

On September 19, 2013, Anthony Mining filed a Motion to Dismiss this appeal, arguing that the appeal is moot. The Commission did not rule upon this motion in advance of hearing, and the parties were permitted to argue this motion at hearing. A ruling upon the pending Motion to Dismiss is included in this final order.

This matter came on for hearing before the Commission on October 3, 2013. At hearing, the parties presented documentary evidence and examined witnesses appearing for and against them. After a review of the Record, the Commission makes the following findings of fact and conclusions of law:

FINDINGS OF FACT

1. Ms. Tina Patterson and her family reside at 13897 State Route 151 in Dillonvale, Jefferson County, Ohio. Ms. Patterson has lived in this home since 1992. The Pattersons' domestic water supply is obtained from a drilled well located on their property. The area surrounding the Pattersons' property has been extensively mined for coal, pursuant to various mining permits and over a long period of time. An abandoned underground mine is located directly beneath the Pattersons' property.

2. The water well that serves the Pattersons' property was drilled in 1980. The well was drilled to a depth of 115 feet, and intersects two coal seams (at depths of 60 and 80 feet). The driller's log shows that water was encountered at a depth of 80 feet, which is also the top of the #8 coal seam. Division Hydrologist Kyle Baldwin testified that the Pattersons' well produces from, or is significantly influenced by, an inundated (flooded) abandoned underground mine. In 1980, the production rate for the well was reported by the driller at 15 gallons per minute. Ms. Patterson testified that the well has, historically, produced an adequate supply for her household. Ms. Patterson also testified that, historically, she believed the well water to be of an adequate quality for her family's domestic use.

3. Previous mining in the vicinity of the Pattersons' property includes:

(a) Underground mining of the #8 coal by Florence Coal Company, pursuant to permit Jfn-124. This mine [the "Florence Mine"] was abandoned in 1949. (The Florence Mine is located directly beneath the Pattersons' property.)

(b) Underground mining of the #8 coal pursuant to permit Jfn-243. This mine was abandoned in 1959.

(c) Surface mining of the #8A coal and #8 coal by D&L Contractors pursuant to permit D-126. Mining pursuant to permit D-126 occurred between 1983 and 1995, and intercepted the abandoned underground Florence Mine (Jfn-124).

(d) Other historic mining in the larger vicinity of the Pattersons' property, including underground mine Jfn-88 and surface mine D-1063.

4. Coal mining and reclamation permit D-1173 was issued to Anthony Mining on September 16, 1998, and authorized Anthony to surface mine the #9, #8A and #8 coal seams. In or around 2004, the permitted area was expanded through an adjacent area application. This expansion moved the permit limits closer to the Pattersons' well. Permit D-1173 is a surface mining operation, encompassing approximately 475 permitted acres. The northwest boundary of permit D-1173 is approximately 400 feet from the Pattersons' well. Anthony was aware of previous mining in the vicinity of its permit, and Anthony's mining plan addressed the existence of abandoned underground mines and reclaimed surface mines in the area. Anthony's mining plan proposed to maintain a 50-foot offset distance from the abandoned underground Florence Mine (Jfn-124). Anthony's mining plan proposed to intercept a small portion of the abandoned underground Jfn-243 mine.

5. In 2000 and 2001 (before Anthony began mining in the vicinity of the Pattersons' property), Anthony Mining collected three water samples from the Pattersons' well ["the pre-mining water samples"]. The pre-mining water samples were collected as a requirement of Anthony's permit application.

6. The pre-mining water samples collected by Anthony as part of the permitting process established that the Pattersons' water supply had already experienced some affects from previous mining in the area. Results from the pre-mining water samples showed the Pattersons' water to be hard, with high specific conductivity.¹ However, the pre-mining samples did not indicate high levels of certain other constituents, such as iron and manganese.

7. As mining approached the Pattersons' property, and as a condition of permit D-1173, Anthony Mining collected water samples from the Pattersons' well on a quarterly basis. Anthony's monitoring of the Pattersons' well began in August 2004 and continued until February 2011.

8. Anthony began mining in the vicinity of the Pattersons' well in late 2004. This mining continued until late 2009 or early 2010. Division Hydrologist Kyle Baldwin sets forth in his Groundwater Investigation Report, that - beginning in 2005 - Division inspection reports showed increased pumping of water at Anthony's mine site. (*See Division Exhibit 4, pages 8 & 9 of 82.*) Mr. Baldwin concluded that, in or around 2005, Anthony's mining intercepted an underground mine, inundated with water. Mr. Baldwin specifically concluded:

Inspection reports place active mining on [Anthony's permit] D-1173 within 600' +/- of the [Pattersons' well] and within 50' +/- of the [abandoned underground Florence Mine] from late 2005 to early 2007 which is consistent with the timing of impact [to the Pattersons' well].

(*See Division Exhibit 4, page 10 of 82.*)

9. During the Summer of 2006, the Pattersons' well was dewatered. Measurements of the static water level in the well taken in June, August and October 2006 show that, at this time, the water level dramatically dropped, by approximately ten feet, from its pre-mining, and typical, levels. (*See attached Commission Figure 1.*²)

¹ At hearing, the Division Hydrologist Cheryl Socotch explained specific conductivity. Specific conductivity is the measure of water's ability to conduct electricity. This conductivity is based upon the amount of metallic ions that are dissolved in the water. The greater the dissolved metals, the greater the conductivity. Specific conductivity is closely related to total dissolved solids (TDS). TDS reflects the amount of salts and minerals dissolved in water. Test results for specific conductivity may be converted to approximate TDS levels.

² As part of its review of the evidence, the Commission has charted the results of all water samples introduced into evidence. This includes results reported by Anthony Mining, as well as results reported by the Division during the Baldwin investigation. (The Commission specifically distinguishes the samples collected by Anthony from the samples collected by the Division.) Commission Figure 1 charts the static water levels in the Pattersons' well.

10. The Division, through its hydrologist Kyle Baldwin, concluded that the sharp drop in the Patterson well's static water level in the Summer of 2006 was due to Anthony's interception of the abandoned underground Florence Mine, which mine was inundated with water.

11. In August 2006, Ms. Patterson contacted Anthony Mining relative to the loss of water in her well. Beginning in August 2006, Anthony provided a temporary water supply (a water buffalo) to the Pattersons. By late 2006, the water level in the Pattersons' well had begun to recover. In November 2006, Anthony removed the temporary water supply. The Pattersons then resumed use of their well.

12. Upon resuming use of the well, Ms. Patterson testified that she began experiencing water quality issues. She testified that the water was sometimes discolored (sometimes orange and sometimes black) and sometimes carried a foul odor. Ms. Patterson contacted Anthony Mining on numerous occasions relative to these water quality concerns.³ On one occasion, a representative of Anthony Mining installed a sediment filter on the Pattersons' well. This filter did not resolve the water quality issues. Anthony encouraged Ms. Patterson to "give the water time," suggesting that - with time - the water quality would improve on its own.

13. Water samples collected by Anthony Mining from the Pattersons' well after Anthony began mining in the vicinity of the well (*i.e.*, after 2004), and particularly after the well was dewatered in 2006, show significant increases in iron, manganese, sulfates, suspended solids and total hardness, as compared with the pre-mining samples collected in 2000 and 2001 (as shown in the table below). The water's specific conductivity decreased after mining, as compared to the pre-mining samples. (*See attached Commission Figures 2 - 7, and the following table.*⁴)

³ Anthony Mining had contracted with Hamilton & Associates to conduct the quarterly monitoring of the Pattersons' well. Some contacts, relative to water quality issues, may have been communicated by Ms. Patterson to a representative of Hamilton & Associates, rather than directly to Anthony Mining.

⁴ Data used in this table is taken from Division Exhibit 4, pages 14 - 48 of 82, and from the Division's Supplement to the Record, pages 6 - 17. The table includes the values of samples collected: (1) by Anthony Mining, as part of its permitting and monitoring program, and (2) by the Division, as part of the Baldwin investigation. The data contained in this table is shown graphically in Commission Figures 2 - 7, attached to this decision.

Constituent	Commission Figure	Pre-Mining Levels (2000-2001) (averaged)	2007 - 2011 Levels (averaged)	Percentage Increase/Decrease
Total Iron (Fe) (mg/L)	2	0.06	4.00	over 100% (increase)
Total Hardness (as CaCO ₃)	3	451	690	53% (increase)
Specific Conductivity (µS/cm) (indicator of Total Dissolved Solids)	4	2367	1493	(37%) (decrease)
Manganese (mg/L)	5	0.12	0.40	over 100% (increase)
Total Suspended Solids (TSS) (mg/L)	6	8	97	over 100% (increase)
Sulfates (mg/L)	7	147	239	63% (increase)

14. The increase of metals and minerals in a water supply, generally, is not a health concern, but may affect the water's color, taste and odor. High levels of iron will discolor water, turning water an orange color.⁵ High levels of manganese will discolor water, turning water a black color. As Anthony's mining approached the Pattersons' well, the iron and manganese levels in the well's water clearly increased above the levels reflected in pre-mining samples. (*See Commission Figures 2 & 5.*)

15. Ms. Patterson testified that Anthony Mining was unresponsive to her concerns regarding the degradation of her well's water quality. Therefore, in early 2009, Ms. Patterson contacted Tri-State Water Consultants (a water treatment company) ["Tri-State"]. Tri-State tested the Pattersons' water, and recommended the installation of a Hague WaterMax treatment system. This system was sold to Ms. Patterson as a "package," including a water softening unit and a reverse osmosis ["R/O"] appliance. The equipment and installation cost to Ms. Patterson was \$5,000. While the system was sold to Ms. Patterson as a package, Tri-State attributed \$3,700 of the cost to the water softening unit, and \$1,300 of the cost to the R/O appliance.

16. Currently, all water utilized by the Patterson family is treated by the water softening unit. The R/O appliance is mounted under the kitchen counter, and produces water through a separate spigot at the kitchen sink.

⁵ Division Hydrologist Socotch testified that iron levels in excess of 1.0 mg/L will discolor water, turning the water orange. In 2000 - 2001, prior to Anthony's mining in the vicinity of the Pattersons' property, the level of iron in the Pattersons' water ranged from 0.03 to 0.11 mg/L. Monitoring data collected by Anthony, beginning in 2004, show iron levels as high as 19.75 mg/L (on February 20, 2007), with the average iron level (between February 2007 and September 2011) being 4.00 mg/L. (*See Commission Figure 2.*)

17. The water treatment system was installed at the Pattersons' home in March 2009. Samples of the untreated well water collected by Anthony Mining in March 2009 show very high levels of iron and manganese in the Pattersons' water supply. Suspended solids, total hardness and sulfates were also elevated in March 2009, as compared to pre-mining levels (collected in 2000 and 2001). However, in March 2009, the water's specific conductivity was actually lower than pre-mining levels.

18. After the treatment system was installed, Ms. Patterson contacted Anthony Mining regarding reimbursement for the costs associated with the water treatment system and its installation. Anthony Mining indicated that it would not pay for this treatment system. On November 25, 2009, Ms. Patterson contacted the Division regarding Anthony's responsibility to reimburse her for the costs associated with the purchase and installation of the treatment system.

19. As part of her notice of appeal to the Commission, Ms. Patterson asserted that she is encountering additional costs associated with the operation and maintenance of the installed water treatment system. In this regard, Ms. Patterson identified (1) filter costs, and (2) the cost of salt that must be added to the treatment system. With regards to the cost of salt, Ms. Patterson asserts that the system utilizes about one 40-pound bag of salt per week, at a cost of \$3.99 to \$4.99 per bag. Ms. Patterson attached to her notice of appeal a receipt from a Lowe's store, showing the purchase of four 40-pound bags of salt pellets, at a cost of \$3.89 per bag. No receipt was submitted for filter costs.

20. Over a twenty-five month period, between November 25, 2009 and December 20, 2011, Division Hydrologist Kyle Baldwin conducted a groundwater investigation of the Pattersons' well. Mr. Baldwin concluded that Anthony Mining's operations had initially degraded the quality of the Pattersons' water supply. However, Mr. Baldwin also concluded that the water quality had returned to its pre-mining conditions. Mr. Baldwin's report recommended in part:

1. Anthony Mining Co., Inc. is to reach an agreement with the owner of [the Pattersons' well] for reimbursement of all expenses incurred for the equipment and installation of the water treatment system.

2. Reimbursement for long term maintenance of the water treatment system is not recommended as the water quality has returned to premining conditions.

(See Division Exhibit 4, page 10 of 82.)

21. On January 4, 2012, the Division Chief adopted the conclusions of the Baldwin Report, finding:

[The Division has] determined that the water problems you are experiencing are a result of mining activities on [Anthony's] permit D-1173. The impact to your well was temporary as current sample data reflects water quality that is similar to premining conditions.

(See Division Exhibit 4, page 1 of 82; emphasis in original.)

22. Anthony Mining disagreed with the Chief's conclusion that Anthony's mining had degraded the quality of the Pattersons' water supply. On March 5, 2012, Anthony Mining requested informal review of the Chief's January 4, 2012 decision. Informal review included: (1) a meeting between Division staff and Anthony Mining, which occurred on June 15, 2012, (2) telephone contact between the Division and Ms. Patterson, (3) telephone contact between the Division and Tri-State (the company that sold and installed the Pattersons' water treatment system), (4) submission of a statement from Tri-State regarding the purpose of a R/O appliance (*see Division's Exhibit 3*), and (5) review of the Baldwin Report.

