

**TESTIMONY
Of
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**Before the
PENNSYLVANIA CITIZENS ADVISORY COUNCIL**

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**Regarding
*The Effects of Subsidence Resulting From
Underground Bituminous Coal Mining on Surface Structures and
Features and on Water Resources: Third Act 54 Five-Year Report
(2003-2008)***

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Introduction

Good afternoon. My name is George Ellis and I am President of the Pennsylvania Coal Association (PCA).

PCA is a trade association organization representing bituminous coal operators – both underground and surface – as well as other associated companies whose businesses rely on a thriving coal economy. PCA member companies produce over 80 percent of the bituminous coal annually mined in Pennsylvania (over 60 million tons in 2009), and all of the coal produced by the longwall mining method (almost 40 million tons).

We thank the Council for this opportunity to provide our perspective on the third five-year report on Act 54, which studied the effects of underground bituminous coal mining on surface structures, features and water resources for the period August 2003 to August 2008.

PCA's Perspective on the Report

Before one can analyze and comment on the report, one must fully understand the genesis and objectives of Act 54.

Act 54 was intended to reconcile the interests of mineral rights owners and surface owners. These were primarily issues of competing private property interests where mine operators acquired sub-surface rights to minerals, and surface owners acquired surface rights to their land. Both of these interests can be regulated and limited by the legislature in the public interest, but neither interest is compellingly superior to the other.

The legislature, in unanimously enacting Act 54, made a conscious public policy decision to balance these competing ownership interests more than they had been in the past.

It gave more rights and protection to the surface owners than they previously had under the 1966 law that, at the time, governed mine subsidence. Essentially, the 1966 Act required operators to mine so as not to cause damage to the following limited class of structures in place as of April 27, 1966:

- Dwellings,
- Public buildings or noncommercial structures customarily used by the public,
- Cemeteries.

DEP implemented this provision by requiring that 50 percent of the coal had to be left in “support pillars” beneath this list of structures and if structural damage occurred, the operator was liable.”

This protection did not apply to water loss. Indeed, the 1966 law provided no protection or remedy to any surface owner whose source of water was affected by underground mining regardless of the date the structure was in place.

The law also offered no protection or remedy from subsidence damage to owners of structures built after 1966 (while the 1966 law did allow owners of post-1966 structures the right to purchase coal pillar support from the operator, this right was rarely exercised because it was too costly).

In recognizing that full extraction mining is more efficient, safe, and less environmentally damaging in the long run than other forms of coal mining, Act 54 also removed the statutory impediments to this mining technology.

The purpose of the Act was to allow operators to extract a higher ratio of coal in a responsible manner after receiving a permit from DEP, while being liable for any damage that the activity caused to overlying structures and any water supplies regardless of when they were built. It also expanded the class of structures afforded these protections to include commercial, industrial and agricultural structures and water supplies.

Essentially, the law created a replacement and repair remedy for damage caused by subsidence; it did not create a subsidence prevention standard. This was the legislative solution for balancing the rights of the landowner and coal operator.

Therefore, in determining whether implementation of the Act is meeting legislative intent, as is the purpose of the five-year report, one must evaluate the industry’s response to subsidence damage and water loss claims to see if those claims have been adequately resolved under the remedies provided in the law.

It should also be noted that the remedies in Act 54 provide more for the property owner and for the farming community, in terms of structural repairs or compensation and water replacement, than the corresponding federal standard or the standard imposed in other coal producing states where longwall mining operations are conducted.

Based on data collected and studies conducted to date, including this five-year report, it is clear that Act 54 is working as it was intended, operators are meeting their

repair/restoration obligations in accordance with the law the mandates required by Act 54 are being met and the magnitude of damage caused by underground mining is limited and manageable.

Specific Comments

First, the authors of the report specifically cited representatives from three coal companies – CONSOL, Alpha and Rosebud – whose total underground mine production in 2009 amounted to about 90 percent of Pennsylvania’s total underground production – for willingly and fully cooperating with the University in making their data available, saving considerable time and effort in data gathering.

