SCHMID & COMPANY INC., CONSULTING ECOLOGISTS
1201 Cedar Grove Road, Media, Pennsylvania 19063-1044
610-356-1416 fax: 610-356-3629
www.schmidco.com spkunz@aol.com

10 April 2015

Michele Tate, Executive Director
PADEP Citizens Advisory Council
Rachel Carson State Office Building, 13th Floor
400 Market Street
P.O. Box 8459 By email mtate@pa.gov
Harrisburg, PA 17105-8459

In re: Comments Relating to the 4th Act 54 Five-Year Assessment
Review of Pennsylvania Coal Alliance Comments to CAC

Dear Ms. Tate:

The following comments were prepared on behalf of the Citizens Coal Council. They address the comments provided to the Council on 17 March 2015 by Mr. John Pippy on behalf of the Pennsylvania Coal Alliance. These comments attempt to correct certain points made by Mr. Pippy that we believe are either exaggerated or incorrect. Our comments below follow the outline of those presented by Mr. Pippy.

Although the CAC specifically had requested that commentators limit their remarks to matters raised in the 4th Act 54 Five-Year Assessment, Mr. Pippy devotes nearly a full page (of his 11 pages) discussing economic impacts, a topic that is not discussed in the 4th or any previous Act 54 Assessment.

Economic Impacts

Mr. Pippy cites a report commissioned by PCA and prepared by the PA Economy League of Greater Pittsburgh. According to Mr. Pippy, that report says that longwall mining created 7,367 "direct and indirect" jobs in 2013 in Washington and Greene Counties alone.

- That number seems to be overstated, however, because the PADEP's annual coal statistics state that there were only 6,954 bituminous mining jobs (counting all longwall, room-and-pillar, and retreat underground mines, plus all surface mines) throughout the entire State in 2013.

Mr. Pippy says "*if mining is* [economically] ***healthy, these communities are equally robust*".**

- This long has been the standard refrain of the coal industry --- that mining is the lifeblood of these areas and without it the local economy would collapse. But the facts always seem to belie this assertion. Given the externalized costs and damages occurring in the coalfields, when longwall mining is producing the most coal at greatest profit for the mine operator, that is when the people and communities seem to suffer

the most. The PCA study did not factor in the cost of the loss of 6 streams that were irreparably damaged. The PCA study did not factor in the cost of the loss of virtually the entire community surrounding the place called Holbrook in Greene County, where Alpha Natural Resources bought up thousands of surface acres (including homes, farms, and businesses) when it had proposed the new Foundation Mine, only to withdraw that mine permit application 3 years later leaving the area looking like an abandoned ghost town. If a fair economic evaluation were to be done, it would need to include many more factors than just mining wages and tax revenues. Consider, for example:

> Despite 20+ years of virtually unfettered longwall mining since adoption of Act 54, Greene County (which has the most and the largest longwall mines in the United States) remains one of the poorest and unhealthiest in Pennsylvania. According to the 2010 US Census, Greene County ranks 60th out of 67 Pennsylvania counties in per capita income. According to the 2015 "County Health Rankings" (Robert Wood Johnson Foundation), Greene County ranks 65th of 67 counties in "quality of life", and 63rd of 67 counties in "health factors".

<u>Genesis of Act 54</u>

Mr. Pippy asserts that Act 54 was about "*balancing*" the property rights of competing property interests.

- He fails to say how the interests ever were *out* of balance. Perhaps it had something to do with the 1966 Mining Law prohibition on structural damage. However, surface owners have never threatened to take or damage the coal beneath their properties, or even to deny access to it (provided it was mined responsibly). Yet undermined surface owners live with the threat of damage, and with real damage, from longwall mine operators every day.

- Mr. Pippy says "*neither interest is compellingly superior to the other*", yet all of the damage goes one way and the burden of proof often must be shouldered by the damaged party (surface owner)

Mr. Pippy says Act 54 "*created a replacement and repair remedy.*"

- That is true, but the Act 54 Assessments demonstrate that most damages are <u>not</u> being repaired or replaced --- and that is one of the main problems.

