

PO Box 4023  
184 South Main Street  
Washington, PA 15301



P) 724.229.3550  
F) 724.229.3551  
www.coalfieldjustice.org  
info@coalfieldjustice.org

March 17, 2016

California District Mining Office  
Department of Environmental Protection  
Commonwealth of Pennsylvania  
Attention: Joel Koricich, District Mining Manager  
25 Technology Dr.  
California Technology Park  
Coal Center, PA 15423

**Re: 30841317 and NPDES No. PA0213527 Revision to Enlow Fork Mine Permit for Longwall Mining**

Dear Mr. Koricich,

The Center for Coalfield Justice respectfully submits the following comment on Consol Pennsylvania Coal Company's ("Applicant" or "Consol") permit revision application for Enlow Fork Mine Expansion ("Application"). The relevant Pennsylvania Bulletin Notice appeared as follows:

**30841317 and NPDES No. PA0213527. Consol Pennsylvania Coal Company LLC**, (1000 Consol Energy Drive, Canonsburg, PA 15317). To revise the permit for the Enlow Fork Mine in Morris and Richhill Townships, Greene County, Morris Township, Washington County and related NPDES permit to revise 3,956.0 underground and subsidence control acres from development only to longwall mining. No additional discharges. The application was considered administratively complete on January 15, 2016. Application received September 18, 2015.

This comment is timely filed pursuant to 25 Pa. Code § 86.32(a). On February 16, 2016 the final public notice was published in the *Observer-Reporter*.

The Center for Coalfield Justice is a Pennsylvania-incorporated not-for-profit organization with federal § 501(c)(3) status located at 184 S. Main Street, Washington, PA 15301. CCJ is a membership organization with a mission to "improve policy and regulations for the oversight of fossil fuel extraction and use; to educate, empower and organize coalfield citizens; and to protect public and environmental health." The Center for Coalfield Justice has nearly two thousand members and supporters in the area, many of which live in the immediate region of the Enlow Fork Mine operated by Consol.

The Department should deny and return the Application because it does not meet the criteria for permit approval. There are numerous technical deficiencies: the predicted impacts to streams are not described adequately, the prediction of the hydrologic consequences is incomplete, there is no indication the Applicant will protect existing and designated uses of surface waters, restoration activities are not proposed with sufficient certainty and specificity, and the proposed “wait and see” approach for stream impacts and restoration activities does not comport with DEP’s TGD TGD No. 563-2000-655.

The Department cannot issue the permit revision in accordance with applicable laws and regulations based on the gravely inadequate Application before it. The Department must deny the Application. In the event that it is not denied but is revised, the scope and significance of the necessary revisions merit a second public comment period. In the interim, the Department should issue the necessary deficiency letters to the Applicant.

**I. Impacts to groundwater and streams are not adequately described and the prediction of probable hydrologic consequences is critically deficient.**

In order to issue a permit for a surface or underground mine, the Department must determine, among other things, that “[t]he applicant has demonstrated that there is no presumptive evidence of potential pollution of waters of the Commonwealth.” 25 Pa. Code § 86.376(a)(3). *See also* 35 P.S. § 691.611 In other words, Consol must prove that pollution will not occur as a result of its mining activities. *Consol Pennsylvania Coal Company and Eighty-Four Mining Company v. DEP*, 2003 WL 22937013, \*2, EHB Docket No. 2002-112-L, (Pa. Env. Hrg. Bd. Dec. 1, 2003). Furthermore, the Department must ensure the protection of the hydrologic balance and prevent adverse hydrologic consequences. 25 Pa. Code § 89.36(a).

Reading over Module 8 of the Application, it is clear that the Applicant is essentially asking the Department to take a “wait and see” approach with regard to impacts to streams. The Applicant refuses to make realistic predictions of how mining will affect streams in the permit area. Instead, the Application asserts, “[a]s stated above, each stream has a unique combination of variables, thus making it difficult to compare streams that have been undermined previously to those currently not mined.” (8-6). Ultimately, the Applicant concludes that “[s]treams located above the permit expansion have both favorable and unfavorable variables. The potential for localized, mining-induced flow loss exists. However, the flow loss is expected to be temporary in nature and the designated uses of the streams are not expected to be affected.” (8-6). Notably, there is no mention here of existing uses and how those uses might be affected by mining activities. What follows throughout Module 8 and the remainder of the Application is a lot of speculation about

“potential” impacts, assurances that they will be temporary *if* they occur and a promise to notify DEP in the case of impacts.

