

## I. Purpose and Scope

### Purpose

The Pennsylvania Department of Environmental Protection (DEP) has prepared this report to examine the effects of underground bituminous coal mining in areas undermined during the past five years using summarized information about structure damage, land damage, stream impacts and water supply impacts.

DEP gathered information for the report with help from its partners--local citizens and municipalities, utility operators and the mining industry. The analysis of the gathered information and completion of the report fulfills the requirements of Section 18a of the Bituminous Mine Subsidence and Land Conservation Act (BMSLCA). The text of this section is presented below and the statute is included in Appendix A.

### § 1406.18a. Compilation and analysis of data

- (a) *The department shall compile, on an ongoing basis, the information contained in deep mine permit applications, in monitoring reports and other data submitted by operators, from enforcement actions and from any other appropriate source for the purposes set forth below.*
- (b) *Such data shall be analyzed by the department, utilizing the services of professionals or institutions recognized in the field, **for the purpose of determining, to the extent possible, the effects of deep mining on subsidence of surface structures and features and on water resources, including sources of public and private water supplies.**<sup>1</sup>*
- (c) *The analysis of such data and any relevant findings shall be presented in report form to the Governor, the General Assembly and to the Citizens Advisory Council of the department at five-year intervals commencing in 1993.*
- (d) *Nothing contained herein shall be construed as authorizing the department to require a mine operator to submit additional information or data, except that it shall require reporting of all water loss incidents or claims of water loss.*

Section 18a was added to BMSLCA in 1994 along with other amendments that changed the fundamental nature of Pennsylvania's mine subsidence program. These changes resulted from Act 54 of 1994. The primary changes enacted by Act 54 included:

- Making water supply replacement requirements applicable to underground coal mining.
- Expanding subsidence damage repair or compensation requirements to structures that were previously without coverage.
- Deleting the absolute protection previously provided to "pre-1966" dwellings and cemeteries.

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<sup>1</sup> Emphasis added

- Deleting the right of a surface owner to purchase coal support from the mine operator.

Section 18a requires the Department to compile information that documents the impacts caused by underground mining and to analyze that information to determine whether the provisions of BMSLCA dealing with water supply and subsidence impacts are working as intended. An important part of that analysis is an evaluation of the extent to which those impacts are being remedied. The amended BMSLCA allows for the occurrence of various types of impacts, but requires mine operators to repair or compensate for the resultant damages. In a system of this nature, it is important to consider the remedy as well as the initial impact in making a final evaluation of program effectiveness. This report therefore explores both the occurrence of mining-related impacts and the effectiveness of BMSLCA's repair and compensation provisions.

## Scope

This report examines the effects of underground bituminous coal mining in areas that were undermined during the past five years. It examines how mine operators resolved impacts through the various options provided by law. The report includes information about the areas where mining has taken place and the location of that mining in relation to roads, streams, pipelines and other features of public importance.

The information in this report is derived from various sources including permit applications, map records, inspectors' observations, investigation files, mine subsidence insurance records, geographic data layers and surveys of mine operators and property owners. A complete discussion of information sources is provided in Section IX.

The objective of the report is to summarize all structure damage, land damage, stream impacts and water supply impacts that have occurred during the study period. (A more detailed discussion on the period of study is presented in Section IV). In collecting this information, the Department had to rely on a substantial amount of information provided voluntarily by property owners and mine operators. This mode of data collection was necessary since BMSLCA provides for many claims to be settled between mine operators and property owners without Department involvement. Under these circumstances it is possible that some claims were missed. It is also possible that some of the reported claims are not actually due to mining. The Department did, however, cross-check information among different data sources to the maximum degree practicable to ensure as high a degree of validity as possible.