Mr. Pippy says Act 54 operates "*within the strict parameters of prevailing federal/state laws and regulations*".

- Again, that is what Act 54 *says* should be done, but that is not how PADEP has been implementing it. Streams and other water resources are being damaged, sometimes permanently, in violation of existing state and federal laws and regulations.

Mr. Pippy notes that "*Act 54 did not create a blanket subsidence prevention standard*".

- That is true, unfortunately. What Act 54 did was remove the prohibition on damage (not on subsidence) that was in the 1966 Mining Law. Again, that is what has led to the appalling situation we now face --- too much damage is occurring because

avoidance and minimization is not required, and most of the damage is NOT being repaired as Act 54 intended. However, rather than prohibit longwall mining, or prohibit subsidence, the law/regulations should simply prohibit "damage" (as was the case for 28 years under the 1966 Mining Law). The use of the longwall method should be allowed, so long as it is done without causing damage. Subsidence could be allowed, just as long as it is not severe enough to cause damage.

To determine whether Act 54 is working as intended, Mr. Pippy suggests that one should look at what industry has been doing regarding damages. He says to evaluate "*whether claims are being responsibly resolved by operators, are impacts temporary and correctible, and are there any lasting effects?"*

- Mr. Pippy would like to create a new standard called "responsibly resolved", but that was not the intent of Act 54, which was to **fix** any damage. Mr. Pippy's standard would mean making the landowner happy with the outcome. That MAY be happening in some cases, but even that has not been documented, and there remains a lot of dissatisfaction among folks in the coalfields who have been affected by mining. Even if an entire neighborhood loses its well water and then is satisfied that city water is extended to serve their homes, that still leaves unfixed a huge natural resource damage: the lowering of the water table.

- Industry and PADEP at one time had suggested that streams damaged by subsidence eventually would recover on their own, even if it took 2 to 3 years. The 4th Assessment specifically notes (on page VII-44), however, that "*the University could not identify any clear case of "self-healing*". Furthermore, now that hard data are being collected, we know that some dewatered streams, even with intensive intervention by grouting and augmentation, sometimes can never be restored to premining conditions. So, in light of these permanent impacts to streams and groundwater, impacts that are not and cannot be predicted in advance, the Department cannot continue to issue permits allowing this damage and at the same time abide by its trustee responsibility under the PA Constitution, Article I, §27.

General Concerns With Data

Mr. Pippy expressed concerns with the PADEP data relied upon in this and previous Act 54 Assessments.

- We share some, though not all, of those concerns. One of the biggest problems regarding the proper evaluation of impacts from subsidence in accordance with the Act 54 mandate is the lack of comprehensive, accurate, consistent, and relevant data -- and this is because the Department still, after 20+ years, does not have a good system in place to identify resources at risk and to track mine-related impacts and resolutions.

Mr. Pippy complains that during previous Assessments PCA member companies were contacted and involved by the preparers, but not so much this time.

- While that may be true, it is difficult to believe, first of all because the University of Pittsburgh prepared both the 3rd and the 4th Act 54 Assessments, and it is

unlikely that they changed their data-gathering procedures, especially when both times the data available from the Department was found to be so lacking. Second, the 4th Assessment makes numerous references to contacts with, or data obtained from, coal operators by the University researchers:

> On page viii in "Acknowledgements"

> Section II discusses data collection, and mentions that "digital spatial data provided by the mine operators" was one of the 3 main sources of data

> An entire subsection (II.B.2.2) discusses data obtained from mine operators through contact with and visits to them.

> Within individual sections of the Assessment are additional references to data obtained from the operators.

Mr. Pippy notes that PCA member companies would have been able to make available "*complete datasets that can lead to more accurate conclusions*".

- If that is true, why are those data not already being made available to the Act 54 researchers or, more importantly, to the PADEP and the public? We already know about certain data (such as weekly and daily stream flow monitoring) that the PADEP requires operators to collect, but which are not required to be provided to PADEP (and so of course they are not). This makes no sense, especially now, when an enormous amount of data can be stored electronically in very little space. All relevant data should be provided to PADEP and in turn, to Act 54 Assessment preparers.

