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**Center for Coalfield Justice Submission to the Citizen's Advisory Council on Act 54**  
*California Hearing - March 27, 2015*

Thank you for the opportunity to provide comments on the 4<sup>th</sup> Act 54 Report covering 2008-13 to members of the Citizens Advisory Council. My name is Caitlin McCoy and I am an environmental attorney and the Legal Director of the Center for Coalfield Justice, which is located in Washington, Pennsylvania. The Center for Coalfield Justice was founded in 1994 by individuals organizing against the destruction caused by longwall coal mining. Over the last 20 years, we have expanded our mission to work on issues related to extractive industries generally in Washington and Greene counties. CCJ has nearly two thousand members and supporters, most of whom live here in Washington and Greene counties and live with the daily impacts of fossil fuel extraction. These comments serve as an abbreviated version of our more detailed technical comments that will be later submitted in writing.

Today, I will address five main areas of concern, each with their own list of recommendations we believe the CAC should make to the Department based on the Act 54 Report findings. First, Access to Information and Data Management. Second, Effects of Mining on Streams. Third, the Ecosystem View. Fourth, Effects of Mining on Structures. And finally, Water Supply Impacts Caused by Mining.

**I. Access to Information and Data Management**

It is critical to note immediately that any discussion of the fourth Act 54 Report, covering 2008-2013, will fail to take into account data that was not submitted to DEP, was submitted in a format that hindered analysis, and data that DEP lacks the capacity to store, manage and organize in a way that allows for evaluation. The report contains multiple references to the need for DEP to address data organization and management issues. DEP's failures in this regard have rendered it impossible to comprehensively review the impacts of mining during the assessment period.

It is significant that this report was produced based DEP's records alone because it resulted in a report based solely on publicly available information. If mining companies have data that could have been provided to the University of Pittsburgh in their work on this report, but that data was not provided to DEP, keep in mind that is information the public cannot access. The existence of such information does not change the fact that DEP's records are perilously inadequate and that is precisely what needs to be addressed by the CAC and in turn, DEP.

Accordingly, we ask that the CAC recommend DEP implement an information system and standards for data that are enforced to allow meaningful evaluation, as well as ensure accessibility and transparency for people who wish to review DEP files.

## II. Effects of Mining on Streams

The effects of underground mining in the Commonwealth are staggering: the 46 mines operating between 2008 and 2013 undermined a total of 31,343 surface acres. Approximately 40% of the acreage undermined by bituminous coal mining in Pennsylvania is within Greene County, and 19% in Washington County.

A total of 96.05 miles of streams were undermined between 2008-2013. Of these, 50.59 miles of streams were undermined by longwall mining methods, while 45.04 miles were undermined by room-and-pillar methods. (VII-15). According to the report about 77% of the total miles of streams undermined by longwall techniques, experienced flow loss, pooling or both. (VII-20).

These statistics show that DEP is flagrantly failing in its duties to protect and preserve Pennsylvania's streams. Under applicable state law, the Department is precluded from issuing a permit for full extraction longwall mining where the applicant predicts that the flow of a stream will be diminished or eliminated, either temporarily or permanently. 25 Pa. Code § 86.37(a)(3). The Environmental Hearing Board has explained DEP's responsibilities this way: "If it is known in advance that things will go bad, the permit cannot be issued in the first place. The fact that the Department requires deep mining permit applicants to describe how they will repair streams *if* they are damaged does not mean that it is acceptable to damage the streams. Stream mitigation plans are designed to address *unanticipated* damage, not to excuse or approve damage in advance." *UMCO Energy Inc. v. Commonwealth of Pennsylvania, Department of Environmental Protection and Citizens for Pennsylvania's Future*, 2006 E.H.B. 570. Yet, the Department continues to expose Pennsylvania streams to an activity that is shown to destroy or impair streams 77% of the time, whether predicted or not.

The high rate of damage to streams is even more alarming considering that the report states that "while mining companies are generally either able to repair, replace, or financially compensate for damages to structures, the ability to repair damage to streams remains largely unknown." (I-7) This is very troubling considering that DEP improperly operates according to a model which allows longwall mining to seriously impact streams, even to the point of destruction, and then relies on stream mitigation procedures to try to remediate and reconstruct the streams after mining and subsidence have occurred.