23. As part of the Division's informal review of the Pattersons' groundwater complaint, Division Supervising Hydrologist Cheryl Socotch reviewed the Baldwin Report. Ms. Socotch testified that she agreed with many of the general conclusions of the Baldwin Report, but that she did **not** agree with Mr. Baldwin's conclusion that the Pattersons' water supply had fully recovered and had returned to its pre-mining conditions. In this regard, Ms. Socotch particularly noted that levels of certain constituents remained higher than reflected in pre-mining samples, and that there was great variability in some reported levels.⁶

⁶ The iron, manganese, total hardness and sulfates results reported by Anthony differ significantly from the results reported by the Division for samples collected during the same period of time. Furthermore, Anthony's values from samples taken on May 8, 2008, November 20, 2008, March 26, 2010 and February 17, 2011 are extremely uncharacteristic of the water quality otherwise reported over an eleven-year period. This suggests some collection, testing, chain of custody, and/or reporting problems with regard to Anthony's water sampling protocol or analyses. The uncharacteristic sample results reported by Anthony in 2008, 2010 and 2011 likely contributed to Division Hydrologist Cheryl Socotch's conclusion that - following mining - the Pattersons' water quality showed high degrees of variability.

24. Test results from the Pattersons' well indicate that, as recently as September 15, 2011, the water still showed elevated levels of iron, manganese, sulfates and total hardness, when compared with pre-mining samples.

25. On July 31, 2012, the Division Chief issued his decision following informal review. The Chief concluded:

... the iron concentration had increased significantly in comparison to pre-mining levels and the hardness concentration continues to fluctuate considerably, while the sulfate and total dissolved solids levels were already elevated from previous mining in the area and appear consistent with pre-mining concentrations. While it is my understanding that a Hague *WaterMax*® softening system was installed in order to reduce elevated levels of iron and hardness which would account for the associated problems the [Pattersons] were experiencing, there is insufficient information and data available or provided to support the addition of the R/O system as a direct result of the impact to the water supply from temporary diminution from the current mining.

(*See Appellant's Exhibit 2, page 2.*) The Division Chief instructed Anthony Mining to:

... reimburse Tina Patterson for \$3700 to cover the cost for the purchase and installation of the *WaterMax*® water treatment system necessary to reduce the elevated levels of iron and hardness in the Patterson well that developed following [Anthony's] interception of the water bearing unit supplying water to their residential well.

(*Emphasis added; see Appellant's Exhibit 2, page 2.*)

26. On September 17, 2012, the Division, for the second time, instructed Anthony Mining to reimburse Ms. Patterson in the amount of \$3,700 for the cost of the installation of the water softening unit on her domestic water supply. Then, on June 14, 2013, the Chief gave a third notice to Anthony, via the issuance of Chief's Order 7354. Chief's Order 7354 contains the following mandate:

Based upon the foregoing Findings of Fact and Conclusions of Law IT IS HEREBY ORDERED THAT within thirty days (30) of actual or constructive receipt of this Order, Anthony Mining Company shall reimburse Mrs. Tina Patterson for the cost of the Hague WaterMax system installed to treat the elevated metals present in the water supply as a result of the mining operations. This reimbursement will be in the amount of \$3700, the cost of the purchase and cost of the system necessary to treat the elevated metals.

Failure to comply with this order may result in the suspension and/or revocation of coal mining Permit Number D-1173.

(See Appellant's Exhibit 1, page 3.)

27. On June 27, 2013, counsel for Anthony Mining mailed a check in the amount of \$3,700 to Ms. Patterson, which check was, thereafter, cashed.⁷

28. On July 11, 2013, Ms. Patterson filed a notice of appeal from Chief's Order 7354 with the Commission. Through this appeal, Ms. Patterson is seeking reimbursement in the amount of \$1,300 for the cost of the R/O appliance installed as part of her water treatment system. In her appeal, Ms. Patterson also cites certain operating and maintenance costs, including filter costs and the cost of salt associated with the treatment system. *(See Finding of Fact # 19.)*

⁷ On two occasions (on June 7, 2013 and again on June 27, 2013), Anthony Mining sent releases to the Pattersons, relating to the replacement of their water supply. The Pattersons refused to sign either of these releases.

RULING UPON MOTION TO DISMISS

On September 19, 2013, Anthony Mining filed a Motion to Dismiss this appeal as moot. Anthony asserts that, by accepting and cashing a check from Anthony Mining in the amount of \$3,700 (which reimbursed Ms. Patterson for the cost of the water softening unit, but not for the cost of the R/O appliance), Ms. Patterson has forfeited her right to appeal Chief's Order 7354.

The parties were permitted to argue Anthony's motion at hearing. At hearing, the Division declined to join in Anthony's motion, and Ms. Patterson contested Anthony's motion.

While the evidence at hearing revealed that Ms. Patterson did receive payment from Anthony in the amount of \$3,700, the evidence also established that Ms. Patterson refused to sign a settlement agreement, or release, relative to her water supply.

Ms. Patterson's appeal of Chief's Order 7354 is an administrative appeal, set in the regulatory arena. Through the issuance of Chief's Order 7354, the regulatory authority (the Division) required Anthony to take certain actions consistent with both Ohio law and Anthony's mining permit.

This case is not simply a dispute between Anthony Mining and the Pattersons. While Ms. Patterson may benefit from the Division's issuance of Chief's Order 7354, the replacement of the Pattersons' water supply is a regulatory matter. Thus, this appeal involves the state's enforcement authority vis-à-vis a regulated entity. Moreover, agreements reached between a landowner and permitted mine operator cannot alter the operator's ultimate responsibilities under the law or under its permit.

In consideration of the foregoing, the Commission hereby **DENIES** Anthony Mining's Motion to Dismiss, and will proceed to consider this appeal on its merits.

DISCUSSION

Coal mining operations in Ohio are conducted pursuant to permits issued by the Ohio Division of Mineral Resources Management. Such operations are regulated in accordance with Ohio's mining laws.

This discussion is subdivided into the following parts for clarity:

- A. The requirement to replace an affected water supply.
- B. The required quality of a replacement water supply.
- C. "Replacement" of an affected water supply through treatment.
- D. Evidence of contamination of the Pattersons' water well by Anthony Mining.
- E. Anthony Mining's responsibility to reimburse Ms. Patterson for the installed water treatment system.
- F. Anthony Mining's responsibility to reimburse Ms. Patterson for the operation and maintenance costs associated with the installed water treatment system.
- G. Remand for determination of whether the installed treatment system is a valid replacement (downstream sampling and analyses).
- H. Remand for determination of operation and maintenance costs, and the period of reimbursement.
- I. Timeliness of resolution.

A. THE REQUIREMENT TO REPLACE AN AFFECTED WATER SUPPLY:

Ohio Revised Code ["O.R.C."] §1513.162(A) provides:

The operator of a coal mining operation shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source where the supply has been affected by contamination, diminution, or interruption proximately resulting from the coal mining operation and shall reimburse the owner for the reasonable cost of obtaining a water supply from the time of the contamination, diminution, or interruption by the operation until the water supply is replaced.⁸

⁸ The federal Surface Mining Control and Reclamation Act of 1977 ["SMCRA"] is applicable to all coal mining operations within the United States. In accordance with SMCRA, the individual states may regulate coal mining within their borders, as long as the states' mining and reclamation laws are "at least as stringent as" the federal mining and reclamation laws found in SMCRA. (*See 30 CFR 732.15 and 30 CFR 801.4.*) In Ohio, the Division of Mineral Resources Management is the state regulatory agency with primary authority over the regulation of mining. Ohio's law on water replacement is found at O.R.C. §1513.162, and contains language virtually identical to the federal law found at 30 U.S.C. 1307(B). Therefore, Ohio's law on water replacement is considered "as stringent as" the federal law.

Ohio's statute places an absolute obligation upon "[t]he operator of a coal mining operation [to] replace [a] water supply . . . where the supply has been affected by contamination, diminution, or interruption proximately resulting from [a] coal mining operation . . . ". The obligation is to return the water supply to the condition that existed prior to mining.

In Ohio, the Division has also established Procedure Directives ["PDs"], which set forth additional guidelines for the replacement of water supplies affected by mining operations.⁹

B. THE REQUIRED QUALITY OF A REPLACEMENT WATER SUPPLY:

Pursuant to O.R.C. §1513.162(A) and O.A.C. §1501:13-9-04(P), coal mine operators must replace affected water supplies.¹⁰

⁹ Procedure Directives ["PDs"] are developed by the Division to provide information and guidance to the Division staff, the regulated industry and the public. PDs describe the manner in which the Division will interpret and apply Ohio law. PDs do not carry the weight of enacted statutes or promulgated rules. However, these directives provide useful information to operators and citizens, and strive to ensure consistent application and enforcement of Ohio law. (*See Brad Fisher v. Division & American Energy Corp.*, case no. RC-09-012 [August 5, 2010], at page 12; *Murray Energy Corp., et al vs. Division & Oxford Oil Company*, case no. RC-11-006 [October 6, 2011], at page 12.) The Ohio coal mining laws that address water replacement (O.R.C. §1513.162(A) and O.A.C. §1501:13-9-04(P)) are very general, and do not articulate specific replacement procedures. Nor does Ohio law articulate a specific process for determining whether water replacement has been successfully achieved. To provide guidance, the Division issued PD Technical 2006-01 in 2006 and PD Regulatory 2013-01 in 2013. Both of these PDs address the replacement of water supplies affected by mining operations. And, both PDs are instructive regarding the Division's interpretation of the parameters of O.R.C. §1513.162(A), and its application to this case.

¹⁰ O.A.C. §1501:13-9-04(P) provides:

(P) Water rights and replacement.

(1) Any person who conducts coal mining operations shall:

(a) Replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source, where the water supply has been affected by contamination, diminution, or interruption proximately resulting from the coal mining operations; and

(b) Reimburse the owner for the reasonable cost of obtaining a water supply from the time of the contamination, diminution or interruption by the operation until the water supply is replaced.

(2) The hydrologic information required in paragraphs (B) to (G) of rule 1501:13-4-04 * * * shall, at a minimum, be used to determine the extent of the impact of mining on ground and surface water.

Correspondingly, pursuant to SMCRA, the federal regulations at 30 C.F.R. 717.17(i) provide:

(i) *Water rights and replacement.* The permittee shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source where such supply has been affected by contamination, diminution, or interruption proximately resulting from surface coal mine operation by the permittee.

The Division's PDs specifically provide that an affected water supply must be replaced with a supply that is **comparable** in terms of **quality**, quantity and duration to the supply that was developed before mining. Specific to water quality, the PDs provide:

The water quality of the replacement supply must meet or exceed the premining quality and must not restrict or limit the premining use.

(PD Technical 2006-01, page 2; PD Regulatory 2013-01, page 4.)

To determine the quality parameters that replacement supplies must meet, O.A.C. §1501:13-9-04(P)(2) states:

The hydrologic information required in paragraphs (B) to (G) of rule 1501:13-4-04 ... shall, at a minimum, be used to determine the extent of the impact of mining on ground and surface water.

To ensure that the quality of a replacement water supply is comparable to the pre-mining supply, a pre-mining water quality "baseline" must be established. To this end, O.A.C. §1501:13-4-04(D) requires that all mining permit applications include the results of water samples taken **before** mining commences in an area.

The results from such pre-mining water samples establish a "quality baseline" for any potentially-affected water supplies. The quality of a replacement water supply must meet, or exceed, the quality reflected in these pre-mining samples. *(See PD Technical 2006-01, page 2; PD Regulatory 2013-01, page 4.)*

In this case, Anthony collected three pre-mining samples from the Pattersons' well. These pre-mining samples were collected in 2000 and 2001. Anthony submitted these results to the Division as part of its permit application.

Therefore, in this case, Anthony must provide the Pattersons with a replacement water supply of comparable quality to the sample results collected by Anthony in 2000 and 2001.

C. "REPLACEMENT" OF AN AFFECTED WATER SUPPLY THROUGH TREATMENT:

The Division's PDs acknowledge that, in appropriate circumstances, water treatment systems may be installed as a method of remediating or replacing an affected water supply.¹¹

The PDs also anticipate that, in some cases, a landowner may obtain a replacement water supply (or modify an affected supply through treatment) on the landowner's own initiative. The PDs specifically address the permittee's responsibilities in such circumstances:

If, by the time the chief determines that a water supply has been adversely affected by a mining operation, the landowner has already obtained a permanent replacement supply on his/her own initiative, the chief will order the permittee to reimburse the landowner for the reasonable and customary costs of obtaining the permanent water supply.

(PD Regulatory 2013-01; see also PD Technical 2006-01, page 6.)

Disputes as to the reasonableness of costs incurred in replacing, or treating, an affected supply will be decided by the Division Chief. *(See PD Technical 2006-01, page 7; PD Regulatory 2013-01, page 8.)*

D. EVIDENCE OF CONTAMINATION OF THE PATTERSONS' WATER WELL BY ANTHONY MINING:

The evidence in this appeal revealed that Ms. Patterson's domestic water supply was affected by Anthony Mining in two respects: (1) the Pattersons' well was dewatered in August of 2006, and (2) once the water returned (in late 2006), the water showed elevated levels of certain constituents tested under Anthony's required monitoring program.

¹¹ PD Technical 2006-01 provides at page 5:

If a water treatment system is necessary, the permittee will arrange for, and bear all costs associated with the installation of an appropriate system capable of producing water that meets the quality and quantity requirement of Ohio law and rules.

Similarly, PD Regulatory 2013-01 provides at page 6:

If a water treatment system is necessary to meet premining water quality parameters, the permittee will arrange for, and bear all costs associated with the installation of an appropriate system capable of producing water that meets the quality and quantity requirements of this PD.

The Baldwin Report concluded that Anthony's surface operations intercepted an abandoned underground mine sometime in 2005 or 2006. The Florence Mine (located directly beneath the Pattersons' property) was abandoned in 1949, and was determined to be inundated with water in 2005 or 2006. In fact, the Division hydrologists agree that the water supplying the Pattersons' well is drawn, either directly or indirectly, from the underground Florence Mine "pool." Anthony presented no evidence to refute this finding.

