

## **Act 54 – Effects of Underground Bituminous Mining**

### **Bureau of Mining Programs and Bureau of District Mining Operations**

### **5<sup>th</sup> Report Overview**

#### **1. Act 54 of 1994 Amendment to Bituminous Mine Subsidence and Land Conservation Act (BMSLCA) of 1966**

Act 54 included provisions for protection and restoration of water supplies affected by mining and additional remedies for structural damage. It also required regular assessment of the underground mining regulatory program. The Act 54 Report was deemed to be an important audit of Pennsylvania's underground mining program providing the public, organizations, and the mining industry with an opportunity to review and comment on the program and allowing the Department of Environmental Protection (DEP) and overseeing parties to consider program edits and improvements.

#### **2. Act 54 Report Requirements**

Section 18.1

*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.*

*(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.*

### 3. 5<sup>th</sup> Report: The Effects of Subsidence Resulting from Underground Bituminous Coal Mining in Pennsylvania (2013 – 2018)

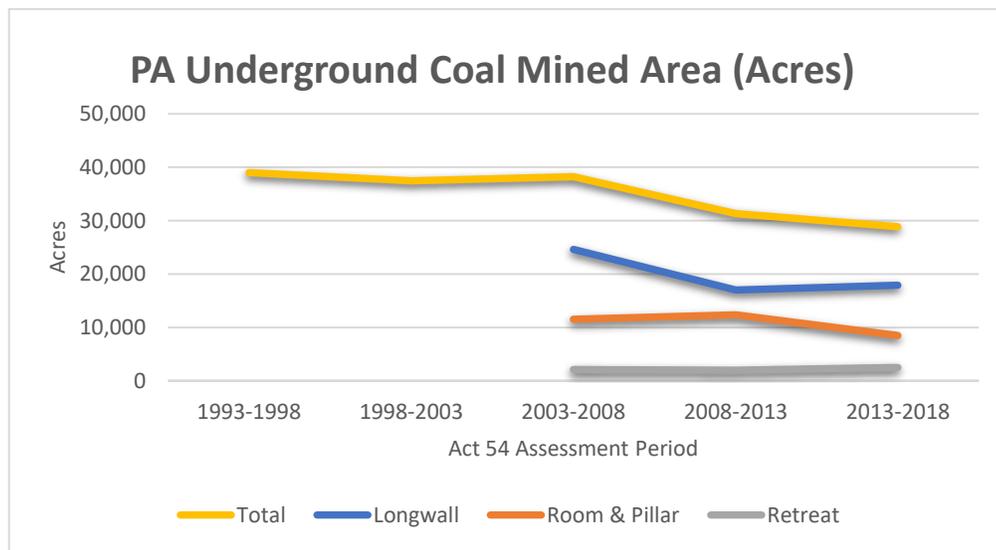
Background Information:

- Contracted to: University of Pittsburgh
- Cost: \$736,491
- Completed in August 2019 and released by DEP in December 2019

DEP supplied the University of Pittsburgh with data from the BUMIS database which contains subsidence-related damage claims. The University of Pittsburgh also approached coal mining companies for additional data. Utilizing several graduate students, the University of Pittsburgh used GIS tools and other processes to compile the data into the visuals and textual content of the Act 54 Report, ultimately providing recommendations and suggestions to the DEP for improvements to the underground mining program.

### 4. Trends from Previous Reports (See attached graphs.)

It is difficult to compare all 5 reports over time due to changes in reporting, different standards of recording, spatial and temporal differences in counting, characteristics of areas undermined during any period, meteorological, market or other factors, and double-counting in different categories and across reports. Some results are missing in specific reports. Generally, the reported effects are consistently within the same range from the initiation of Act 54.



*Mined acres from the first to last report declined 26%.*

## **5. Follow-Up and Response to the Recommendations of the 5<sup>th</sup> Report**

- DEP is assessing all the recommendations in discussion with California DMO staff.
- A table with responses will be published on DEP's website in Spring 2020.
- Feasible program changes will be made. For example, the Surface Water Protection – Underground Bituminous Coal Mining Operations Technical Guidance Document revisions as recommended in an Act 54 Report are slated to begin.
- Annual data will be tabulated and released to the public for 2018 and 2019 claims in Summer 2020.