A review of stream impacts and investigations reveals two investigations that were found to have relied on inadequate data and observations to reach determinations that impacts were "Not due to underground mining." For two other stream investigations currently underway, the flow data available to DEP is inadequate. (VII-28). Of the investigations pending during the last assessment period, one was withdrawn without explanation, seven investigations had a final resolution status of "Not recoverable: compensatory mitigation required" meaning that all mitigation efforts failed and monetary compensation to the state for the loss of the streams was the only recourse, and four stream investigations remain unresolved after being open for 7-8 years. (VIII-3), (VIII-5).

The Department has an obligation to demand more, both from the industry and from themselves. The people of the Commonwealth “have a right to clean air, pure water and to the preservation of the natural, scenic, historic and esthetic values of the environment.” The public has put their faith in the state, specifically the DEP, to uphold its duty as the trustee of these resources to conserve and maintain them for the benefit of all people, as set out in the Pennsylvania Constitution, Penn. Const. art I, § 27. Today we have definitive proof that people cannot trust DEP to advocate on their behalf; to defend their rights against the greed of mining industry.

Accordingly, we ask that the CAC recommend

1. DEP establish a technical committee or workgroup, either composed of staff or independent experts, tasked with studying the success of stream restoration activities undertaken in the Commonwealth to determine whether it is actually possible to restore a stream to its pre-mining condition once it has been damaged by underground coal mining. DEP and this group should also consider also the potential for weathered stream grouting material to cause or contribute to increases in conductivity and pH in streams.
2. Full extraction mining should not be permitted under streams.

### **III. Ecosystem View**

A major theme that runs through the report is the way that one event can result in a variety of impacts which have ripple effects across the surrounding ecosystem.

Perhaps you have heard the phrase, “We all live downstream.” Although a stream would be the perfect metaphor to use here to illustrate the impacts of mining across an ecosystem, I am going to use an industrial comparison instead because we have so few healthy streams that flow naturally in Washington and Greene Counties that we are far more familiar with industrial infrastructure. So, think of the flowing water of a stream like a train headed down the tracks, now shift or remove part of the tracks. This is what happens when part of a stream is damaged due to mining. Like the train, which cannot continue on its path, the water in a stream may stop completely and pool at one point resulting in a dry streambed downstream. Here is where this simile, like any comparison, falls short of completely capturing the reality of the issue at hand. Southwestern Pennsylvania streams flow with not only surface water, but with often significant groundwater contribution as well. This comparison also fails to convey the full implications of loss of flow or disruption of flow because a stream is a living entity and part of a larger living ecosystem.

The report details the variety of adverse effects on the entire stream ecosystem that can result from disturbances in stream flow and chemistry, including excessive stream vegetation growth, increases in undesirable insect species, reduced aquatic insect diversity, reductions in fish populations, habitat space reduction, higher water temperatures, and lower oxygen. (I-16).

The report also found that as permit revisions are submitted over time, baseline hydrological information becomes less detailed, more concise, and fails to reflect hydrological changes that have occurred over the life of the project, or since the last

revision. This piecemeal revision system allows environmental impacts to evade review. This practice is against Pennsylvania law and regulations, and exacerbates the extensive consequences of mining. It flies in the face of logic and established principles of environmental science to allow the permitting process to continue this way.

We think the law requires accurate baseline hydrologic information and under the Clean Streams Law, DEP must account for the cumulative impacts of *all anticipated mining*. The Department is responsible for performing a Cumulative Hydrologic Impact Analysis (CHIA), 25 Pa. Code § 86.37(a)(4), and the Applicant is responsible for including a Prediction of Hydrologic Consequences (PHC) in its mining application. 25 Pa. Code § 89.35. The Department should have all of the information at its disposal needed to make regulatory decisions that protect ecosystems. Therefore, this seems to be an issue of internal operation and/or enforcement failures.