This responsiveness is indicative of industry’s attitude that the more public policy officials focus on accurate data, the more convinced they will become of Act 54’s effectiveness in balancing the property owner and coal owner’s rights.

Second, we need to put in perspective the limited scope of underground mining’s footprint on total land mass.

During the third assessment period, 50 underground mines were active undermining a total of 38,256 acres of land. Pennsylvania’s total land area is 44,820 square miles so underground mining has the **maximum** potential to affect about 1 percent of Pennsylvania’s total land mass.

In addition, the use of longwall mining technology to extract coal is employed in only two of Pennsylvania’s 67 counties – Washington and Greene.

Water Supplies

The report supports the contention that mining’s effect on water supply is limited in scope and not permanent.

According to the report, about 75 percent of water supplies undermined during the third assessment period had no reported impacts (2,106 wells, springs and ponds out of a total of 2,789).

Of the 683 cases with reported effects, 449 (66 percent) were resolved and the remaining 234 were pending a resolution (the status of which mainly ranges from currently implementing an agreed-to water replacement plan, waiting to install public water or reaching an agreement on operation and maintenance costs).

The average number of days to resolve water supplies' reported effects was 321, although operators are required to provide temporary water to the landowner from the time the source is reported to be affected until a permanent supply is installed and useable.

Resolution strategies for recovering water supplies are often multi-step, especially when wells and springs are being replaced. For example, longwall mining subsidence takes approximately seven months to stabilize before meaningful repair can begin.

Among the other major factors leading to delays in resolving water replacement issues involve extending public water to a property and protracted private disputes over a final payment for operation and maintenance costs (O&M costs) of the replacement water source.

According to the report, public water is used as a replacement source by longwall operators about 20 percent of the time. If a public water source is the preferred option, the company must wait until mining is completed to avoid subsequent subsidence before the hook-up can occur. In addition, it takes time to physically extend the public water line to the property.

These water lines are installed at the company's expense and, as a result of using public water as a replacement source, the area of Washington and Greene Counties served by public water have increased more rapidly than it would have without mining.

Agreements over long-term O&M costs can also extend the resolution date. Operators are required to compensate the landowner for O&M costs attendant with a permanent water source. In some cases, the amount of that payment becomes an issue necessitating a negotiated settlement with DEP's assistance, which also adds time. However, the permanent supply is in place and usable until the payment dispute is resolved.

Other factors contributing to delays in final resolution of water loss claims include:

- Location of the water supply in relation to future mining,
- A determination of whether a groundwater supply needs to be reestablished,
- Allowing a period for the original supply to recover,
- Requiring a period for the ground to stabilize so the replacement supply is not transient,

- Private disputes where a homeowner may, for various reasons, deny an operator access to the property after mining and resist attempts to repair the damage.

It is significant to note that Act 54 allows the property owner, at any time during the water restoration process, to file a claim with DEP if he or she feels that the operator is not complying with the law. At that point, DEP must render a decision within 90 days.

We recognize that this is of little consolation to the property owners whose claims have not been fully resolved. Yet, the facts indicate that there is no trend or pattern of claims being neglected or ignored by operators.

Structures and Land

The report also confirms that the majority of undermined structures do not appear to have sustained damage due to subsidence and those that were damaged are being repaired.

During the assessment period, 456 structures with reported effects were found to have occurred out of a total of 3,735 structures undermined or just 12 percent.

Of the 456 cases, 441 (or 97 percent) have either been resolved or pending an interim resolution.

Also, there were 108 incidents of land impacted by underground mining out of 3,587 properties undermined, or just three percent.

Of these, 105 properties (98 percent) have either been resolved or pending an interim resolution.