Regardless of the Baldwin-opined cause of the change in the Pattersons' water quality, it is clear that the Pattersons' water quality was, indeed, degraded after Anthony mined in the area of this well. The timing of this degradation establishes a proximate relationship between Anthony's mining and the Pattersons' water quality issues. (*See Division Exhibit 4, pages 8-9 of 82.*)

After dewatering occurred in August 2006, the static water level (*i.e.*, the elevation of water) in the Pattersons' well recovered. Thus, by late 2006, the Pattersons resumed the use of their well as the sole source of water to their home. However, Ms. Patterson testified that the well water that "returned" in late 2006 was sometimes discolored and often carried a foul odor.

Water samples collected by Anthony from the Pattersons' well establish that iron and manganese levels in the water supply spiked dramatically after Anthony began mining in the area, and particularly after Anthony's presumed interception of the Florence Mine.¹² Levels of other constituents, such as sulfates and total hardness, also increased during this time period.

¹² While Anthony presented no evidence at hearing, the Commission notes that page 65 of Division's Exhibit 4 reflects information obtained by the Division from Anthony during a telephone conversation in November of 2009. The Division's notations suggest that Anthony believed that its mining could not have affected the Pattersons' well, as the Pattersons' well is located "up dip" of Anthony's mining (*i.e.*, the Pattersons' well is situated at a higher elevation than Anthony's mine). The suggestion is that, as water generally runs "downhill," Anthony's mining could not have affected a water supply situated "uphill" from its mining. However, where a mining operation intercepts and dewateres an abandoned underground mine that is providing, or influencing, a water well, the fact that active coal mining is occurring at a lower elevation than the well (*i.e.*, the fact that the mining is occurring "downhill" of the well) does not preclude a determination that mining may affect the "up dip" well. Interception of an abandoned underground mine pool can lower the water level in the mine pool. This lowering of the water level in the underground mine pool may result in the dewatering of water wells that draw from (or are hydraulically influenced by) the underground mine pool. Therefore, the dewatering of a mine pool may result in the dewatering of water wells, even if these wells are located "up dip" of the surface mining that intercepted the underground mine pool. There can be no dispute that Pattersons' water quality degraded after the dramatic drop in static water level that occurred in 2006. The 2006 lowering of the static water level in the Pattersons' well was proximately caused by Anthony' mining activities. While all of the causes for the degradation of the well's water quality may not be known, the Division put forth the opinion that the abandoned Florence Mine was oxidized when it was dewatered. Division Hydrologist Kyle Baldwin further opined that oxidized abandoned mine works are associated with degraded water quality. (*See Division Exhibit 4, page 9 of 82.*)

E. ANTHONY MINING'S RESPONSIBILITY TO REIMBURSE MS. PATTERSON FOR THE INSTALLED WATER TREATMENT SYSTEM:

Where a landowner has obtained a replacement water supply (or modified an affected supply through treatment), the permittee is responsible to reimburse the landowner for the reasonable and customary costs of obtaining the replacement supply or treatment system. (*PD Regulatory 2013-01; see also PD Technical 2006-01, page 6.*)

Ms. Patterson testified that, beginning in late 2006, she attempted to discuss her water quality issues with Anthony Mining or its representatives. Ms. Patterson testified that Anthony was either unresponsive, or simply encouraged her to "wait," suggesting that her water quality would improve on its own.^{13/14}

After waiting for more than two years, Ms. Patterson contacted a water treatment company that tested her water and recommended a treatment system.¹⁵ Ms. Patterson followed the recommendations of the treatment company, and a water treatment system was installed in March of 2009.

¹³ Anthony is required by its permit, and through its regulatory responsibilities, to immediately address water complaints. This includes providing a temporary water supply to a complainant within 48 hours. This time requirement is absolute, and applies even if Anthony contests its ultimate responsibility for the diminution, interruption or contamination of the supply. The fact that Anthony had provided Ms. Patterson with a temporary water supply between August and November of 2006 (in response to Ms. Patterson's dewatering complaint) **did not relieve** Anthony of its responsibility to again address Ms. Patterson's water complaint when she approached Anthony with a separate water **quality** complaint in late 2006. Anthony had an absolute responsibility to address Ms. Patterson's water quality issue.

¹⁴ The Commission finds it significant, and frankly puzzling, that - for reasons that are not obvious and that directly contradict a permittee's absolute obligation to "immediately" provide temporary water - Division Hydrologist Kyle Baldwin, in his report (at page 10 of 82), cited the fact that Anthony had supplied the Pattersons with temporary water in August of 2006 as **evidence** to support a finding that Anthony's mining **had** degraded the Pattersons' well. Mr. Baldwin's position ignores the absolute obligation placed upon a permittee to provide temporary water upon complaint, regardless of "proximate causation." Conclusions, such as those expressed by Mr. Baldwin, provide a **disincentive** to coal mining operators to comply with their permitting and regulatory responsibilities. While it is true that - based upon the facts of this case - the Commission believes that Anthony's mining activities **did** affect the quantity, and eventually the **quality**, of the Pattersons' water supply, Anthony's provision of a temporary supply in August of 2006 in no way **ESTABLISHES** this fact. Mr. Baldwin's suggestion that Anthony's provision of a temporary water supply in 2006 somehow **ESTABLISHED** that Anthony's mining degraded the Pattersons' water **quality**, or that Anthony's provision of the temporary supply suggests some "admission of guilt," shows a total misunderstanding (by the regulatory authority) of a permittee's regulatory and permitting responsibilities with regards to water complaints.

¹⁵ Significantly, water samples collected by Anthony Mining during the same period (in early March 2009) showed levels of constituents such as iron, manganese, sulfates and total hardness, that exceeded pre-mining levels.

The water treatment system installed in March 2009 cost Ms. Patterson \$5,000. The water treatment system included a water softening unit (at a cost of \$3,700) and a reverse osmosis ["R/O"] appliance (at a cost of \$1,300). After this system was installed, Ms. Patterson testified that she again attempted to contact Anthony Mining, now regarding reimbursement for the costs that she had incurred. Ms. Patterson testified that Anthony refused to reimburse her for the cost of the treatment system. Anthony produced no evidence to refute this testimony.

When Division Hydrologist Kyle Baldwin investigated the Pattersons' water complaint, the water treatment system had already been installed at the Pattersons' home. The Baldwin Report, issued in December 2011, recommended that Anthony Mining "reach an agreement" with Ms. Patterson for the "reimbursement of all expenses incurred for the equipment and installation of the water treatment system."

The Chief adopted the Baldwin Report on January 4, 2012, specifically finding:

We have determined that the water problems you are experiencing are a result of mining activities on [Anthony's] permit D-1173. The impact to your well was temporary as current sample data reflects water quality that is similar to premining conditions.

(Emphasis in original.)

Anthony Mining disagreed with the Division's conclusion that Anthony had degraded the Pattersons' water supply, and requested informal review of the Chief's January 4, 2012 decision. As part of this process, Mr. Baldwin's Report was reviewed by Supervising Division Hydrologist Cheryl Socotch. As mentioned previously, Ms. Socotch concluded that the Pattersons' water supply had not returned to pre-mining quality levels, as was suggested by Mr. Baldwin. Thus, Ms. Socotch concluded that the Pattersons' water supply required continued treatment.

The levels of iron, manganese and total hardness in the Pattersons' water remained above pre-mining levels during the period under review. Evidence presented to the Commission suggests that the water softening unit could treat constituents such as iron, manganese and total hardness. In fact, in its July 31, 2012 response to Anthony's request for informal review (*see Appellant's Exhibit 2, page 2*), the Division acknowledged that the Hague WaterMax softening system could effectively reduce iron and total hardness levels.

However, the evidence also established that post-mining sulfates levels were higher than the pre-mining sulfates levels. No evidence was presented regarding an effective treatment for elevated sulfates. It appears that no consideration was given to the question of whether the water softening unit, and/or the R/O appliance, would actually treat elevated sulfates.

Astonishingly, there was no evidence presented that the Division has ever tested the Pattersons' treated water supply. Thus, the Division has never confirmed that the Pattersons' water supply has been properly and effectively "replaced." This is so, even though the Division's PD (in effect during the entire two-year period that it took Mr. Baldwin to investigate the Pattersons' water complaint) **requires** a Division hydrologist to obtain a sample of the replacement water supply for analysis, as a means of verifying successful replacement. This obligation to sample a replacement supply existed under the 2006 PD, and continues to exist under the 2013 PD. (*See PD Technical 2006-01, page 8; PD Regulatory 2013-01, page 10.*)

During informal review, the issue of whether it was reasonable to require Anthony to reimburse Ms. Patterson for the cost of the **R/O appliance** (installed at her kitchen sink) came into question. Evidence produced at hearing established that the primary purpose of the R/O appliance is to reduce levels of total dissolved solids in a water supply, which could include sulfates not reduced by a softening unit.

The evidence established that the water softening unit should treat elevated iron, manganese and hardness. However, no testing was done to determine how effectively the water softening unit has treated the Pattersons' water supply. Additionally, no evidence was presented to establish whether the water softening unit actually treats elevated sulfates. Likewise, no evidence was presented as to what effect the R/O appliance might have upon the water supply, or specifically as to whether the R/O appliance would correct elevated sulfates levels.

Specific conductivity levels have remained stable, and have even reduced, following Anthony's mining. Therefore, there is no need to treat for this particular water characteristic.

F. ANTHONY MINING'S RESPONSIBILITY TO REIMBURSE MS. PATTERSON FOR THE OPERATION AND MAINTENANCE COSTS ASSOCIATED WITH THE INSTALLED WATER TREATMENT SYSTEM:

Ms. Patterson has also incurred certain costs associated with the operation and maintenance of her water treatment system. The Division's PDs address operation and maintenance costs ["O&M costs"], and require the permittee to reimburse the owner of an affected water supply for such expenses. (*See PD Technical 2006-01, page 5; PD Regulatory 2013-01, page 6.*) In this case, Hydrologist Kyle Baldwin found as part of his investigatory report:

Reimbursement for long term maintenance of the water treatment system is not recommended as the water quality has returned to premining conditions.

(See Division Exhibit 4, page 10 of 82.)

However, Supervising Hydrologist Cheryl Socotch did not agree with Mr. Baldwin's conclusion that the water quality in the Pattersons' well had returned to pre-mining conditions. Moreover, the data presented by the Division, and introduced at the Commission's hearing, does **not** support Mr. Baldwin's conclusion that water quality had recovered.

Monitoring reports, reflecting the results of testing of the Pattersons' well were collected and reported by Anthony Mining for the period between August 2004 and February 2011. Additionally (as part of the Baldwin investigation), the Division collected four water samples between January 2010 and September 2011. The results of all of these water samples generally show that the Pattersons' water continues to display high levels of iron, manganese, total hardness and sulfates, as compared with pre-mining water samples.¹⁶ Based upon the evidence presented, the Commission finds that Supervising Hydrologist Cheryl Socotch correctly concluded that the Pattersons' water supply has **not** returned to pre-mining conditions, and that the Pattersons' water supply requires continued treatment.

¹⁶ *See attached Commission Figures 2 - 7.*

Continued treatment of the Pattersons' water supply will result in certain O&M costs. PD Regulatory 2013-01 sets forth a process for determining a permittee's responsibility for reimbursing such costs:

After installation of the replacement water supply, O&M ["operation and maintenance"] data should be collected by the permittee for a period of time not less than six months or more than twelve months to determine increased O&M costs. During this period of time, the permittee should consult with the water supply owner about any increased O&M costs of the replacement water supply over the premining water supply.

(See PD Regulatory 2013-01, page 7.)

Federal law, as well as the Division's own directives, requires that O&M costs be considered when replacing an affected water supply. Yet in this case, no evidence was presented that either Anthony Mining, or the Division, undertook any effort to determine the O&M costs being incurred by the Pattersons in association with the water treatment system necessary to the effective replacement of their water supply.¹⁷

¹⁷ At hearing, when questioned by the Commission about why O&M costs were not assessed in this case, Division Hydrologist Socotch testified that, even though the then-effective PD Technical 2006-01 anticipated that owners of affected water supplies would be reimbursed for O&M costs, the Division was unsure of its regulatory authority to **require** a permittee to reimburse for such costs. Ms. Socotch testified that the Division was in the process of revising the then-effective PD (Technical 2006-01) and would address O&M costs in a new PD. PD Regulatory 2013-01 was issued on December 1, 2013. PD Regulatory 2013-01 more clearly acknowledges the permittee's responsibility to reimburse for O&M costs, and sets forth a process for determining these costs. Significantly, between the issuances of these two PDs, there was no notable change in the relevant portions of Ohio law addressing water replacement. Nor has the Division's authority to assess O&M costs been expanded. Therefore, nothing has statutorily changed. The current and past PDs are both based upon the exact same statutory language. It is clear that the Division has, and had, authority to require reimbursement of O&M costs at all times relevant to this appeal.

Significantly, SMCRA's provision 30 U.S.C. 1307 (B) - which is the basis for O.R.C. §1513.162 (A) - was enacted in 1977, and has not been amended since that time.

Furthermore, federal law found at 30 CFR 717.17 and CFR 701.5 have not been amended since 1979. 30 CFR 717.17(i) requires replacement of water supplies affected by coal mining. 30 CFR 701.5 defines "replacement of water supply" to include the :

... payment of operation and maintenance costs in excess of customary and reasonable delivery costs for premining water supplies.

To interpret Ohio's statutory law as not requiring the assessment of O&M costs (when Ohio's law is **required** to be as effective as the federal law) is contrary to 30 CFR 701.5 and would violate the requirements of SMCRA.

The Division's PDs require consideration of O&M costs when replacing an affected water supply. Assessment of such costs are also addressed under the federal SMCRA law and are components of other state mining law, enacted to be consistent with SMCRA.¹⁸

G. REMAND FOR DETERMINATION OF WHETHER THE INSTALLED TREATMENT SYSTEM IS A VALID REPLACEMENT (DOWNSTREAM SAMPLING AND ANALYSES):

The Commission **FINDS** that the issue of whether the Patterson' water supply has been successfully replaced has not been determined on the basis of appropriate water sampling and analyses, conducted downstream of the installed treatment system, in order to determine if the installed system has successfully treated the water to pre-mining conditions. Therefore, this matter is **REMANDED** to the Chief to take any required actions consistent with this decision.