DEP cannot issue the requested revision to the permit based on the above statements and the material in the Application. The information and analysis submitted to the Department is wholly inadequate and accordingly, it is impossible for DEP to make the determination that the Applicant “has demonstrated that there is no presumptive evidence of potential pollution of waters of the Commonwealth.” 25 Pa. Code § 86.37(a)(3).

Module 8 of this Application is emblematic of the problems discussed in the most recent Act 54 Report which 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. Tonsor ET AL., Univ. of Pitt., Act 54 Report on the Impacts of Underground Coal Mining (2008-2013), § VII, at 22-24 (2015).

The Applicant neglected to provide a full prediction of the probable hydrologic consequences in accordance with the regulatory requirements. The Applicant failed to provide a prediction of hydrologic consequences for each stream length that will be affected by mining, which is required pursuant to 25 Pa. Code § 89.35 (“The probable hydrologic consequences determination shall emphasize the anticipated responses of groundwater and surface water flow, its rate, direction and quality and quantity to the proposed underground mining activities.”). Additionally, the Applicant submitted Form 8.3A providing a Groundwater Inventory and very briefly discussed groundwater information requested in section 8.1 of the Application, but the cursory and abbreviated information<sup>1</sup> does begin to approach compliance with 25 Pa. Code § 89.35 by accounting for the anticipated responses of groundwater flow, its rate, direction, quality and quantity.

The Department's mining regulations, which themselves have the force of law, *e.g.*, *Thorpe v. Public Sch. Empl. Ret. Bd*, 879 A.2d 341, 350 (Pa. Cmwlth. 2005), require the Department to prevent pollution and the alteration of hydrologic balance, by ensuring that the activities proposed under the Application have been designed to protect the hydrologic

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<sup>1</sup> For example: “the amount of groundwater contributing to the base flow of a stream depends on the relationship between the streambed elevation and the elevation of the groundwater flow system.” (8-2). It is plainly insufficient to essentially respond “it depends” when prompted to explain this critical hydrologic relationship that will be affected by the proposed mining. This insufficiency is further underscored a few lines down on the same page when the Applicant states that “In the areas where full-extraction underground mining occurs, a temporary disruption of the groundwater flow system may temporarily shift the groundwater table. This lowers the zone of saturation to greater depths which can result in temporary dewatering of wells, springs, and streams.” (8-2).

balance and prevent hydrologic consequences in both the permit area and the adjacent areas. See 25 Pa. Code §§ 89.35 (prediction of hydrologic consequences), 89.36, 89.52(a), 86.37(a)(4) (protection of hydrologic balance); 52 P.S. 1406.9a(d) (preserving the statutory protections for waters of the Commonwealth under the Clean Streams law or any regulation promulgated thereunder by the Environmental Quality Board); 35 P.S. § 691.3 15(c) (An applicant must include a determination of the "probable hydrologic consequences of the operations, on and off the site of operation, with respect to hydrologic regime, quantity and quality of water in surface and ground water systems" and sufficient data so that the Department can make an assessment of the "probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability").

The Applicant failed to recognize and employ the correct standard for protecting surface waters. The Applicant stated that "Underground mining activities at CPCC shall be planned and conducted in a manner which minimizes adverse effects and maintains the value and foreseeable [sic] uses of streams, such as aquatic life, water supply and recreation." (8-5). Unfortunately for the Applicant the standard they are aiming to uphold is not the standard in the regulations, which require, among other things, that the Department to protect the *existing* uses of surface waters. 25 Pa. Code § 93.4c(a)(1)(i) (emphasis supplied). The Department is also required to make a final determination of existing use protection for surface waters as part of a final permit or approval action. 25 Pa. Code § 93.4c(a)(1)(iv). Additionally, the Department is required by 25 Pa. Code § 93.3 to protect the designated use of surface waters. Accordingly, the uses which must be upheld for streams in the proposed permit area are existing and designated uses, and not "the value and foreseeable [sic] uses of streams." (8-5).