Mr. Pippy suggests that the large decrease in the number of official PADEP stream damage investigations initiated between the 3rd and the 4th Assessment periods is due to industry's ability to more effectively mitigate stream damages.

- This is patently false. As pointed out by the University in the 4th Assessment, the huge decrease in number (from 55 to 9) is directly related to the adoption of TGD 563-2000-655 which radically changed how and when an official stream investigation now is recorded. According to the University, under the new TGD, operators are given 5 full years to successfully correct flow loss impacts, in a 2-step process: if restoration is not successful after 3 years, the operator must change future mining to avoid mining under similar settings (it is nowhere stated in the 4th Assessment how many times, if ever, this occurred), and then the operator must continue restoration efforts for 2 additional years, after which, if still unsuccessful, alternative "compensatory mitigation" will be required.

- The University notes that one problem with the new system is that *"...it is possible that similar streams may be undermined during this* [first 3-year] *time period and impacted in a similar manner*". More to the point, the University states that "...*any comparison with the average time to resolution from the 3rd Act 54 Assessment is difficult to interpret and relatively meaningless*." The University then discusses the 5 of the 9 stream cases which had been "resolved" during the 4th Assessment period, and the inadequacies it found in every one of those cases (*i.e.*, they were not in accordance with the TGD), both in terms of the data used and observations made by either the mine operator or the Department.

Mr. Pippy agrees with the University suggestion in the 4th Assessment that data standardization and electronic submission would allow more uniform, efficient, and timely data reporting and interpretation.

- We agree, too. This would benefit all stakeholders.

Scope

Mr. Pippy prefers to focus more on the properties and other features that were not damaged by underground mining than on those that were damaged, and to count damages from all methods of mining equally.

- If you change the denominator in the evaluations, it makes the effects appear to be less significant than they actually are. The facts are what they are: Of all effects to structures, water supplies, and land where mining was found to be liable, 72% (517 of 715, see Appendix B) were due to longwall mines.

Mr. Pippy would like to count <u>all</u> of the structures and water supplies that were undermined and then calculate the small (to him) percentage of them that reported damage.

- This would make sense only if you believe that coal operators are supposed to get credit for not damaging 100% of the structures and water supplies that they undermine. In one sense, though, Mr. Pippy has a valid point: in the 3rd Assessment period, the total numbers of structures and water supplies undermined had been tallied and reported by individual mine, but that was not done (for some unexplained reason) in the 4th, and we agree that it should have been.

Mr. Pippy wants to focus on all "reported" effects and not just "mining-liable" effects.

- We believe that effects that are not related to mining are irrelevant to the Act 54 Assessment. "Reported effects" eventually are split between "mining-liable effects" and "nonmining-liable effects". If 20% of the initially reported effects are determined **not** to have been related to underground mining, they should not be part of the Assessment. (We would have to question *why* a structure or water supply damage that just happened to occur around the time it was undermined was determined not related to the mining. The 4th Assessment does not discuss how the Department determined liability.) But assuming for the sake of argument that all effects that initially were reported but later were determined to be related to some non-mining cause were accurately evaluated, those numbers should be deleted. After all, 200 people may have received speeding tickets during this Assessment period, but so what? It is not relevant to an analysis of the effects of Act 54.

- As an example of how focusing on the larger category of "reported" effects can distort reality, consider this: The University noted in the 4th Assessment that 81% of all "reported" structure impacts were due to longwall mining (315 of 389); however, if you look at mining-liable impacts to structures, the proportion is much higher at 97% (230 of 238).

- Thus, the only relevant dataset should be the number of mine-liable impacts by category and by mine (and perhaps the total in each category undermined by

mine). Because one of the most significant facts that emerges from these Assessments is that longwall mines are responsible for the overwhelming majority of impacts to structures, land, and streams.

Mr. Pippy implies that the time to resolution of longwall-related impacts is unfairly inflated because some repairs cannot begin until subsidence has stabilized in undermined areas, which he says takes about 7 months.