H. REMAND FOR DETERMINATION OF OPERATION AND MAINTENANCE COSTS, AND THE PERIOD OF REIMBURSEMENT:

The Commission **FINDS** that there has been no determination made as to the operation and maintenance costs to which Ms. Patterson may be entitled, based upon an appropriate treatment system and based upon a determination as to the necessary duration of the required treatment. Therefore, this matter is **REMANDED** to the Chief to take any required actions consistent with this decision.

¹⁸ Notably, Pennsylvania has recognized that O&M costs that increase the costs associated with a replacement water supply must be funded by the coal mine operator. The Pennsylvania requirement exists in order to comply with basically the same statutory water replacement requirement that exists in Ohio. (*See Carlson Mining v. Commonwealth of Pennsylvania Department of Environmental Resources*, [October 29, 1992], page 140; copy attached as Exhibit A.)

I. TIMELINESS OF RESOLUTION:

The Commission is sympathetic to the inconveniences endured by Ms. Patterson with regards to her water supply. What is of particular concern to the Commission is the **time** that it took for her concerns to be properly addressed.

Ms. Patterson's well water showed signs of contamination by mining in the Fall of 2006. It was not until June of 2013, that Ms. Patterson was reimbursed for a portion of the funds expended in 2009 for a treatment system. It is now 2014, eight years having passed, and final resolution has not yet been achieved. During this eight-year period: (1) Anthony failed to effectively respond to Ms. Patterson's quality issues for nearly two and one half years, (2) Anthony failed to respond to her requests for reimbursement for the installed treatment system for seven months, (3) the Division took two years to conduct its groundwater investigation, and (4) after being ordered to reimburse Ms. Patterson for the water softening unit (following informal conference), it took Anthony Mining almost a full year (and three separate Chiefs directives) to actually reimburse Ms. Patterson.

It must be noted that PD Technical 2006-1 provides:

When a permittee learns of the water problem or receives an order by the chief requiring permanent replacement of a water supply, the permittee will **immediately** make arrangement for and bear all costs associated with installation of an appropriate replacement water supply and/or treatment system

(Emphasis added; PD Technical 2006-01, page 4.)

The Commission is disappointed that Ms. Patterson's water supply complaint was not handled in the expeditious manner anticipated by the Division's own directives and procedures. Moreover, had Anthony Mining timely addressed Ms. Patterson's water quality complaint, as the law and Anthony's permit requires, the controversy regarding which treatment system is appropriate for her water supply, could have been avoided.

In light of these timeliness concerns, the Commission urges the Chief to expedite his actions under remand.

CONCLUSIONS OF LAW

1. The ultimate burden of persuasion in this matter is placed upon the Appellant Tina Patterson to prove by a preponderance of the evidence that the Division Chief acted arbitrarily, capriciously or in a manner inconsistent with law in issuing Chief's Order 7354, which required Anthony Mining Company to reimburse Tina Patterson in the amount of \$3,700, for the purchase and installation of a water softening unit, but did not require reimbursement or payment for a reverse osmosis appliance or payment for operating and maintenance costs associated with treatment. (*See O.R.C. §1513.13(B).*)

2. O.R.C. §1513.162 requires:

The operator of a coal mining operation shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source where the supply has been affected by contamination, diminution, or interruption proximately resulting from the coal mining operation and shall reimburse the owner for the reasonable cost of obtaining a water supply from the time of the contamination, diminution, or interruption by the operation until the water supply is replaced.

(*See also: O.A.C §1501:13-9-04(P).*)

3. In reviewing Ms. Patterson's potential entitlement to operating and maintenance costs, the Division's conclusion that the installed water softening unit overcomes the degradation in quality of the Pattersons' water was arbitrary and capricious, because this fact has not been established by the evidence. The Division must still determine if the water treatment system, as presently constituted (giving consideration to the contributing treatment, if any, of the reverse osmosis appliance) produces a compliant replacement water supply.

4. It was arbitrary and capricious for the Division to fail to determine if the existing water treatment system (the water softening unit and/or the reverse osmosis appliance) adequately treats the Pattersons' well water. The Pattersons' water supply must be re-evaluated to determine if the water treatment system adequately produces a compliant replacement water supply. If the existing treatment system is not adequate to return the Pattersons' water supply to pre-mining conditions, then the Chief must take appropriate actions to cause Anthony Mining either (1) to revise the installed treatment system in a manner that effectively returns the Pattersons' water supply to pre-mining conditions, or (2) to otherwise replace the Pattersons' water supply.

5. It was arbitrary and capricious for the Division to fail to grant operating and maintenance costs associated with a compliant water replacement system. If a treatment system adequately produces a compliant replacement water supply, then operating and maintenance costs associated with such system must be determined. Because Ms. Patterson is entitled to operating and maintenance costs associated with an effective water treatment system that produces water of pre-mining quality, the Chief must direct Anthony Mining to pay any such costs.

6. It was arbitrary and capricious for the Division to deny reimbursement for the reverse osmosis appliance installed on the Pattersons' water supply, when no determination had been made whether the reverse osmosis appliance is, or is not, necessary to treat the Pattersons' well water in order to produce a compliant replacement water supply, in particular regarding effective treatment for elevated sulfates.

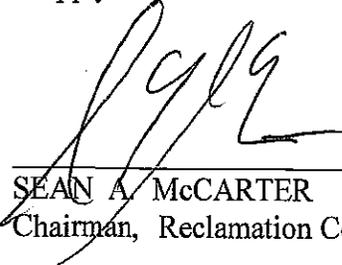
ORDER

Based upon the foregoing findings of fact and conclusions of law, the Commission hereby **VACATES** Chief's Order 7354. The Commission **REMANDS** this matter to the Chief to take actions consistent with the findings and conclusions of this decision, which actions shall include, but not be limited to:

1. Testing the raw water from the Pattersons' well, to determine if iron, manganese, total hardness and sulfate levels remain elevated from pre-mining levels.
2. Testing the Pattersons' water as treated by the reverse osmosis appliance. If the reverse osmosis appliance is necessary for the water treatment system to return the water to pre-mining conditions, then ordering Anthony to reimburse Ms. Patterson for the costs associated with the purchase and installation of the reverse osmosis appliance.
3. Testing the Pattersons' treated water supply to determine if the existing water treatment system, in whatever configuration, produces a compliant replacement water supply. If the water treatment system produces a compliant replacement water supply, then Ms. Patterson shall be awarded the reasonable and customary operating and maintenance costs associated with treatment.

If, following testing, it is determined that the existing water treatment system, in any configuration, will not produce a compliant replacement water supply, the Chief shall order Anthony either (1) to revise the existing installed treatment system in a manner that will effectively return the Pattersons' water supply to pre-mining conditions, or (2) to otherwise provide the Pattersons' with a compliant replacement water supply.

3/10/14
DATE ISSUED


SEAN A. McCARTER
Chairman, Reclamation Commission

INSTRUCTIONS FOR APPEAL

This decision may be appealed to the Court of Appeals, within thirty days of its issuance, in accordance with Ohio Revised Code §1513.14 and Ohio Administrative Code §1513-3-22. If requested, copies of these sections of the law will be provided to you from the Reclamation Commission at no cost.

DISTRIBUTION:

Tina Patterson, Via Regular Mail & Certified Mail #: 91 7199 9991 7030 3939 0608
Brian Ball, Kristina Tonn, Via Inter-Office Certified Mail#: 6721
Michael C. Bednar, Via Certified Mail #: 91 7199 9991 3939 0615

COMMISSION

FIGURES

1 - 7



Data used in these figures are taken from Division Exhibit 4, pages 14-48 of 82, and from the Division's Supplement to the Record, pages 6-17. The data includes the values of samples collected:

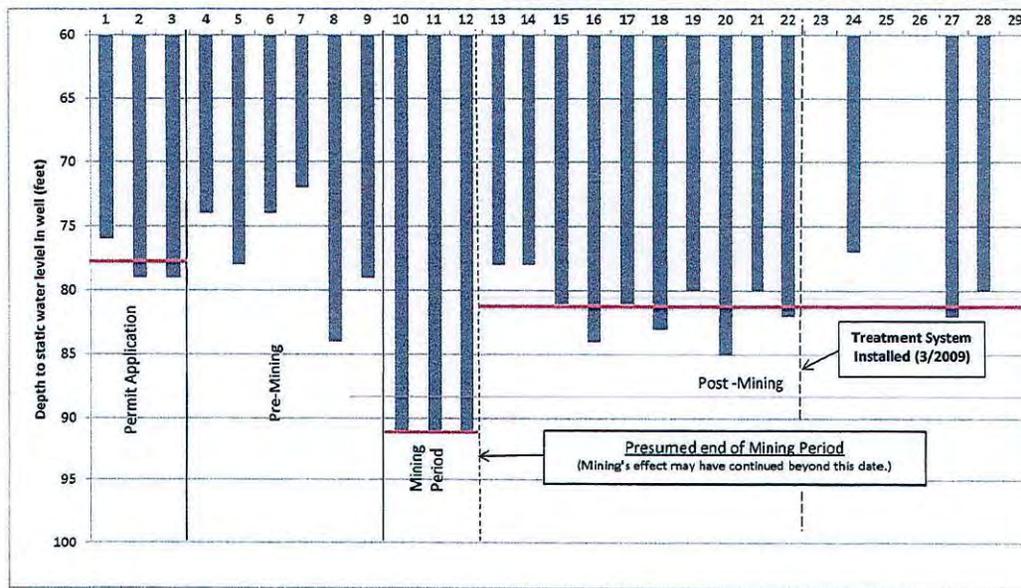
- (1) By Anthony Mining, as part of its permitting and monitoring program, and**
- (2) By the Division, as part of the Baldwin investigation.**

The figures distinguish between samples collected by Anthony Mining and samples collected by the Division.

	Date	Index	Static H ₂ O Level (ft)	Mean
Permit Application	04/10/00	1	76	78
	11/01/00	2	79	
	08/28/01	3	79	
Pre-Mining	08/10/04	4	74	78
	11/09/04	5	78	
	03/02/05	6	74	
	05/05/05	7	72	
	11/21/05	8	84	
	02/20/06	9	79	
Mining Period	06/14/06	10	91	91
	08/30/06	11	91	
	10/24/06	12	91	
Post-Mining Period	02/20/07	13	78	81
	06/13/07	14	78	
	08/13/07	15	81	
	11/26/07	16	84	
	02/13/08	17	81	
	05/08/08	18	83	
	08/08/08	19	80	
	11/20/08	20	85	
	03/03/09	21	80	
	09/30/09	22	82	
	01/22/10	23	NM	
	03/26/10	24	77	
	08/10/10	25	NM	
	10/22/10	26	NM	
	11/11/10	27	82	
	02/17/11	28	80	
	09/15/11	29	NM	

Red Indicates DMRM Samples
 NM= Not measured

**Figure 1 - Water Analyses of Patterson Well (WL-6)
 Static Water Level (SWL) (ft)**

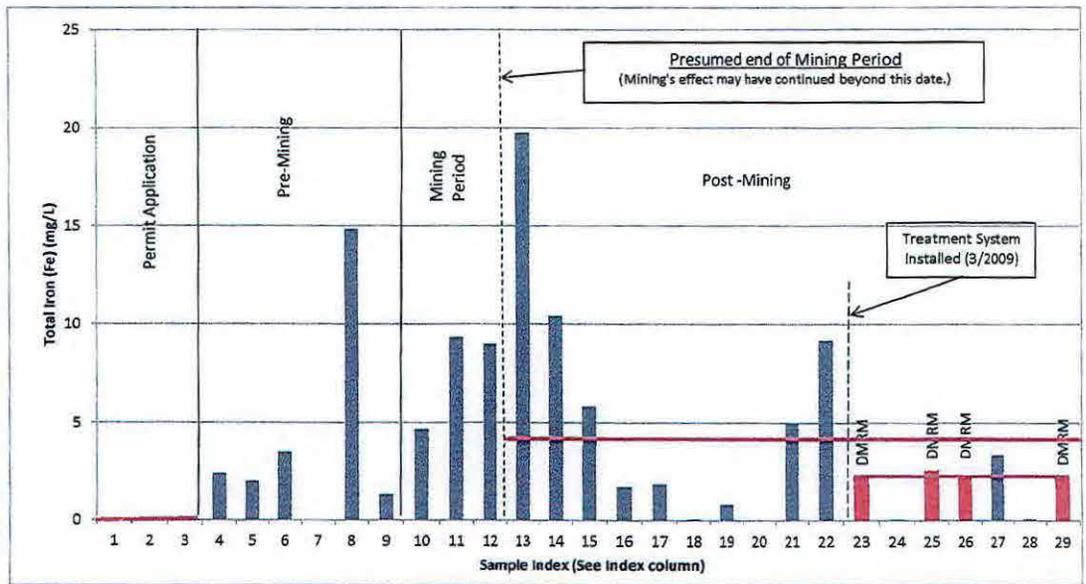


Note: DMRM did not collect the water level in the well.