Reviewing Table 8.9(a), it becomes clear that there are serious impacts to streams which have been predicted by the Applicant despite the copious amount of vague language regarding impacts to streams and potential restoration work in Modules 8 and 15. Of the 14 streams which will be undermined as part of this permit expansion, no impact is predicted for only one of those streams. For nine of the streams, "There is a potential for a temporary impact" and for the remaining four streams, "An impact is predicted." (Table 8.9(a)). The percentages of the watersheds that will be mined as part of this revision is significant as seven of the streams being undermined will have 100% of their watershed undermined. The other streams will see 22%, 60%, 69%, 74%, 79%, 91%, and 96% of their watersheds undermined. Accordingly, thirteen of the fourteen streams will have more than 60% of their watersheds undermined.

Of the 33 streams undermined as part of the E & F panels for Enlow Fork Mine, 19 of the 33 experienced flow loss, whether temporary or long term or merely "minor." And

augmentation was used or required by DEP for 16 streams. These are serious impacts, which raise questions about the serious potential for impacts in the revision area.

If the predicted impacts occur, even those which are described as “a potential for temporary impact” present a serious risk of harm rising to a level of disruption and damage that meets the definition of “pollution” under the Pennsylvania Clean Streams Law, which includes changes in stream flow and flow loss. 25 Pa. Code § 91.1; 35 P.S. § 691.1 (definition of pollution includes physical alteration of surface waters such as a diminution or deviation in flow); *see also UMCO Energy, Inc. v. DEP and Citizens for Pennsylvania's Future, Intervenor*, 2006 WL 2679893, \*32 & \*37 EHB Docket No. 2004-245-L (Pa. Env. Flrg. Bd. Sept. 5, 2006); *Forwardstown Area Concerned Citizens Coalition et al. v. DER and Lion Mining Company, Permittee*, 1995 WL 387642, \*3, EHB Docket No. 94-046-E (Pa. Env. Hrg. Bd. June 12, 1995); *Oley Twp. v. DEP*, 1996 WL 635277, \*14, EHB Docket No. 95-101- MG (Pa. Env. Hrg. Bd. Oct. 24, 1996) (Change in water level in wetlands that could compromise their ecological functions would constitute a violation of the Clean Streams Law) (*citing PUD No. 1 of Jefferson County v. Washington Department of Ecology*, 114 S.Ct. 1990 (1994) (diminution of water quantity constitutes pollution)).

## **II. Impacts to wetlands are unclear and the Application contradicts itself with regard to the nature of predicted and potential impacts and restoration work.**

The same “wait and see” approach for stream impacts is advanced for wetland impacts in Module 15 which posits that “potential” restoration work could result in a variety of outcomes, from no wetland impacts to temporary impacts to permanent impacts with the need for wetland mitigation. The Applicant ultimately concluded, “These wetlands may be impacted by the stream restoration activities but the actual impact and extent will not be known until specific stream sections are identified for restoration activities.” (15-6 – 15-7). With regard to those restoration activities, “CPC has performed modeling and predicted that subsidence induced pooling and changes in the streambed gradient *may* occur.” (15-7) (emphasis supplied). Here, the Applicant admits that subsidence modeling is not 100% accurate in predicting the exact nature of mining impacts. However, subsidence modeling is sufficiently accurate to allow DEP and the Applicant to determine where mitigation efforts might be necessary to try to address subsidence induced damage to streams. Thus, providing a superficial summary of the subsidence modeling results is not a prediction of the hydrologic consequences, which is required by the applicable law. Moreover, by merely listing the generally accepted stream remediation techniques in Module 15, the Applicant has not even attempted to provide the information requested by in the application prompts in Module 15, much less comply with the regulatory requirements, including those requirements found in the Dam Safety and Encroachments Act and Chapter 105.