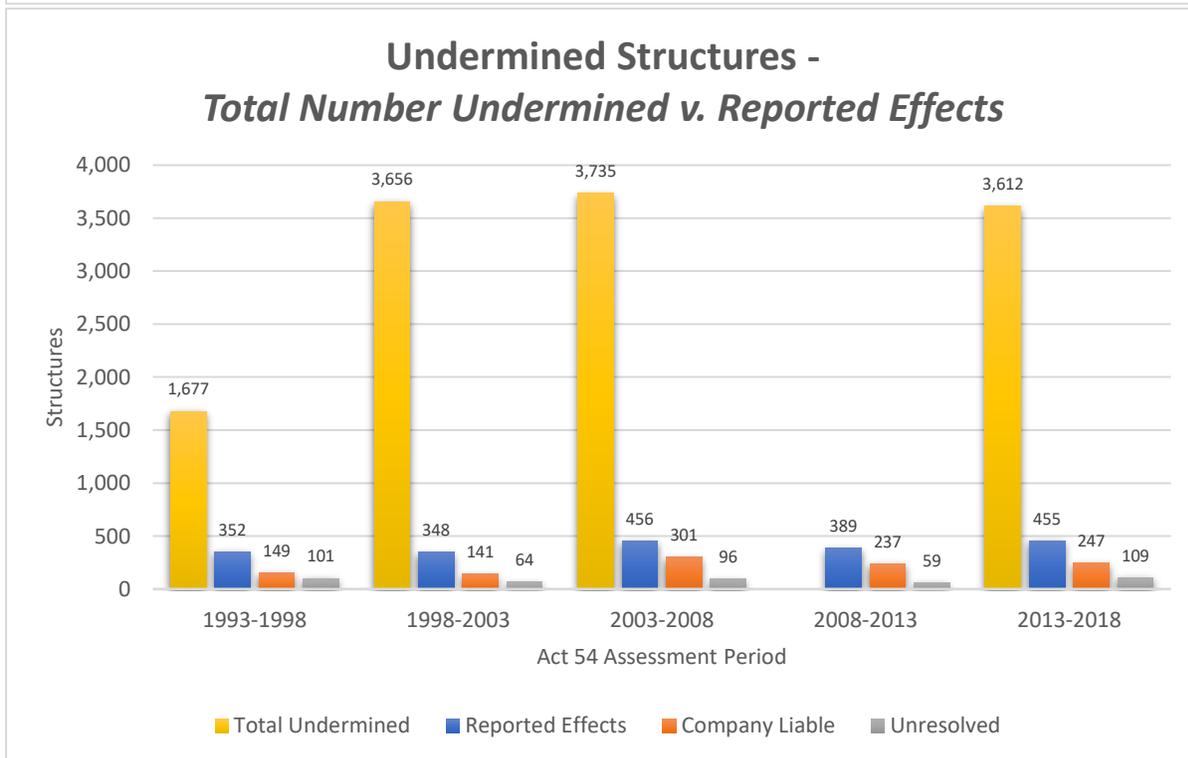
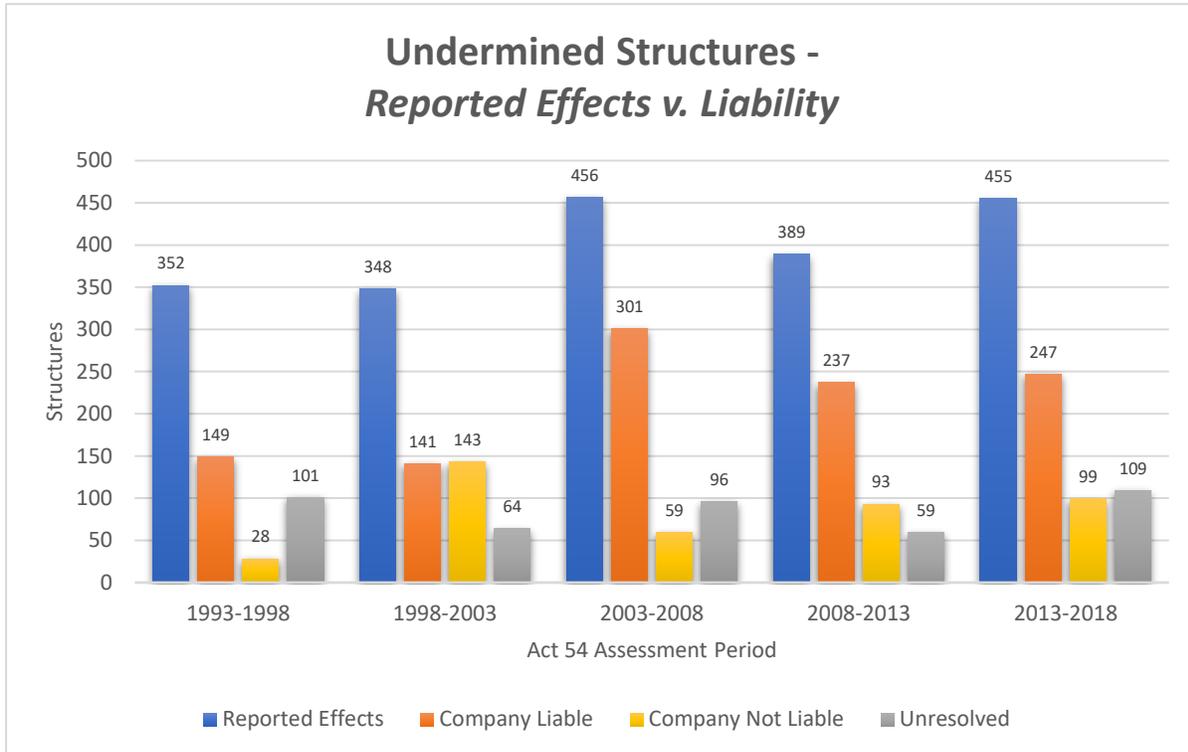
## **6. New Initiative: Yearly Data Releases**