	Date	Index	Total Iron (mg/L)	Mean
Permit Application	04/10/00	1	0.11	0.06
	11/01/00	2	0.05	
	08/28/01	3	0.03	
Pre-Mining	08/10/04	4	2.42	4.00
	11/09/04	5	2.04	
	03/02/05	6	3.53	
	05/05/05	7	0.02	
	11/21/05	8	14.83	
	02/20/06	9	1.32	
Mining Period	06/14/06	10	4.69	2.42
	08/30/06	11	9.33	
	10/24/06	12	8.99	
Post-Mining Period	02/20/07	13	19.75	2.42
	06/13/07	14	10.42	
	08/13/07	15	5.85	
	11/26/07	16	1.76	
	02/13/08	17	1.90	
	05/08/08	18	0.07	
	08/08/08	19	0.79	
	11/20/08	20	0.02	
	03/03/09	21	4.99	
	09/30/09	22	9.17	
	01/22/10	23	2.36	
	03/26/10	24	0.06	
	08/10/10	25	2.61	
	10/22/10	26	2.31	
	11/11/10	27	3.41	
02/17/11	28	0.07		
09/15/11	29	2.40		

Red indicates DMRM Samples

Figure 2 - Water Analyses of Patterson Well (WL-6)
Total Iron (Fe) (mg/L)

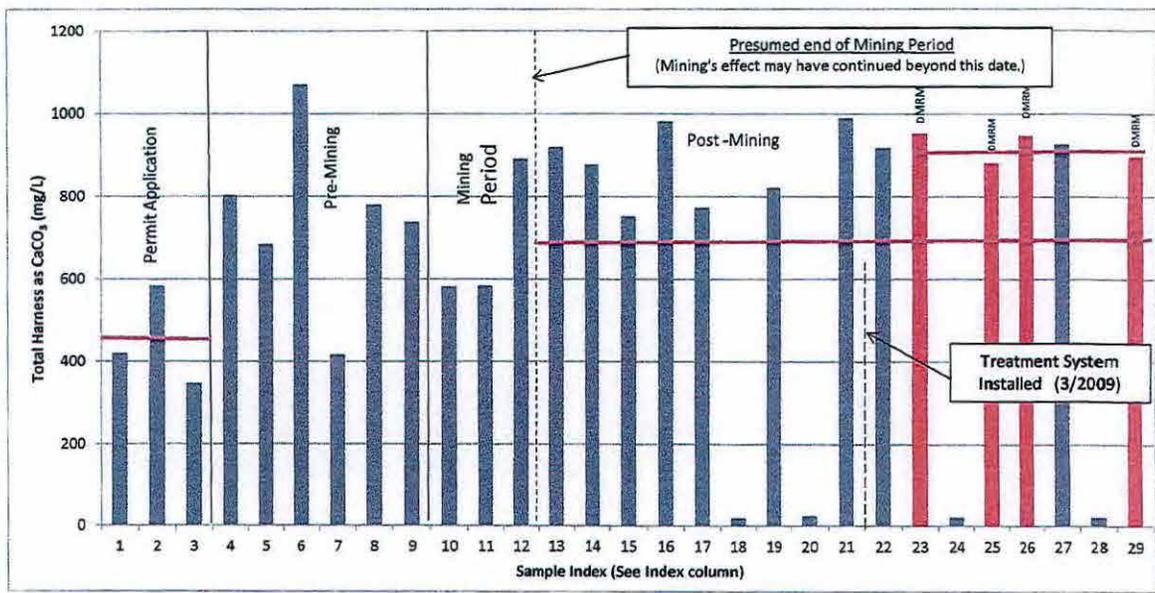


Note: These values are for the raw water from the well, which is upstream of the water treatment system(s).

	Date	Index	Total Hardness	Mean
Permit Application	04/10/00	1	420	451
	11/01/00	2	584	
	08/28/01	3	348	
Pre-Mining	08/10/04	4	804	
	11/09/04	5	685	
	03/02/05	6	1070	
	05/05/05	7	417	
	11/21/05	8	781	
	02/20/06	9	739	
Mining Period	06/14/06	10	582	
	08/30/06	11	584	
	10/24/06	12	892	
Post-Mining Period	02/20/07	13	920	690
	06/13/07	14	878	
	08/13/07	15	754	
	11/26/07	16	982	
	02/13/08	17	774	
	05/08/08	18	20	
	08/08/08	19	822	
	11/20/08	20	25	
	03/03/09	21	990	
	09/30/09	22	918	
	01/22/10	23	953	
	03/26/10	24	21	
	08/10/10	25	882	
10/22/10	26	947		
11/11/10	27	927		
02/17/11	28	23		
09/15/11	29	897		

Red Indicates DMRM Samples

**Figure 3 - Water Analyses of Patterson Well (WL-6)
Total Hardness as CaCO₃**

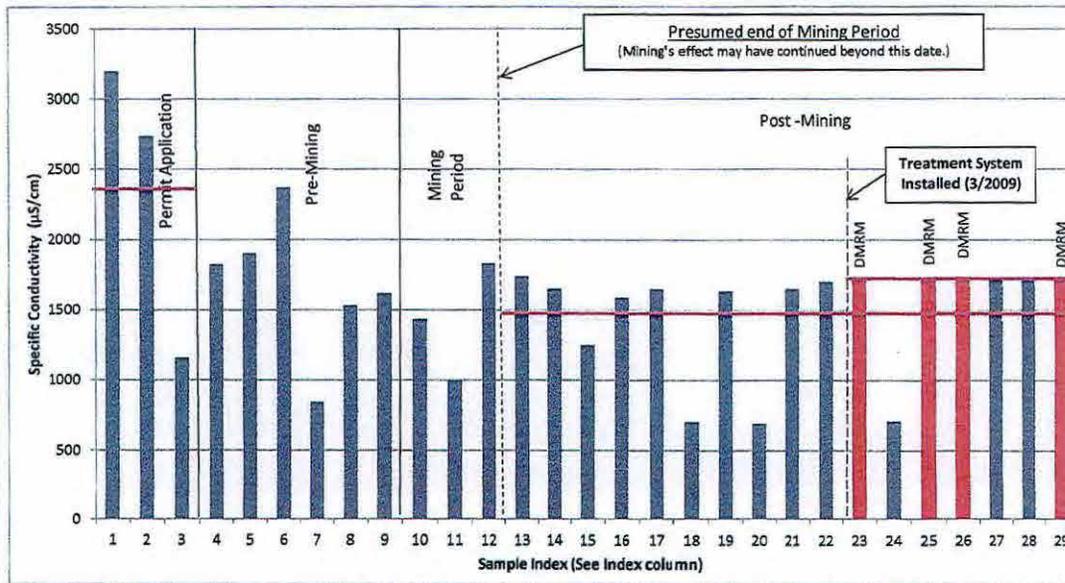


Note: These values are for the raw water from the well, which is upstream of the water treatment system(s).

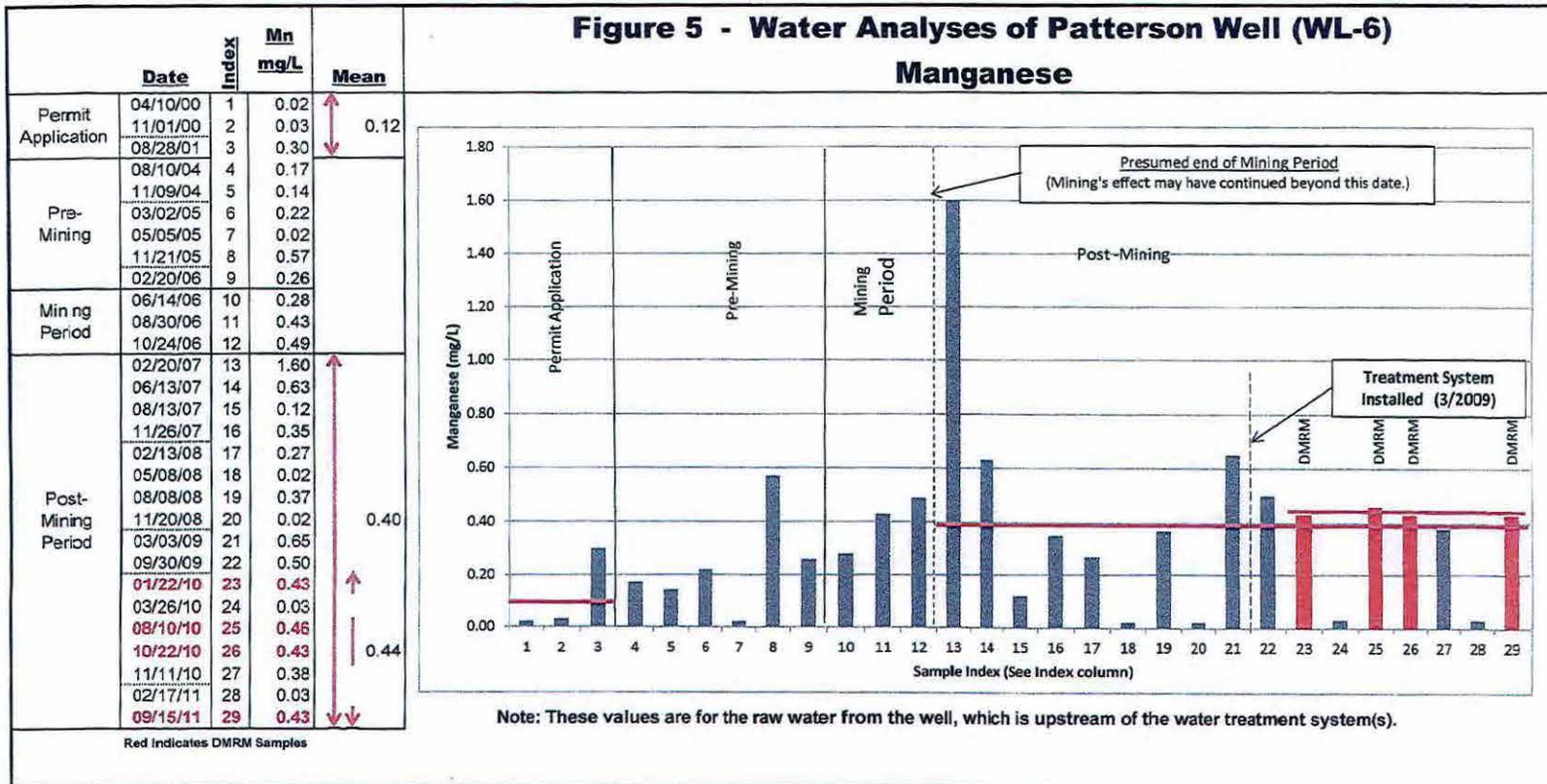
	Date	Index	Spec. Cond. (µS/cm)	Mean
Permit Application	04/10/00	1	3200	2367
	11/01/00	2	2740	
	08/28/01	3	1160	
Pre-Mining	08/10/04	4	1825	1493
	11/09/04	5	1904	
	03/02/05	6	2370	
	05/05/05	7	845	
	11/21/05	8	1534	
	02/20/06	9	1623	
Mining Period	06/14/06	10	1439	1735
	08/30/06	11	997	
	10/24/06	12	1831	
Post-Mining Period	02/20/07	13	1740	1735
	06/13/07	14	1654	
	08/13/07	15	1254	
	11/26/07	16	1593	
	02/13/08	17	1651	
	05/08/08	18	707	
	08/08/08	19	1640	
	11/20/08	20	692	
	03/03/09	21	1654	
	09/30/09	22	1706	
	01/22/10	23	1730	
	03/26/10	24	709	
	08/10/10	25	1740	
	10/22/10	26	1740	
	11/11/10	27	1724	
	02/17/11	28	1714	
	09/15/11	29	1730	

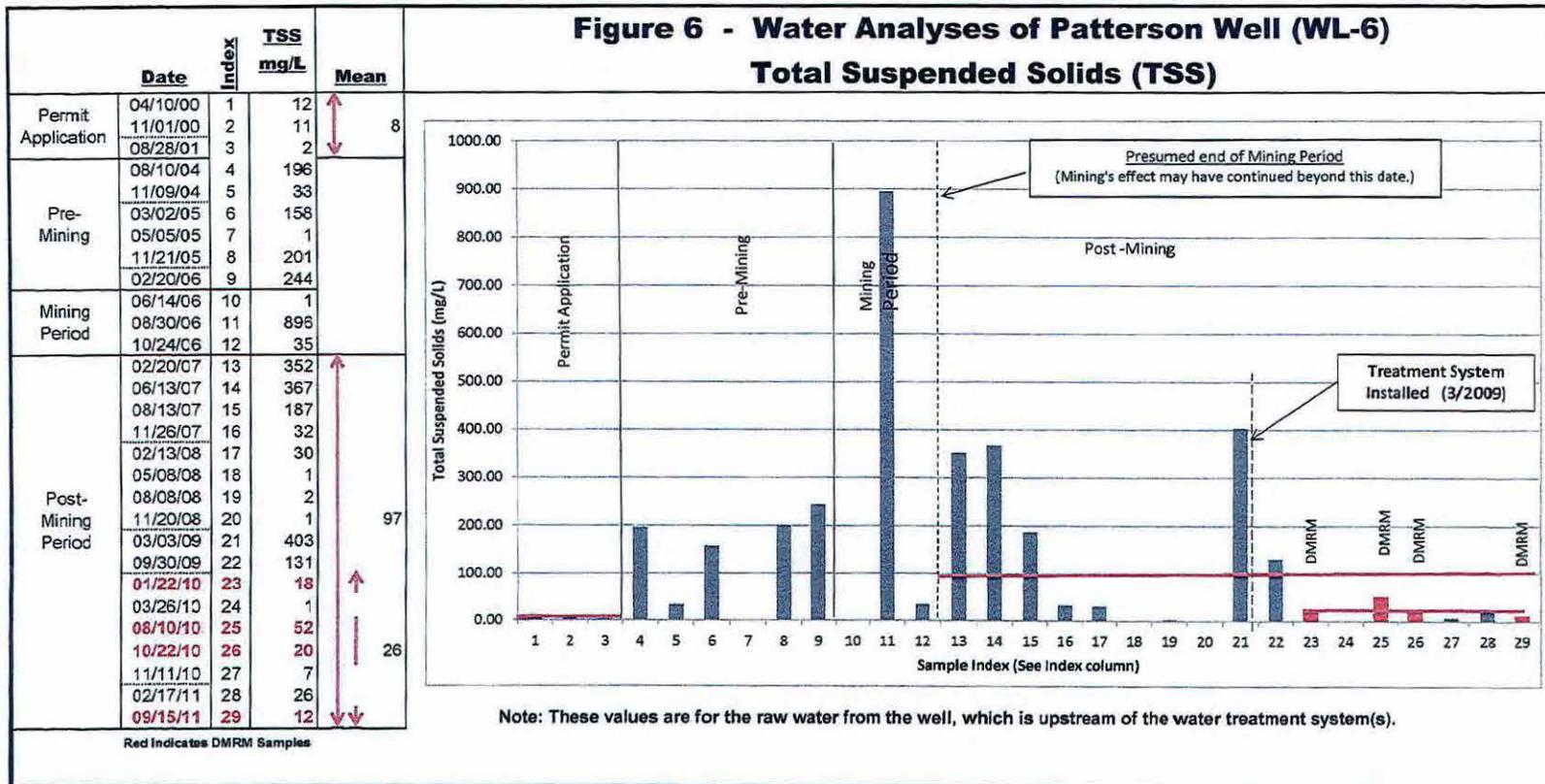
Red Indicates DMRM Samples

Figure 4 - Water Analyses of Patterson Well (WL-6)
Specific Conductivity (µS/cm) [x 0.67 ≈ Total Dissolved Solids (TDS)]



Note: These values are for the raw water from the well, which is upstream of the water treatment system(s).