- First, we believe the assertion that subsidence stabilizes within 7 months is an underestimate. Nevertheless, while a need to await stabilized conditions may help *explain* the lengthy resolution time in some cases, it is something intrinsic to longwall mining that cannot be changed, and so it does not make it any less of a burden or inconvenience for the impacted surface owner.

Structures

Mr. Pippy says that a property owner always has the right to file a complaint with the PADEP if he believes the mine operator is not complying with the law.

- Many landowners feel pressured into signing private agreements with coal operators, after which their options under Act 54 become limited. Also, many landowners are as suspicious of the PADEP as they are of the mine operators, which too often seem to be on the same side in opposition to landowners. Most landowners do not have the time, energy, resources, or expertise to follow multiple damage claim processes. Landowners should not have to fight to prove the legitimacy of their damages or to get full reparation when they were damaged in the first place through no fault of their own. From the landowners' perspective, it was "the law" that caused their problem, so why should they trust "the law" to resolve it?

Groundwater

Mr. Pippy notes that the analysis in the 4th Assessment of groundwater and hydrologic impacts from mining was "challenging".

- That is of course true, and by "challenging" the University meant that it could not be effectively done because of a paucity of available data. This was the exact same situation we faced with surface water resources 10 or 15 years ago: no proper analysis of effects could be made because of a lack of meaningful premining and postmining data. If a new TGD were to be implemented by PADEP this year to address this shortcoming with respect to groundwater, it is likely to take 10 to 15 years or more before the adequacy of that TGD can be properly evaluated (just as the TGD on surface water protection, first adopted in 2005, still cannot be adequately evaluated).

Streams

Mr. Pippy says that the University did not have adequate data to assess stream impacts and stream restoration efforts, precluding them from drawing certain definitive conclusions about negative mining impacts on streams.

- While true, that in itself illustrates an important point --- that now 10 years after adoption of the TGD on stream protection, which identified specific detailed procedures for collecting and assessing the condition of streams, it still is not possible to evaluate how effective the TGD has been, since it is not being faithfully followed by PADEP or by the industry. That suggests that any new change in policy or procedure going forward will likely have a similarly long time lag before it can be properly evaluated. It also raises a serious question regarding how the PADEP can permit longwall mining beneath streams if it does not have adequate data to assess impacts.

Mr. Pippy notes that the stream miles reported in the 4th Assessment as having been affected by pooling, flow loss, or both actually are overstated because they refer to impacts that occurred "somewhere along their length" and not necessarily along their entire length.

- This point, too, illustrates a larger problem -- which is that the Department does not have (and the Act 54 researchers could not obtain) accurate enough information to identify the specific lengths of streams that were damaged (or for that matter, were "successfully" restored). This is a major shortcoming of the Act 54 evaluation process, of the Department's implementation of Act 54, and of the Department's implementation of its existing Chapter 89 regulations regarding the protection of the hydrologic balance.

Mr. Pippy thinks that the miles of streams reported in the 4th Assessment as having suffered flow loss are overestimated because it "*does not account for streams that may be naturally dry during the wet season*".

- We cannot imagine any permanent or intermittent stream being *naturally* dry during the wet season; if it is dry at that time, there must be some underlying unnatural cause.

Mr. Pippy says "*The University suggests that most streams that have experienced a flow loss will recover to pre-mining biological conditions in approximately three to four years*."

- We did not see that suggestion in the latest Assessment. What was said was this:

"... *the University could not identify any clear cases of self-healing*..." (page VII-44)

Mr. Pippy tries to make stream impacts seem less significant than they are by using passive phrasing ("*streams that have experienced a flow loss"*).

- The fact is those streams were dewatered by subsidence as a direct result of longwall mining.

Mr. Pippy mentions the 7 cases where (6) streams were determined to be "*not recoverable*". He argues that the data collected by the consultants for the mine operator in 2012 demonstrated that 5 of those streams *had* recovered.

- What Mr. Pippy neglects to mention is that it was the Department's rejection of those very consultants' conclusions that lead to its December 2012 determinations that the six streams were irreparably dewatered.