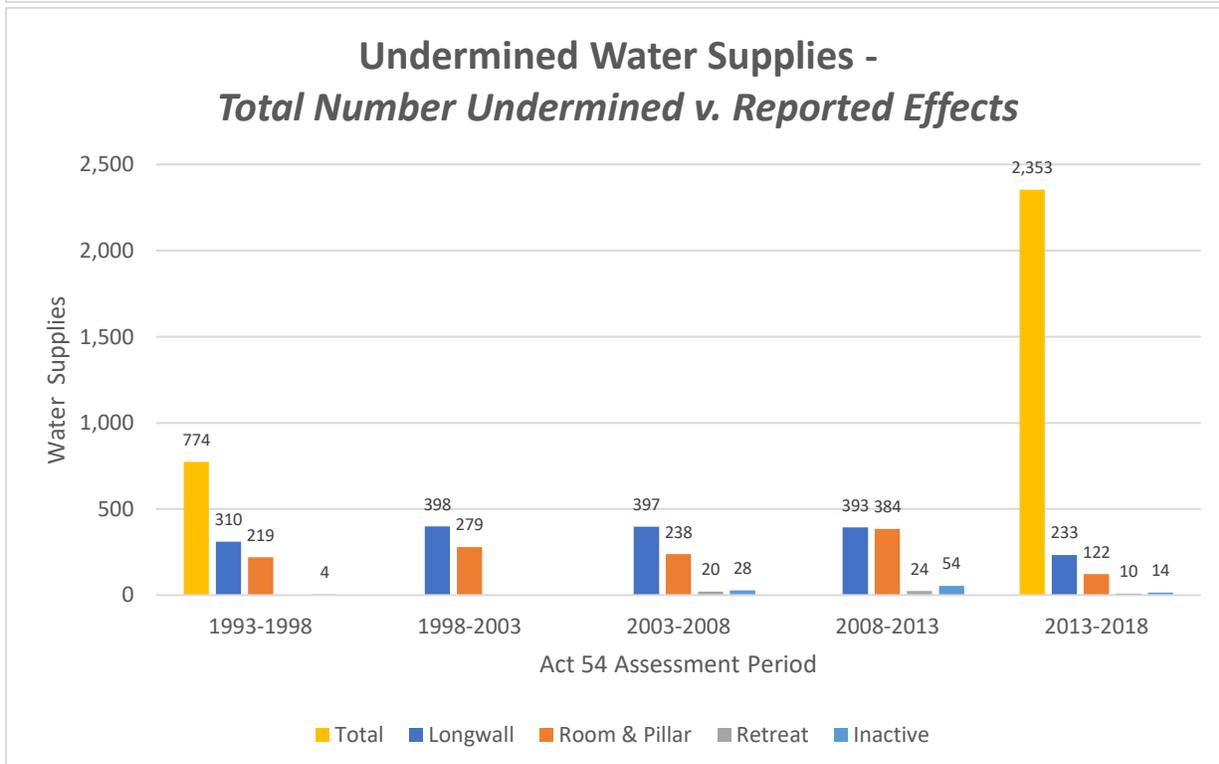
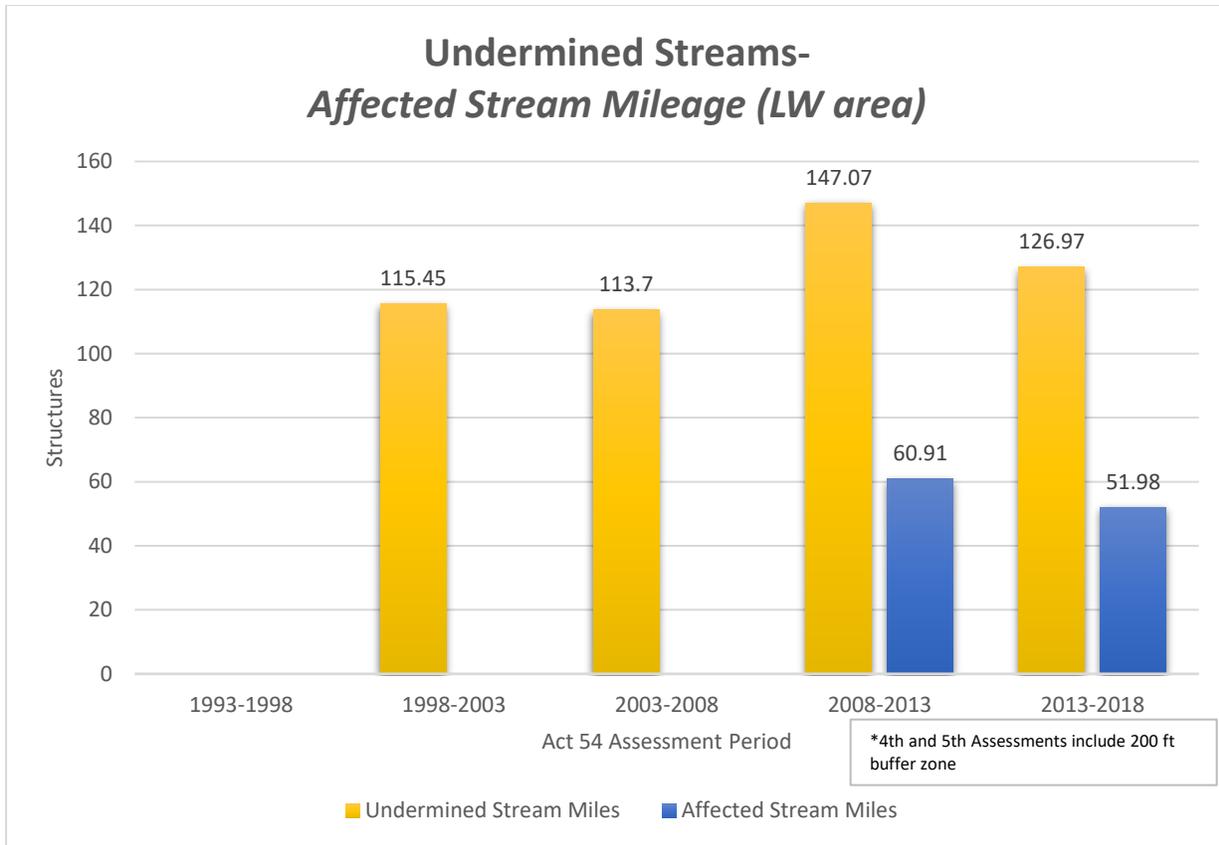
The DEP will compile the information in BUMIS and from operator reports and publish the results for each year beginning in 2020 (for 2018 and 2019). Public input will be accepted. The format of the next Act 54 Report (6<sup>th</sup> report) will not be in the book format of the last report. The DEP will continue to update the CAC on the ongoing analysis at least every year (or as requested).

## **7. Questions?**

### Attachment 1: Trends from Previous Reports

NOTE: Report #1 (1993-1998) data was obtained via voluntary responses (pre-BUMIS) and is underestimated.





### PA UG Coal Undermined Water Supplies - *Reported Effects v. Liability*