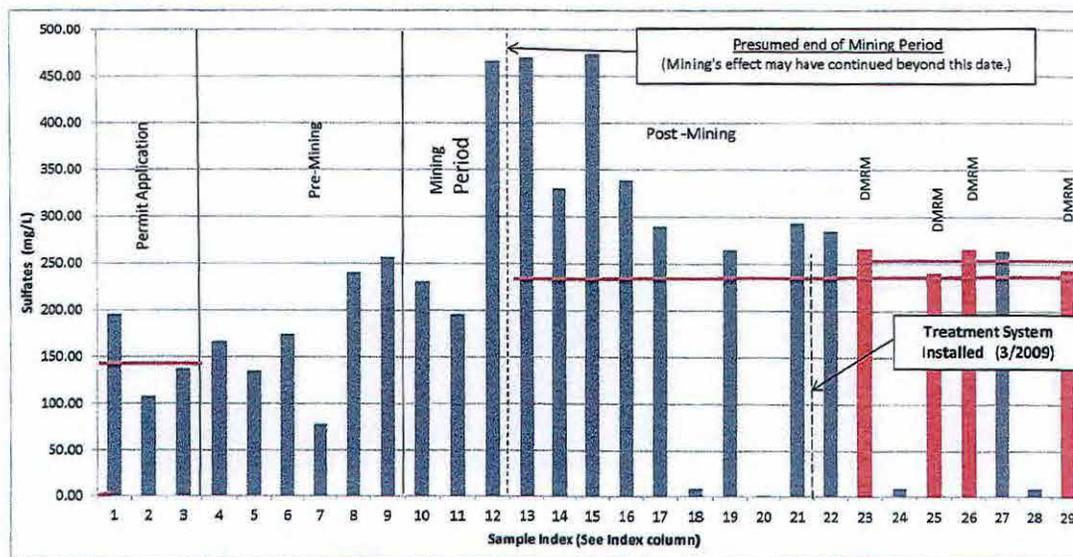




	Date	Index	Sulfates mg/L	Mean
Permit Application	04/10/00	1	196	147
	11/01/00	2	108	
	08/28/01	3	137	
Pre-Mining	08/10/04	4	167	
	11/09/04	5	135	
	03/02/05	6	175	
	05/05/05	7	78	
	11/21/05	8	241	
Mining Period	02/20/06	9	257	
	06/14/06	10	231	
	08/30/06	11	196	
	10/24/06	12	466	
Post-Mining Period	02/20/07	13	470	239
	06/13/07	14	330	
	08/13/07	15	474	
	11/26/07	16	339	
	02/13/08	17	290	
	05/08/08	18	9	
	08/08/08	19	265	
	11/20/08	20	1	
	03/03/09	21	294	
	09/30/09	22	285	
	01/22/10	23	266	
	03/26/10	24	9	
	08/10/10	25	241	
	10/22/10	26	266	
	11/11/10	27	264	
	02/17/11	28	9	
09/15/11	29	244		
				254

Red Indicates DMRM Samples

Figure 7 - Water Analyses of Patterson Well (WL-6)
Sulfates



Note: These values are for the raw water from the well, which is upstream of the water treatment system(s).

EXHIBIT A



ADJUDICATION ORDER

Carlson Mining v. Commonwealth of Pennsylvania
Department of Environmental Resources

Pennsylvania Environmental Hearing Board
October 29, 1992



COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL HEARING BOARD
 101 SOUTH SECOND STREET
 SUITES THREE-FIVE
 HARRISBURG, PA 17101-0105
 717-787-3483
 TELECOPIER 717-783-4738

M. DIANE SMITH
 SECRETARY TO THE BOARD

CARLSON MINING

v.

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL RESOURCES

:
:
:
:
:

EHB Docket No. 91-547-E

Issued: October 29, 1992

ADJUDICATION

By Richard S. Ehmann, Member

Synopsis

The appeal by a coal mine operator of an order issued by the Department of Environmental Resources (DER) requiring it to provide for operation and maintenance of a replacement water supply for a homeowner on a permanent basis is dismissed in part and sustained in part. Under §4.2(f) of the Surface Mining Conservation and Reclamation Act (SMCRA), Act of May 31, 1945, P.L. 1198, as amended, 52 P.S. §1396.4b(f), DER is authorized to require an operator to permanently provide for increased costs of operating and maintaining an affected homeowner's replacement water supply where these costs are "excessive", i.e., more than marginally higher, when compared with the previous supply system. See Gioia Coal Company v. DER, 1986 EHB 82; Buffy and Landis v. DER, et al., 1990 EHB 1665. As the five-fold increase in operating and maintenance costs to the affected homeowner in this appeal is

excessive, DER properly found the replacement supply did not comply with §4.2(f) and required the operator to provide for the homeowner's increased costs on a permanent basis. Because there is no evidence in the record showing DER gave consideration to the means of providing a fund for the replacement supply which would ensure that the money is used for the replacement supply or to the return of any unused funds to Carlson or showing DER ensured that the amount of funds it seeks will be sufficient to cover reasonable projections for inflation or unexpected operating and maintenance costs in the future, DER abused its discretion in this regard, and the matter is remanded to DER to address the funding mechanism while the Board retains jurisdiction.

Introduction

This appeal was commenced on December 16, 1991 by Carlson Mining (Carlson), challenging an order issued to it by DER pursuant to the Clean Streams Law (Clean Streams Law), Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. §691.1 *et seq.*, and SMCRA that required Carlson to submit a plan for acceptable replacement of the water supply to the Mackey residence, which is located near Carlson's Surface Mine Permit (SMP) 37830105 in Slippery Rock Township, Lawrence County. The order further directed that Carlson's plan must provide for the permanent maintenance and operation of the water supply and assure adequate water quantity and quality for the purpose served by the supply.

After engaging in discovery, the parties filed a Joint Motion to Limit Issues and Submit on Briefs and a Joint Stipulation of Facts on March 9,

1992. We granted the Joint Motion and the parties then submitted their respective briefs. It is upon the facts contained in the Joint Stipulation and the parties' briefs that we make the following findings of fact.¹

FINDINGS OF FACT

1. Appellant is Carlson, a partnership with an address of R.D. 6, Box 483, New Castle, PA 16101. (JS ¶ 2)²
2. Appellee is DER, the agency of the Commonwealth with the authority to administer and enforce the Clean Streams Law; SMCRA; Section 1917-A of the Administrative Code, Act of April 9, 1929, P.L. 177, as amended, 71 P.S. §510-17; and the rules and regulations adopted thereunder. (JS ¶ 1)
3. Carlson was authorized to conduct surface mining in Pennsylvania pursuant to Surface Mining Operator's License No. 100487 at all times relevant to this appeal. (JS ¶ 4)
4. DER issued SMP 37830105 to Carlson on January 21, 1986 for a surface mine located in Slippery Rock Township, Lawrence County, known as the VanGorder Mine. (JS ¶¶ 5, 8)

¹ We note that exhibit 1 appended to Carlson's brief, which allegedly is a section of DER's Program Guidance Manual dealing with water supply replacement and permitting, is neither a stipulated exhibit nor is it supported by any affidavits or other factual documents. We lack even an assurance that it reflects DER's current policy. As such, we do not consider it to be part of the record before us, which the parties created by stipulation. We further note that exhibit 2 appended to Carlson's brief, which is also neither a stipulated exhibit nor supported by any affidavit, is not part of the record in this appeal.

² "JS" indicates a citation to the Joint Stipulation of Facts.

5. Carlson conducted surface mining on acreage situated within SMP 37830105. (JS ¶ 10)

6. On December 31, 1987, DER issued Authorization to Mine Permit No. 100487-37830105-04 to Carlson, which was conditioned to prohibit Carlson's mining until the company had provided a permanent replacement for the water supply to the Mackey residence (Mackey replacement supply) approved by DER. (JS ¶ 9)

7. DER issued Compliance Order (CO) 88-K-015S to Carlson on January 29, 1988, citing the company for affecting the area covered by Authorization to Mine Permit No. 100487-37830105-04 prior to providing a DER-approved permanent replacement for the Mackey water supply (which was a spring). (JS ¶ 11, Exhibit 1 to JS)

8. Carlson did not appeal CO-88-K-015S. (JS ¶ 11)

9. DER issued a civil penalty assessment on May 5, 1988 against Carlson for violating its mining authorization permit, based on the company's mining in the area near the Mackey spring before receiving DER's approval to affect that spring (the violation cited in CO 88-K-015S). (JS ¶ 12)

10. Carlson did not appeal the civil penalty assessment. (JS ¶ 12)

11. On April 6, 1990, DER notified Carlson that the Mackey replacement supply provided by the company, a 52-foot-deep well known as Well No. 2, was not a suitable replacement for the Mackey water supply because of excessive concentrations of iron, manganese, and sulfate. (JS ¶ 13) Carlson received this notice on April 27, 1990. (JS ¶ 13)

12. Carlson agreed on May 2, 1990 to provide treatment for Well No. 2 so as to provide adequate water quality, but only for as long as Mrs. Mackey lives at the residence. (JS ¶ 14)

13. Based upon analyses of water samples taken from the spring and Well No. 2 (after treatment) which showed sulfate concentrations to be in excess of 250 milligrams per liter (mg/l), DER issued CO 91-K-099S to Carlson on April 5, 1991, citing the company for its failure to restore or replace the Mackey water supply. (JS ¶ 15)

14. DER vacated CO 91-K-099S on May 13, 1991 and notified Carlson that its replacement for the Mackey water supply was not adequate. DER required Carlson to demonstrate an adequate supply, including the costs of perpetual maintenance of the replacement supply, on or before July 1, 1991. (JS ¶ 16)

15. On July 18, 1991, DER sent Carlson a notice stating that the Mackey water supply had not been adequately replaced based upon an excessive manganese concentration and Carlson's failure to provide for the permanent maintenance and operation of the replacement supply. (JS ¶ 17)

16. DER issued Carlson the Administrative Order No. 91-K-154S, which is challenged in the present appeal, on November 18, 1991. (JS ¶ 18) This order cited Carlson for violating §§4.2(f) and 18.6 of SMCRA (52 P.S. §§1396.4b(f) and 1396.24), §§87.119 and 86.13 of 25 Pa. Code, and §611 of the Clean Streams Law (35 P.S. §691.611), for its failure to provide for permanent maintenance and operation of the Mackey replacement supply. (JS ¶ 18)

17. Carlson installed a Culligan Water Conditioning Exchange System to treat water pumped from the replacement well to the Mackey residence. (JS ¶ 20) DER has accepted this combination of the well and water conditioning system as an adequate means of replacing the Mackey water supply. (JS ¶ 20)

18. The annual cost of treatment, maintenance, and amortization of equipment for the Mackey replacement supply is \$247.25. (JS ¶ 21)

19. The annual cost of Mackey's original water supply was \$47.01. (JS ¶ 22)

20. The additional annual costs for the Mackey replacement supply are \$200.24. (JS ¶ 23)

21. These additional costs to Mackey for operating and maintaining the replacement supply are more than marginally higher and are excessive under the standard set forth in Gioia Coal Company v. DER, 1986 EHB 82.

DISCUSSION

In this appeal challenging DER's order requiring Carlson to provide an acceptable replacement for the water supply to the Mackey residence, it is DER which bears the burden of proof. Gioia, supra. The parties have stipulated that there are three issues on appeal. They are:

- a) Is Carlson required to provide for the maintenance and operation of the Mackey replacement supply on a permanent basis under Section 4.2(f) of SMCRA, 52 P.S. §1396.4b(f), and 25 Pa. Code §87.119?
- b) Are the increased operation and maintenance costs of the Mackey replacement water supply sufficient to require Carlson to compensate Mackey for those costs *ad infinitum*?
- c) If the Board finds that Carlson is required to compensate Mackey for the increased operation and maintenance costs of the Mackey replacement supply, may DER

require Carlson to create individual trusts or escrow accounts to provide for the payment of the additional costs?

Permanent Operation and Maintenance of Mackey Replacement Supply

Both parties agree that §4.2(f) of SMCRA (52 P.S. §1396.4b(f)) and 25 Pa. Code §87.119 control Carlson's duty to provide a replacement water supply for the Carlson residence. Section 4.2(f) of SMCRA provides:

(f) Any surface mining operator who affects a public or private water supply by contamination or diminution shall restore or replace the affected supply with an alternate source of water adequate in quantity and quality for the purposes served by the supply. If any operator shall fail to comply with this provision, the secretary may issue such orders to the operator as are necessary to assure compliance.