Mr. Pippy suggests that because streams and wetlands are "*dynamic*" systems, it is difficult to determine with any precision their "normal" condition, and that sampling just represents a "snapshot" in time.

- This is simply not true, because there are accepted scientific methods that are used to "normalize" the data, and which take into account short-term variations due to weather or season. However, Mr. Pippy apparently believes in the accuracy of those same sampling "snapshots" when it is the mine operator's data being used to try to demonstrate recovery of a damaged stream.

Wetlands

Mr. Pippy expresses a fallacy -- one that also is mentioned in the 4th Assessment -- that subsidence from longwall mining can "*cause new wetlands to be formed and therefore the need for mitigation is infrequent*".

- This idea includes several erroneous assumptions, the most important being that the wetlands reported premining by mine operators identify ALL wetlands above the mine. In fact, no one, not PADEP and not the Corps of Engineers, field checks the accuracy of the premining wetlands delineated above underground mines. We know from experience that wetland delineations that are submitted with permit applications by mine operators omit a lot of wetlands. For example, in the proposed Foundation Mine application, a wetland delineation was done only for the 1,867-acre surface facilities area. The applicant identified 16 wetlands there, where the National Wetlands Inventory (NWI) had mapped only 2, so that seemed to be much more accurate. However, the Corps of Engineers conducted field inspections as part of a JD (jurisdictional determination), and identified 28 more wetlands (for a total of 44) in the same area. If the Corps had not reviewed those wetland delineations, and if any of the additional 28 wetlands had been adversely affected by mining, those impacts would not have been recognized. Furthermore, any or all of those 28 wetlands might have been identified postmining, in which case they would have been incorrectly counted as wetland “gains”.

- Another point is that, although it is true that subsidence can create wetlands, unless a newly created wetland is permanently preserved via some sort of deed restriction or easement, there is no assurance it will remain as wetland; thus, it cannot be used to offset any wetland loss. There was no mention in the 4th Assessment of any such restrictions or easements on any "created" wetlands. And like premining wetland delineations, no one reviewed or checked the accuracy of any postmining wetland delineation during the five-year period.

- The 4th Assessment notes that a total of 27.8 acres of wetlands were acknowledged as having been lost due to underground mining during the last 5-year

period. That is a significant number, and the actual losses likely were much higher, since the Corps had not field-checked any of the premining delineations. The 4th Assessment also notes that 2.31 acres of wetlands were proposed to be created in two locations to offset wetland losses, but that they did not meet even the minimum 1:1 functional value replacement criterion, and it was too soon to try to evaluate their long-term success.

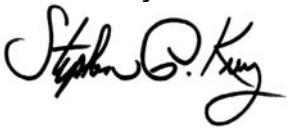
Conclusion

Mr. Pippy concludes that the 4th Assessment confirms that Act 54 is working as intended. He again states that mining impacts are only "*temporary*", ignoring the DEP-documented irreparable damage to at least 6 streams and the permanent hydrologic changes that damaged more than 350 water supplies in documented mine-liable incidents. He says that impacts have been minimized despite overwhelming evidence to the contrary. He reiterates that Act 54 provided a "*replacement or restoration remedy for damages*", but fails to acknowledge that that has not been happening in the vast majority of cases. He says again that Act 54 was "*not intended to prevent subsidence*", but conveniently ignores the clear intent that if subsidence caused damage it was supposed to be fixed. He repeats the contention that Act 54 was meant to balance competing property interests, without explaining how surface property owners ever impinged on the rights of the coal owners.

In short, Mr. Pippy's comments are a simple repetition of the same arguments that the coal industry has been trying to make for the last 20 years, without basis in fact and unsupported by the 4th Assessment. It is understandable that this is the position of the PA Coal Alliance, but these assertions must be considered in light of the reality of what has been happening in the coalfields to people, their communities, and their water and other natural resources.

Thank you for the opportunity to provide these comments. We are confident that when Council prepares its own comments and recommendations to the General Assembly it will rely on the facts as reported in these Act 54 Assessments.

Yours truly,



Stephen P. Kunz
Senior Ecologist

cc: Aimee Erickson, CCC