Streams

During the assessment period, of the 55 streams or stream segments reported to have been impacted by mining, 20 have been resolved and 35 cases are either in some stage of the investigation process or a state of interim resolution, including:

- Monitoring flow,
- Measuring biological diversity,
- Granting open fractures,
- Altering stream gradients,

- Deregulating stream bonds,
- Augmenting flow,
- Promoting aquatic diversity, or health, or
- Repairing obstacles within the streams that impair flow.

The authors make it a point under this section to explain certain challenges that impeded their ability to make definitive judgments on stream impacts from underground mining because of the lack of permitting information collected during most of this assessment period. Due to this dearth of information, the authors go on to say that, "...many of the questions concerning what streams are impaired and, after mitigation actions, which have attained pre-mining stream flow and biological diversity standards are yet to be answered."

The authors also maintain that because of a technical guidance document that DEP recently began to implement, this data collection situation has been corrected. Under the document, protocols have been established for:

- Increasing the amount of technical information on streams required to be submitted by the permit applicant,
- Increasing the stream monitoring requirements,
- Assessing the biological health of streams, and
- Determining when a stream was impaired for low flow or degraded diversity and when it attained a resolution of the reported impact.

The authors also note that stream mitigation actions have increased dramatically through the three assessment periods while in other cases, "...**natural** processes have been successful since no impacts were observed in more than **half** of the streams undermined by **longwall** panels."

Finally, it is interesting to note that DEP routinely issues Water Obstruction and Encroachment Permits to other non-mining activities (e.g. land developers and highway builders) authorizing the enclosure or "fill" of streams. Why is the mining program held to a zero tolerance standard for unmitigated mining impairment to streams while other programs allow permanent impacts by water obstructions or encroachments?

Wetlands

A total of 93.9 acres of wetlands were identified as having been undermined during the assessment period.

According to the report, mining permits reviewed prior to 2007 contained very uneven reporting data so the authors had difficulties in trying to gauge mining's impact, if any.

As with streams, however, DEP instituted a policy guidance that took effect in 2007 that establishes a sound and precise protocol for delineating wetlands. As a result, the authors concluded that, "Thus all permit applications submitted after October, 2007 contained excellent pre-mining data that inventoried all wetlands down to sizes of a few hundredths of an acre."

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According to the report, nine longwall panels undermined Interstate 79 during the 2003-2008 timeframe.

The authors noted that the damage associated with mining under the interstate was within the range of commonly observed distress concrete documented by the Federal Highway Administration. It went on to say that the vast majority of highway deformations were transient.

More importantly, no accidents were attributed to mine subsidence and driving restrictions were limited to reduced speeds and single lane traffic during times of active mining or repairs.

The study also found that it has been more cost effective to allow longwall mining to proceed than for the Commonwealth to condemn the amount of coal needed to provide support for the highway.

Conclusion

PCA and its member companies recognize that there are fundamental and legitimate property owner concerns about the impacts of mining. My testimony should not in any way be construed as industry's indifference towards these concerns or an attempt to marginalize them. We fully understand the apprehensions that people may have when they learn that their home will be undermined and we make every effort to work with them to return their home and lifestyle to normal after subsidence. While

mining impacts are temporary and not a permanent disturbance, there still can be a significant impact on people's lives during the mining and post-mining process. As such, we are both mindful of and sensitive to these concerns.

Finally, when reviewing the background of Act 54, the Council should keep in mind the intent of the law, which was to provide a replacement or restoration remedy for damage caused by subsidence. This was the legislature's solution for balancing the rights of the landowner and coal operator. The intent was to balance the disparate rights of surface owners under the antiquated 1966 Subsidence Law, allow the use of modern mining technology and correct surface impacts from subsidence, not to prevent subsidence.

Within this context, PCA believes that the third five-year assessment report on Act 54 confirms that this law is working as it was intended and its damage repair and water restoration strategies are being carried out as intended.

Thank you for this opportunity to provide our perspective on the report.