Likewise, §87.119 of 25 Pa. Code provides:

The operator of any mine which affects a water supply by contamination, pollution, diminution or interruption shall restore or replace the affected water supply with an alternate source, adequate in water quantity and water quality, for the purpose served by the supply. For the purpose of this section, the term "water supply" shall include any existing or currently designated or currently planned source of water or facility or system for the supply of water for human consumption or for agricultural, commercial, industrial or other uses.

We have previously interpreted the requirements of §4.2(f) of SMCRA and 25 Pa. Code §87.119, first in Gioia, supra, and later in Buffy and Landis v. DER, et al., 1990 EHB 1665.

Gioia involved a surface mine operator's challenge to a DER order issued post-mining pursuant to §4.2 of SMCRA directing the operator to restore or replace a homeowner's (Novotnak) water supply. The Novotnaks' original

supply was a spring which was shared with their neighbor, McGregor. The operator replaced the spring with a well to service both the homes of Novotnak and McGregor. This well's pump was energized from the main electrical power line to the McGregor home and the fuse box for this line was located inside the McGregor home. Further, McGregor paid the electric bills without requesting Novotnaks to contribute their share of the operating costs for the well's pump. When Novotnaks complained to DER about the adequacy of the replacement supply, DER issued the challenged order.

In our decision in Gioia, we indicated that a replacement supply which requires more maintenance than the original supply could be consistent with §4.2(f) of SMCRA, but a replacement supply which, when compared to the original supply, is unreliable or needs excessive maintenance would not satisfy the requirements of that section. Under the facts presented in Gioia, we concluded that as to the Novotnaks, the replacement supply met the requirements of §4.2(f) regarding reliability, maintenance, and operating costs. Because the Novotnaks had lost the degree of control they had over their original supply, however, we ruled that the replacement supply was not in compliance with the requirements of §4.2(f) as it was not adequate in quantity.

Buffy and Landis, which arose in a pre-mining permitting context, involved two homeowners' (Buffy and Landis) appeal challenging DER's determination that the surface mine operator had shown an adequate replacement supply for their wells prior to DER's authorizing mining within the recharge area of the wells. While distinguishing Gioia from the appeal in Buffy and

Landis because of the distinction between pre-mining permit review and post-mining enforcement, we indicated that the concepts of maintenance and control set forth in Gioia provided guidance for our assessment of the adequacy of the replacement supply.

We further stated that along the lines of Gioia, we did not believe the legislature intended that a replacement water supply which costs more to operate and maintain than the predecessor supply should be regarded as meeting the requirements of §4.2(f). In Buffy and Landis, no evidence of the operating and maintenance costs for the proposed replacement system was presented to the Board, nor was there any evidence of the operating and maintenance costs for the existing Buffy well or Landis well. The operator in Buffy and Landis had proposed to establish an interest-bearing escrow account in the initial principal amount of \$30,000 (based on the estimated cost of drilling and building a community well system) for the purpose of ensuring that a community well replacement supply would be operated and maintained in good repair. We sustained the appeal in Buffy and Landis, indicating that without data consisting of a breakdown of all operating and maintenance costs for the homeowner's then-current water supply, neither DER nor this Board could determine the amount which must be escrowed to produce and reproduce these additional costs *ad infinitum*.

In its brief, Carlson contends DER has exceeded its statutory and regulatory authority by its order in this matter. Carlson argues that under Gioia, a replacement supply meets the requirements of §4.2(f) of SMCRA unless its operation and maintenance expenses are excessive. It urges that here,

these expenses are not excessive, and that the increased costs amount to compensatory damages to Mackey which must be assessed on Carlson by a court of common pleas because DER and this Board cannot deal with such damages. Further, Carlson argues DER's demand for an escrow account or other vehicle to facilitate the transfer of funds to Mackey provides insufficient protection to Carlson because there is no assurance that the escrowed funds will be used for operation and maintenance of the well and no provision has been made by DER here for return of any unused funds to Carlson or to ensure that Carlson will not be requested to increase the amount of the funds for the Mackey replacement supply in the future if operating and maintenance costs increase.

DER's brief, on the other hand, contends that in Buffy and Landis we overruled Gioia. It urges us to rule that based on *stare decisis*, Buffy and Landis requires us to find Carlson must provide for any increased operation and maintenance costs to Mackey on a permanent basis. DER further claims that an individual trust, escrow account, or similar financial vehicle is an appropriate way to implement the requirements of Buffy and Landis.

In reply, Carlson argues Buffy and Landis does not control this appeal, but, if we believe it to be controlling, it urges us to reconsider what we said in that decision.

The instant appeal, like Gioia, arises from DER's post-mining enforcement action against a mine operator regarding a replacement water supply. Here, despite DER's prohibition against Carlson's mining in the recharge area of Mackey's spring, Carlson mined the area and apparently was caught by DER. Thus, it is too late to undo what Carlson's mining has done

by way of contamination of the spring's water, and the issue before us is replacement of the Mackey water supply.

Carlson argues that SMCRA and DER's regulations regulate surface mining in a plenary fashion, and it asserts that nowhere in SMCRA or the regulations is DER provided with the authority to require an operator: 1) to provide for maintenance and operation of a replacement supply on a permanent basis, 2) to provide for increased operating and maintenance costs *ad infinitum*, or 3) to provide for an escrow fund or trust fund for such additional costs.

We reject Carlson's contention that DER has exceeded its statutory and regulatory authority under SMCRA and the Clean Streams Law in issuing the presently challenged order. DER has been authorized by the legislature at §4.2(f) of SMCRA to issue orders to a mine operator necessary to assure the operator's compliance with that section in restoring or replacing an affected water supply with an alternate source of water adequate in quantity and quality for the purposes served by the supply.

We have previously ruled in Gioia and Buffy and Landis that the increase in costs and effort of operating and maintaining the replacement supply goes to the question of whether the replacement supply is adequate in quantity and quality. As we stated in Gioia, a replacement supply which requires more maintenance than the original supply can be consistent with the requirements of §4.2(f). For instance, a replacement supply might require the owner to periodically change the filter in the water treatment system whereas the original spring required only seasonal cleaning and did not require

filtration. But, as we concluded in Gioia, where the effort or costs involved in operating and maintaining the replacement supply are "excessive," the replacement supply cannot be considered to be adequate in quantity and quality according to the requirements of §4.2(f).³ Where the homeowner has to make time in his schedule for dealing with the treatment system for the replacement supply or to deal with a maintenance man for the system, this effort may be more than the effort involved, for instance, in changing the filter on the previous system. While it does not trouble us to say that a *de minimus* increase in the cost of operating and maintenance expenses or increased maintenance efforts, such as changing a filter, does not render a replacement supply inadequate, (i.e., the two sources are equal in all respects), we cannot find the replacement supply to be adequate in quantity and quality where such post-mining costs and efforts are more than a marginally higher.

Clearly, Section 4.2(f) of SMCRA envisions a replacement supply which is adequate in quantity and quality. Such adequacy cannot be determined by whether the homeowner can afford to pay the increased costs of operating and maintaining the replacement supply. For example, if, prior to mining, the

³ Under the facts presented in Gioia, this Board was not called upon to explicate what was meant by "excessive," since there was no evidence regarding any increased operating and maintenance expenses or effort to the appellant/homeowner. The Board in Gioia did, however, offer a situation where we might have found the costs to the Novotnaks for the replacement supply to be excessive, i.e., if "the electricity bills now were very much greater than previously." We further pointed to the lack of complaint about the electric bill or a request for contribution of the Novotnaks' share on the part of McGregor as indicating the cost of operating the replacement supply was not excessive. We did not overrule Gioia in Buffy and Landis, as DER asserts, but we did indicate at footnote 6 in Buffy and Landis that we believed Gioia had taken a "grudging" approach to determining adequacy.

homeowner used 350 gallons per day⁴ at a cost of only \$.02 per gallon and the replacement supply provided after destruction of this supply also produces 350 gallons per day but costs \$.25 per gallon to run, the replacement system could only be said to be adequate in quantity for a homeowner who is sufficiently wealthy to run it or who sacrifices in other ways in order to use such a replacement system. (350 gallons x \$.25 per gallon x 365 days = \$31,937.50 per year.) To suggest that an operator has complied with §4.2(f) by offering a replacement supply which the homeowner could not use because it is too financially burdensome would defeat the concept present in both SMCRA and the Clean Streams Law of holding a mine operator responsible for a condition created by mining.⁵ Our inquiry, thus, must be into whether the costs and effort associated with operating and maintaining the replacement system are more than marginally higher than the costs and effort associated with operating and maintaining the previous supply.

Consistent with this concept found in both SMCRA and the Clean Streams Law of holding a mine operator responsible for a condition created by mining, it is the mine operator, and not the homeowner, who must bear the costs of operating and maintaining the replacement supply, forced on the

⁴ 350 gallons per day is one "EDU", which is a standard flow unit for the average amount of sewage discharged from a single family residence in one day. See Lower Paxton Township Authority, et al. v. DER, 1982 EHB 111.

⁵ See Commonwealth v. Harmar Coal Company, 452 Pa. 77, 306 A.2d 321 (1973) (the public interest is not served if public, rather than the miner, has to bear expense of abating pollution caused as a direct result of profit-making, resource depleting mining business).

homeowner because of mining, until the original water supply is restored to pre-mining quantity and quality, if ever.⁶ As our Supreme Court observed in Commonwealth v. Barnes & Tucker Co., 472 Pa. 115, 371 A.2d 461 (1977) (Barnes & Tucker II), appeal dismissed, 434 U.S. 807, 98 S.Ct. 38, 54 L.Ed. 2d 65 (1977), past mining practices have left our streams polluted and our groundwater unfit for consumption. In Barnes & Tucker II, the Supreme Court upheld an order of the Commonwealth Court requiring that mining company to pump and treat polluted water from its mine which was discharging from the mine and polluting a nearby stream, regardless of the fact that the mining activity which gave rise to the polluting condition was past conduct. The Commonwealth Court's order to Barnes & Tucker Company required the mining company to pump the water from its mine "until such time" as the likelihood of a reoccurrence of a repetition of discharge of untreated acid mine drainage

⁶ In its brief, Carlson raises the argument that DER, in issuing the challenged order, has ignored the balancing of interests it says is required by 52 P.S. §1396.1. Section 1396.1 provides in relevant part: "It is also the policy of this act to assure that the coal supply essential to the Nation's and the Commonwealth's energy requirements, and to their economic and social well-being, is provided and to strike a balance between protection of the environment and agricultural productivity and the Nation's and the Commonwealth's need for coal as an essential source of energy." Thus, §1396.1 states the legislative purpose or policy behind SMCRA itself. It does not impose on DER the requirement that it conduct a balancing test every time it acts under this statute. The Board's decision in Buffy and Landis, which DER followed in issuing its order here, merely interpreted the obligations flowing from this legislative determination. Moreover, it strikes us as strange that the mining company, which violated its permit by conducting this mining activity near the Mackey spring and rendered that spring unsuitable for future domestic needs, when being held to account for its conduct, should assert that DER and this Board must conduct such a balancing of competing interests. Clearly, if a balancing was to occur, it was to occur pursuant to the requirements of DER's mining authorization prior to Carlson's mining of the spring's recharge area, not after Carlson had mined that area.

from its mine to the waters of the Commonwealth was past, while also requiring the mining company to maintain a treatment program for the mine water.

Where a mining operator has rendered a water supply unusable, as is the present situation, the Supreme Court's decision in Barnes & Tucker II reinforces the appropriateness of requiring the mining operator to provide for the treatment system for the polluted water supply until the original supply is restored to pre-mining quantity and quality. Should this restoration occur as part of a natural process and take a year, five years or 25 years to occur, then that is the duration for which the mine operator is responsible. Should the original supply never return to its pre-mining quality, for instance, because the recharge area was permanently altered by mining, then the mine operator must bear the operating and maintenance costs for the replacement supply *ad infinitum*.⁷

Additionally, we disagree with Carlson's attack on this Board's jurisdiction, which is based on its argument that we are unable to order Carlson to pay damages to Mackey. We are authorized to review DER's orders and actions and to draw conclusions from those actions. See Environmental

⁷ We reject Carlson's suggestion that this is inconsistent with the limitation on the agency's jurisdiction over the mine operator, for which it cites National Wildlife Federation v. Lujan, 950 F.2d 765 (D.C. Cir. 1991): (stating that enforcement actions cannot be taken against a miner after bond release under federal SMCRA.) According to what we have said here, DER could not release the final stage of a mine operator's bonds posted pursuant to SMCRA where it has rendered a water supply unusable until after the adequacy of the replacement water supply has been addressed or the operator has agreed to provide an adequate replacement, including provision for the financial matters and a mechanism for dealing with the possibility that the water supply might reestablish itself. See Section 4(g) of SMCRA, 52 P.S. §1396.4(g); Ray Carey v. DER, 1990 EHB 828.

