risk roadway sites. The Abandoned Underground Mine Inventory and Risk Assessment (AUMIRA) process shall be integrated into the Project Development Process for existing roadway alignments, existing roadway realignments, new roadway corridors, and other transportation corridors.

AUTHORITY

Sections 5501.02, 5501.03, 5501.11 and 5501.31, Ohio Revised Code (ORC).

REFERENCES

SCOPE

This policy is applicable to all Districts, Regions, Divisions, and Offices of the Ohio Department of Transportation.

BACKGROUND AND PURPOSE

The AUMIRA process involves the gathering and evaluation of information for roadway sites over and/or adjacent to abandoned underground mines. An inventory of sites is established, then sites are evaluated for relative levels of risk. The risk assessment portion of the process considers site conditions and level of the public’s exposure.

The integration of the AUMIRA process into the Project Development Process will provide opportunities for future project savings in the form of time and money. These savings will result from the use of AUMIRA information for the purpose of avoiding or otherwise anticipating locations where problems related to abandoned underground mines may occur. This knowledge will preclude project delays and unanticipated construction items related to unforseen abandoned underground mines beneath the roadway. Most roadway alignments will not change significantly over time. However, due to roadway deterioration and the need to upgrade facilities over time, a periodic need for future maintenance or upgrade projects will continue to occur at most sites documented in the AUMIRA statewide database. Therefore the information established through the AUMIRA database has the potential to provide repeating instances of future project savings in the form of time and money through perpetuity.

The overall purpose of this policy is to enhance the safety of the traveling public.

DEFINITIONS:


Department: Ohio Department of Transportation

FHWA: U.S. Department of Transportation, Federal Highway Administration

Remediation: Repair of unstable subsurface and surface conditions related to abandoned underground mines.
TRAINING

District AUMIRA coordinators shall be familiar with the content of the May 15, 1998 AUMIRA manual through completion of AUMIRA training defined and provided by the Office of Geotechnical Engineering. Permanent training requirements for District AUMIRA Coordinators will include periodic participation in statewide training sessions, field trips, and coordination meetings.

FISCAL ANALYSIS

The fiscal impact of this policy is two-fold. The first fiscal impact is the initial cost for implementation of the process, resulting in population of the statewide database. The second fiscal impact is the annual cost associated with: 1) the periodic monitoring of individual inventory sites; 2) database maintenance and updating to reflect changed site conditions or information; and 3) staff time needed for periodic training sessions, field trips, activities, and meetings to provide statewide coordination, continuing education, and technology transfer.

The statewide cost to implement this process, including site inventory and assessment, and establishment of site information in a statewide database, is estimated to be $366,000 if performed by Department staff. If performed by consultant, the estimated cost is $1.13 million. The annual costs for statewide site monitoring, training, meetings, and database maintenance is estimated to be $212,640.

Strategic Planning and Research funding may be available for some portions of the above estimated costs.

A fiscal analysis supporting the above estimated costs is available in the Office of Geotechnical Engineering.