In discussing subsidence modeling performed for streams within the full extraction area, the Applicant reveals that “[b]ased on the results of this modeling, four pooling area with water depths increasing greater than or equal to one foot are anticipated to occur along the length of Short Creek (40912).” (15-9). The Applicant then goes on to list four specific “Areas of Proposed Stream Restoration” along Short Creek. The discussion of potential remediation activities that appears on pages 15-10 through 15-11 of Application is a long list of potential activities and techniques that may employed. The Applicant then outlines the process for stream restoration activities; “CPCC will re-evaluate each restoration stream reach when the longwall is past the stream a distance equal to the depth of cover to document any notable difference between the predicted and actual subsidence profile. If the actual extent of pooling is similar to the predicted extent, and if the Department concurs with the proposed restoration methods, then CPCC will implement the stream restoration plan.” (15-11). This plan seems to suggest that DEP will be approving a “stream restoration plan” as part of this permit revision which is presumably part of the Application. Yet, there is no coherent stream restoration plan which is advanced in the Application. Rather, it merely lists all different kinds of potential restoration activities with zero information regarding which activities would be performed on each stream, where they would be performed on each stream segment, the likelihood of success, and any other useful information that could assist DEP in approving such measures as part of a plan. The Applicant should submit actual stream restoration plans for each of the streams listed in Table 8.9a where there is “potential for temporary impact” as well as those where an “impact is predicted” with detailed information on the nature of restoration activities that would need to be performed on the stream when predicted and potential impacts occur. If the subsidence modeling performed is sufficiently reliable to predict the areas of pooling along Short Creek, the Applicant should be able to provide the Department with information regarding other areas and impacts.

Alternatively, the Applicant has proposed that “[i]f the actual extent of subsidence differs substantially from that predicted then CPCC will submit a revised restoration plan to the department for approval. CPCC will perform mitigation work expeditiously in accordance with a schedule approved by the PADEP and PA Fish and Boat Commission in the post-mining meeting...CPCC will delineate all wetlands within and adjacent to the stream restoration work area.” This “wait and see” approach advanced by Consol is not feasible considering timelines for restoration activities in the Technical Guidance Document. If flow augmentation is required, augmentation will need to be commenced within 24 hours of de-watering per the Department’s TGD No. 563-2000-655 at 7, 13 and it is unclear how there will be enough time to have a “post-mining meeting” to discuss impacts, create stream remediation and restoration plans and have those plans approved by the Department all within a 24 hour time period.

The Applicant admits that “[l]oss of wetland hydrology would be expected in riparian wetlands adjacent to streams undergoing dewatering...” (15-7). Yet, the Applicant insists the “anticipated temporary nature of potential impacts” means there will not be major impairment of wetland resources and that potentially affected wetlands do not provide unique or critical functions to the ecosystem, with providing an explanation of why not. (15-8). However, reviewing Table 8.9 does not support such a rosy picture of potential impacts. Streams previously undermined as part of the Enlow Fork Mine have suffered impacts requiring extensive remediation work, raising questions about whether the vague phrase “potential for a temporary impact” captures the real threat to streams proposed to be undermined with this revision. The Applicant also stated, “In general, minor forms of stream restoration may be necessary within the following watersheds...” and went on to provide a long list of varying forms of minor stream restoration. (15-9) It is not appropriate for the Department to give the Applicant carte blanche to perform whatever forms of stream restoration it deems necessary outside of an approved stream restoration plan.

**A. The Department cannot authorize any Chapter 105 activities, even “minor” forms of stream restoration, based on the information submitted.**

Restoration plans are not properly presented considering the predicted impacts which include flow loss and pooling. The Department’s Technical Guidance Document No. 563-2000-655 provides, “Mining plans that are likely to result in mining induced flow loss should be supported by the following information: (A) Information demonstrating that flow will recover or be restored to the normal range of conditions either within one year or within a specific time period, without the need for continued supplementation by a maintenance dependent augmentation source. Inability to make such a demonstration will normally be considered presumptive evidence of potential pollution. (B) A mitigation plan describing all aspects of restoration work needed to restore stream flow to the normal range of conditions. (C) A flow augmentation plan for providing water of sufficient quality and quantity to maintain an affected stream’s existing and designated water uses for the time period demonstrated in accordance with paragraph IV.1.a)(iii)(A). The plan should provide for augmentation to commence within 24 hours of the occurrence of a mining induced flow loss. (D) A reclamation/restoration bond in an amount sufficient to ensure the completion of all necessary mitigation work, including operation of the approved flow augmentation system for the time period demonstrated in accordance with paragraph IV.1.a)(iii)(A).” TGD No. 563-2000-655 at 7. Such information is not present in the Application despite the fact that the mining plan is likely to result in mining induced flow loss. (Table 8.9a).