Accordingly, we ask that the CAC recommend

1. DEP overhaul the permitting and enforcement process and demand that companies submit detailed, updated baseline hydrological information in every application for a permit revision.
2. DEP require collection and reporting of more frequent hydrologic data (i.e., at 15 or 30 minute intervals) rather than once daily. Frequent readings will provide more comprehensive data, taking into account natural variability of streams, springs and other water supplies, which is necessary to evaluate the impacts of mining.
3. DEP increase Hydrologic Monitoring Report (HMR) points and locate them closer to impacted and at risk water sources. More HMR data needs to be collected and it should be reported more frequently than quarterly to provide sufficient insight into affected water supplies.
4. DEP more effectively implement an ecosystem view of permitting, which considers cumulative impacts when approving mining permits. One way of establishing this approach would be to recommend every District Mining Office Manager or Permit Chief ensure receipt of the Prediction of Hydrologic Consequences and comprehensive, up to date baseline hydrological information before permit issuance.

#### **IV. Structural Effects of Mining**

Between 2008 and 2013, a total of 31,343 surface acres were undermined, representing a total of 6,744 surface properties undermined. (III-29, III-12). Despite a reduction over the last five years in the amount of surface acres undermined by longwall mining, which causes the highest numbers of subsidence related impacts, the number of reported structural and water supply effects did not decrease. (III-29).

A total of 389 effects were reported during the assessment period with 19 occurring at non-active mining operations. (IV-2). Two-hundred-and-thirty or 96.6% of the "Company Liable" effects occurred in association with longwall mining. (IV-6). It is important to remember that these numbers only tell part of the story and perhaps a small part of the story because they do not take into account damage to structures on properties owned by

the mining companies which were purchased before mining. So, the full extent of the damage to structures is unknown.

We do know that 176 of the 230 company liable structural effects, some with multiple problems, were located within either the tops of the hills, along the hillside slopes, or within the valley bottoms. And 69% of all company liable structural effects were located along hillsides. According to the report, the topographic relief of Western Pennsylvania creates conditions where subsidence effects on structures can be enhanced. (IV-11).

Accordingly, we ask that the CAC recommend

1. DEP consider hillsides areas of elevated risk for subsidence-related structural damage due to the topography in western Pennsylvania.
2. DEP recalculate the angle of influence to account for structural damage that may also be caused by mining, but not currently recognized by DEP.
3. DEP update the BUMIS database and ensure effects are accurately reported.
4. DEP issue enforceable orders for repair or replacement of structures when the company is found liable for the effect.

#### **V. Water Supply Impacts Caused by Mining**

During this assessment period, there were 855 reported effects to wells, springs, and ponds. (V-5). A total of 201 reported water supply effects were unresolved at the end of the assessment period, and only three of the 201 were given an interim status to indicate that liability was being assessed. (V-6). The status of the remaining 198 unresolved reported water supply effects could not be determined from reviewing DEP's records, so they are in limbo, either liability is not yet being assessed for those effects or this is another example of egregious data disorganization at DEP.

Regardless, once the Department determines that mining activity impacted the water supply or the operator accepts responsibility, then the Department should issue an order requiring the company to "promptly" restore or replace the water supply, regardless of whether or not the operator promises voluntary compliance. This ensures the company's compliance, and if there is non-compliance beyond 2 years after notification, which is the standard for promptness established by the Office of Surface Mining Reclamation and Enforcement, then the Department can enforce the order.

The report also found that company liable water supply effects can occur when a mine is in a non-active status and outside the Rebuttable Zone of Presumption (RPZ), which places the burden on the company to disprove they caused the water supply impact within a certain distance from the mine to the house. In fact, 51% of company liable water supply effects were outside the Rebuttable Zone of Presumption buffer.

The CAC should keep in mind that these are not just statistics; behind the 201 unresolved water supply effects and long resolution times are people who have significant problems with their water supplies for months or years.

Accordingly, we ask that the CAC recommend

1. DEP address the remaining 198 cases of reported water supply effects.
2. DEP issue enforceable orders for “prompt” repair or replacement of water supplies when the company is found liable for the impact.
3. DEP policy on the Rebuttable Zone of Presumption should be reformulated based on its own data of company liable effects outside the current buffer.

This report provides definitive proof that DEP is failing to uphold and enforce the laws it is responsible for and the CAC must demand more from the Department.