When asked to provide information “[w]here mining plans are predicted to result in mining induced flow loss in specific areas and Chapter 105 activities are proposed to

restore flow...”, the Applicant responded, “Not applicable. Mining induced flow loss is not predicted in specific areas and Chapter 105 activities are not proposed to restore flow.” (15-17). Yet, Table 8.9 predicts that “Flow is expected to become more intermittent” for at least two, potentially three or four streams within the permit area. It is easy to see that expecting flow to become more intermittent is merely a euphemism for flow loss. The Applicant seems to be using the most opaque or ambiguous language possible to circumvent the requirements of the permitting process and avoid providing sufficient information about the predicted impacts of its operations.

With regard to the Chapter 105 Requirements, the Applicant was asked to provide an “assessment of the probable hydrologic consequences of the proposed activities on the water quality and quantity, and the resident aquatic communities.” In response, the Applicant stated “If necessary, proposed stream restoration activities are anticipated to relieve [sic] pooling thereby restoring the instream habitat to a riffle/pool sequence. Habitat enhancement structures, bank stabilization measures, and riparian plantings are proposed to diversify the instream habitat and improve the streambank and riparian conditions. Therefore, it is anticipated that if these projects are needed they will improve water quality, enhance conditions for the aquatic community, and will not affect water quantity.” (15-19). This is an absolute farce. It is embarrassing that any DEP staff member would consider this response adequate to move the application beyond completeness review and into technical review. This is not a good faith attempt to comply with the Chapter 105 Requirements. The Applicant must provide an assessment of the probable hydrologic consequences of restoration work.

The Clean Streams Law and the Department’s mining regulations require that pollution and harm to the prevailing hydrologic balance be prevented, as opposed to predicted and mitigated. 35 P.S. § 691.611; 25 Pa. Code § 86.37(a)(3); 25 Pa. Code § 89.36(a). As explained by the Environmental Hearing Board, DEP’s responsibilities are as follows: “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.*, EHB Opinion, dated Sept. 5, 2006 at 82.

Not only has the Applicant failed to submit all of the required information to provide an adequate description of the predicted and/or potential subsidence-induced impacts to streams, it also failed to submit much of the information required by Module 15 of the Department’s Coal Mining Activity Permit application. DEP cannot seriously consider this

permit revision until it has all of the required information to make a decision in accordance with the laws and regulations it is obligated to follow.

### **III. The likelihood of stream restoration success is unclear and raises concerns about the efficacy of such activities.**

Notwithstanding the numerous technical deficiencies in the Application's description of impacts to streams and wetlands, there is no data that demonstrates that stream restoration successfully and adequately restores streams. Indeed, the most recent Act 54 report covering 2008-2013 studied stream restoration activities in Pennsylvania after streams were damaged by longwall and room-and-pillar mining techniques and questioned whether stream restoration could be effective at all. The report stated 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." Tonsor ET AL., Univ. of Pitt., Act 54 Report on the Impacts of Underground Coal Mining (2008-2013), § I, at 7 (2015). Accordingly, we remain concerned about the success of stream restoration activities on a long-term basis after a stream has experienced severe adverse impacts from subsidence due to mining operations.

The Act 54 report assessed the effectiveness of stream mitigation techniques and concluded that "water quality does not recover over time and pH and conductivity at flow loss sites remain elevated following mitigation." Tonsor ET AL., Univ. of Pitt., Act 54 Report on the Impacts of Underground Coal Mining (2008-2013), § VII, at 76 (2015). During the assessment, the University attempted to investigate whether mitigation techniques could restore the health of macroinvertebrate communities because "it is unknown if the mitigation measures (i.e. augmentation, grouting, liners, gate cuts) utilized by mining companies are effective in restoring the communities." *Id.* § VII, at 59. However, insufficient data precluded analysis of this aspect of stream recovery.

The report found that "95 streams had augmentation discharges installed along their channel and augmentation was active at 74 of these streams to maintain flow during or after mining." *Id.* § VII, at 76. The reliance on augmentation is troubling. Even though it seems that augmentation can keep aquatic life in a stream alive for a while, augmentation cannot be relied on permanently. For example, augmentation in one undermined stream was turned off in early 2011 to evaluate natural stream flow conditions. During the time augmentation was paused, the two most upstream surface water monitoring stations experienced zero flows. Although it was the dry season, precipitation was well above average during that time. Ultimately, DEP determined that "the stream, post-mining, does not flow to the same degree after similar precipitation amounts as it did pre-mining". *Id.* §VIII, at 7-8.

Two other concerns about augmentation involve water quality and water sources. The quality of water has a significant impact on a stream's ability to support aquatic life and its existing and designated uses, yet there are no standards for the water quality of the water used in the augmentation stream mitigation method. There is also potential for augmentation efforts to disrupt the hydrologic balance if water is being pumped from an aquifer to augment a stream at a rate that exceeds its recharge rate, or water is being taken from another stream beyond what may be necessary to maintain that stream's existing use and account for natural variability. These are issues that could occur in the same watershed or a different watershed, which could further complicate the situation.

The DEP recognizes that the broad range of mitigation measures used on streams affected by mining may not be successful in restoring those streams. *See* Pa. Dep't of Env'tl Protection, TGD No. 563-2000-655 at 17 (October, 8, 2005) (providing for compensation or mitigation of another stream in the event of restoration failure after 5 years). The Act 54 report's analysis of DEP stream investigations demonstrates that mitigation measures have failed. The report found that seven stream investigations had a final resolution status of "Not recoverable: compensatory mitigation required." In total, eight cases represent stream impacts that have not recovered from mining-induced flow loss. Tonsor ET AL., Univ. of Pitt., Act 54 Report on the Impacts of Underground Coal Mining (2008-2013), § VIII, at 5 (2015).

#### **IV. Applicant failed to complete Section 10.11b of the Application.**

Section 10.11b of Module 10 is incomplete with the Applicant's answer of "N/A". Even if there are no habitats of unusually high value in the area, the applicant must "Describe the measures which will be taken during the development and active phases of operation to minimize disturbances and adverse impacts to fish, wildlife and related environmental values, and achieve enhancement of the resources where practical. If enhancements measures are not proposed, explain why enhancement is not practical." This is a requirement pursuant to 25 Pa. Code § 89.74 (b). It is unclear how the Application survived completeness review with this glaring deficiency.

#### **V. Informal Public Conference Request.**

We respectfully request that the Department of Environmental Protection hold an informal conference regarding Consol Pennsylvania Coal Company's permit application to revise 3,956.0 underground and subsidence control acres from development only to longwall mining for the Enlow Fork Mine.

This request comes pursuant to 25 Pa. Code § 86.34(a), stating, "A person...may in writing, request that the Department hold an informal conference on an application for a permit." As required, this request briefly summarizes the issues or objections and states whether CCJ desires to have the conference conducted in the locality of the propose coal mining activities.<sup>1</sup> This request for an informal conference is timely made pursuant to 25 Pa. Code§ 86.34(a)(3).

The concerns outlined above are shared by many of CCJ's members. CCJ believes that Greene County residents deserve to have a forum to convey these issues to the Department and to have a meaningful response provided by the Department before the project moves forward. As a result, CCJ requests that the conference be conducted in the locality of the proposed activity, for example at the Morris Township Building at 473 Sparta Rd. Prosperity, PA 15329. Additionally, the meeting should be held at night so that working members of the public have the opportunity to attend.

Thank you for your consideration of this request and I look forward to your response.

Respectfully,

A handwritten signature in black ink, appearing to read "Caitlin McCoy". The signature is written in a cursive, flowing style.

Caitlin McCoy, Esq.  
Legal Director