Hearing Board Act, Act of July 13, 1988, P.L. 350, 35 P.S. §7514(a). In ordering Carlson to provide funding to Mackey so that the replacement supply offered by Carlson will meet the requirements of §4.2(f) of SMCRA, DER is not ordering Carlson to pay damages to Mackey but rather is ensuring the adequacy of the replacement supply. Thus, Carlson's attack on this Board's jurisdiction is unfounded.⁸

Increased Operation and Maintenance Costs For Mackey Replacement Supply

The question here is whether the increased costs and effort to Mackey for operating and maintaining the replacement supply are excessive. In the present appeal, Carlson attempts to minimize the five fold increase in operating and maintenance expenses to Mackey by breaking it down to \$16.69 per month and by contending these costs are minimal in view of the risk allegedly associated with the shallow spring which is Mackey's original supply and stressing the allegedly improved water quality effected by the Culligan water filter as opposed to the original spring. The allegations that the treatment system produces treated water of a better quality than the Mackey spring or that the original supply was shallow and thus might have had more risk

⁸ Because Carlson is not being ordered to "compensate" Mackey for the damage to the water supply but to provide an adequate replacement supply, we reject Carlson's arguments that the federal Office of Surface Mining (OSM) regulations have never required an operator to pay compensation to a supply owner and thus that DER's interpretation of an operator's water supply replacement obligations is inconsistent with the federal Surface Mining Control and Reclamation Act, 30 U.S.C. §1201 *et seq.* (federal SMCRA).

attached to it are not supported by any evidence in the record and are not appropriate factors for us to consider in determining the increased operating and maintenance costs to Mackey in any event.⁹

We find the five-fold increase in the cost of operating and maintaining the Mackey water supply to be more than marginally higher. It is excessive.¹⁰

Use of Escrow Account To Provide For Increased Costs

DER does not dispute that it has sought to have Carlson establish an escrow account, individual trust, or similar financial vehicle, in the amount

⁹ While Mackey's ability to pay for the increased operating and maintenance expenses is not at issue, we view the company's argument that an increase of \$16.69 per month is not excessive to be somewhat cold-hearted. Individuals of modest means faced with an unsolicited \$200 annual increase in the cost of operating and maintaining their water supply would find such an increase to be an unwarranted burden.

¹⁰ Carlson's brief argues that we held in Gioia that where the increased costs are not excessive, they fall within "a zone of increased operating and maintenance costs - effectively 'compensatory damages'-which neither DER nor the Board can transfer from Carlson to Mackey" and that Mackey must be compensated for increased costs which fall in this zone through a civil action in Common Pleas Court. Since we have found the increased costs to Mackey are excessive, we need not rule on Carlson's argument, but we wish to clarify what we meant in Gioia. As we have previously in this Adjudication, in Gioia there was no evidence regarding any increased operating and maintenance expenses or effort to the Novotnaks, and we indicated that our ruling did not foreclose the Novotnaks from bringing an action before Common Pleas Court to recover for damage to their water supply. We later noted in footnote 6 in Buffy and Landis that individuals who must incur additional expenses in connection with a replacement water supply should not be forced to bring an action in Common Pleas Court to recover damages, as that would defeat the purpose behind SMCRA of protecting and maintaining the water supply. See 52 P.S. §1396.1. Rather, the supply owner's common law remedy for contamination or diminution of his water supply would be in addition to requiring the operator's compliance with the mandates of §4.2(f) of SMCRA. See, e.g., Hughes v. Emerald Mines Corporation, 303 Pa.Super. 426, 450 A.2d 1 (1982).

of \$7,200 to provide for the operating and maintenance expenses for the replacement supply Carlson has installed for Mackey.¹¹ DER has taken the position that Mackey must have control over the fund provided by Carlson, otherwise the homeowner will not have an adequate replacement supply. DER further takes the stand that financial institutions are well-suited to create a funding vehicle which can exist *ad infinitum*.

We agree that the use of an escrow account, individual trust, or similar financial vehicle is an appropriate mechanism to provide for the increased costs of operating and maintaining the Mackey replacement system.

DER's reluctance to assume the role of escrow agent, as evidenced by footnote 4 of its brief, is not sufficient justification for DER to mandate that financial institutions must handle these matters. While the familiarity of lending institutions with establishing financial vehicles, such as escrow accounts, may be a factor for DER to consider in devising the appropriate means for Carlson provision of funds for the Mackey replacement supply system, there are other factors which DER must explore.

¹¹ Based on what is stated in Joint Exhibit 2, which is a letter dated December 20, 1991 from Carlson to DER's William Allen, DER had advised the company to provide a fund which is 36 times the annual increase in operating and maintenance costs. Since the annual increase here is \$200.24, this is apparently how the amount of \$7,200 for the fund was derived. There is no evidence before us to show whether reasonable costs for factors such as inflation and the amortized costs of replacing the water conditioner system components as they wear out and labor therefor are reflected in the amount of money DER seeks to have Carlson post. Factors such as these should be considered by DER in determining the amount Carlson must make available to provide for the Mackey replacement supply. Without such evidence before us, this Board is unable to determine the present value of a sum which, if invested now, will provide a sufficient income stream to reproduce these additional costs *ad infinitum*, as Carlson's brief requests.

Carlson has raised a legitimate concern regarding whether the escrowed funds will in fact be used for operating and maintaining the replacement supply or for other creature comforts. Likewise, Carlson's concern over the lack of provision for return of the funds to Carlson should the initial Mackey water supply return to its pre-mining quantity and quality and its concern that DER might require it to increase the amount in the fund if the replacement water supply worsens in quality after an escrow account is established are matters which DER should have addressed here. Mackey cannot have the option of spending the money to be provided by Carlson for operating and maintenance of the replacement supply for other purposes, such as for a vacation; the statute directs replacement of the water supply. Moreover, DER should have provided for return of any unused funds to Carlson if, for instance, the Mackey spring reestablishes itself to pre-mining quality, and DER must create a mechanism to make it clear that Carlson will not be required to increase the amount of the fund once it is established.

Accordingly, although we find DER properly ordered Carlson to replace the Mackey water supply, we remand this matter to DER to develop a mechanism for addressing the funds needed to provide a replacement supply adequate in quantity and quality for Mackey *ad infinitum* or for what might turn out to be of a more limited period of time.¹²

¹² We recognize that as this is the first appeal in which the issue of the appropriate funding mechanism for a replacement water supply has arisen, DER will probably want to adopt a uniform procedure to address these issues through regulations proposed to the Environmental Quality Board at some point (footnote continues)

CONCLUSIONS OF LAW

1. This Board has jurisdiction over the parties and the subject matter of this appeal.
2. DER bears the burden of proof pursuant to 25 Pa. Code §21.101(b)(3).
3. A replacement water supply cannot be considered as complying with the requirements of §4.2(f) of SMCRA, 52 P.S. §1396.4(b)(f) and 25 Pa. Code §87.119, where cost of operating and maintenance for the replacement supply and maintenance effort, when compared to the original supply, are excessive. Gioia Coal Company v. DER, 1986 EHB 82.
4. Where the increase in the costs of operating and maintaining the homeowner's replacement water supply and the effort involved in maintenance of the replacement supply, when compared with the cost of operating and maintaining the homeowner's previous water supply and maintenance effort involved therewith, is more than marginally higher, so that the effect on the homeowner is more than *de minimus*, the operating and maintenance cost and maintenance effort associated with the replacement supply is excessive.

(continued footnote)

in the future. As for the amount of the fund Carlson must provide, DER's policy regarding calculation of bond amounts where perpetual treatment is contemplated might be a good starting point for DER. It is not necessary that this be done as to Carlson, however, and we are remanding this matter to DER to address the concerns discussed in this Adjudication within 120 days of the order attached to this Adjudication while we retain jurisdiction. We note that in so doing, we are not necessarily accepting DER's position that it is unable to serve as an escrow agent, and DER should address this issue on remand.

5. The five-fold increase between the costs of operating and maintaining the Mackey original supply and replacement supply (a total annual increase of \$200.24) is more than marginally higher and is excessive.

6. DER did not abuse its discretion in determining Carlson's replacement supply for Mackey failed to satisfy the requirements of §4.2(f) of SMCRA and 25 Pa. Code §87.119.

7. DER did not abuse its discretion in ordering Carlson to bear the operating and maintenance costs for the Mackey replacement supply on a permanent basis. Commonwealth v. Barnes & Tucker Company, 472 Pa. 115, 371 A.2d 461 (1977), appeal dismissed, 434 U.S. 807, 98 S.Ct. 38, 54 L.Ed. 2d 65 (1977).

8. Should the Mackey original supply never return to its pre-mining quality, Carlson may be held responsible for the operating and maintenance costs for the Mackey replacement supply *ad infinitum*.

9. DER abused its discretion by not ensuring the funding mechanism will be used for the Mackey replacement supply, by not providing for return of any unused funds to Carlson, and by not ensuring it is seeking an amount of funding which will be sufficient to cover projected increases in the operating and maintenance costs because of inflation or unexpected increase in those expenses for the Mackey replacement supply.

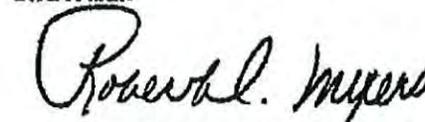
ORDER

AND NOW, this 29th day of October, 1992, it is ordered that the appeal of Carlson Mining Company is dismissed in part, to the extent that DER determined that the Mackey replacement supply does not meet the requirements

of §4.2(f) of SMCRA and ordered Carlson to provide for operation and maintenance of the Mackey replacement supply on a permanent basis. The appeal is also sustained in part, insofar as DER has failed to address concerns relating to the mechanism for funding the Mackey replacement supply. It is further ordered that this matter is remanded to DER to devise, within 120 days of this order, a funding mechanism by which Carlson will provide funding for the Mackey replacement supply in accordance with the foregoing Adjudication. This Board retains jurisdiction over this appeal.

ENVIRONMENTAL HEARING BOARD


MAXINE WOELFLING
Administrative Law Judge
Chairman


ROBERT D. MYERS
Administrative Law Judge
Member


RICHARD S. EHMANN
Administrative Law Judge
Member

Board Member Joseph N. Mack has a dissenting opinion which is attached.

DATED: October 29, 1992

cc: Bureau of Litigation
Library: Brenda Houck
For the Commonwealth, DER:
Michael J. Heilman, Esq.
Western Region
For Appellant:
Stephen G. Allen, Esq.
Philadelphia, PA

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COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL HEARING BOARD
 101 SOUTH SECOND STREET
 SUITES THREE-FIVE
 HARRISBURG, PA 17101-0105
 717-787-3483
 TELECOPIER 717-783-4738

M. DIANE SMITH
 SECRETARY TO THE BOARD

CARLSON MINING

v.

**COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL RESOURCES**

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:

EHB Docket No. 91-547-E

Issued: October 29, 1992

**DISSENTING OPINION OF BOARD MEMBER
JOSEPH N. MACK**

I have reviewed the majority opinion carefully several times and am forced to dissent.

The majority rests its opinion squarely on an interpretation of §4.2(f) of SMCRA, 52 P.S. §1396.4b(f), which authorizes DER to require an operator who affects a public or private water supply to "restore or replace the affected supply with an alternate source of water adequate in quantity and quality for the purposes served by the supply."

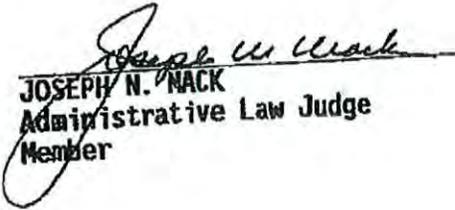
DER acknowledges in its brief, at proposed finding of fact 20, that it has accepted the system installed by Carlson as an adequate replacement. DER, however, argues that there is a further requirement that such replacement supply must be at the same or nearly the same cost to the landowner and that DER has the authority under the statute to require the operator to provide a bond or escrow fund to defer any excessive cost to the landowner.

While I might wish that there was such a requirement in the statute, it is clear from a reading of §4.2(f) that the only requirement is that the replacement of the water supply be adequate as to quality and quantity.

Without further statutory instructions from the legislature, I do not feel that we can engraft on the written word of the legislature the further requirements proposed by DER and the majority opinion.¹

I must therefore respectfully dissent.

ENVIRONMENTAL HEARING BOARD


JOSEPH N. NACK
Administrative Law Judge
Member

DATED: October 29, 1992

cc: Bureau of Litigation
Library: Brenda Houck
For the Commonwealth, DER:
Michael J. Heilman, Esq.
Southwestern Region
For Appellant:
Stephen G. Allen, Esq.
Philadelphia, PA

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¹ In reaching what I believe to be an erroneous result, the majority opinion elevates dicta in the two cases relied upon, i.e., Buffy and Landis, supra, and Gioia, supra, to the level of *stare decisis*.

**BEFORE THE
RECLAMATION COMMISSION**

TINA PATTERSON,	:	
	:	
Appellant,	:	Case No. RC-13-010
	:	
-vs-	:	
	:	
DIVISION OF MINERAL RESOURCES	:	Review of Chief's Order 7354;
MANAGEMENT,	:	Permit D-1173 (Anthony Mining)
	:	
Appellee,	:	
	:	
and	:	<u>INDEX OF EVIDENCE</u>
	:	<u>PRESENTED AT HEARING</u>
ANTHONY MINING, INC.,	:	
	:	
Intervenor.	:	

Before: Sean A. McCarter.

In Attendance: A. Thomas Althausser, Richard Cappell, Fred Dailey, James McWilliams, and Hearing Officer Linda Wilhelm Osterman.

Appearances: Tina Patterson, Appellant *pro se*; Kristina Tonn, Brian Ball, Assistant Attorneys General, Counsel for Appellee Division of Mineral Resources Management; Michael C. Bednar, Counsel for Intervenor Anthony Mining, Inc.

WITNESS INDEX

Appellant's Witnesses:

Tina Patterson	Statement on the Record; Cross Examination
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Appellee's Witnesses:

Tina Patterson
Kyle Baldwin
Cheryl Socotch

Cross Examination
Direct Examination; Cross Examination
Direct Examination; Cross Examination

EXHIBIT INDEX

Appellant's Exhibits:

Appellant's Exhibit 1	Chief's Order 7354; issued June 14, 2013 (4 pages); same as Appellee's Exhibit 6
Appellant's Exhibit 2	Letter from Lanny Erdos (Division) to Paul Carapellotti (Anthony Mining), dated July 31, 2012 (3 pages)
Appellant's Exhibit 3	Letter from Michael C. Bednar to James [sic] and Tina Patterson, dated June 7, 2013 (3 pages)
Appellant's Exhibit 4	Letter from Michael C. Bednar to William and Tina Patterson, dated June 27, 2013 (3 pages)
Appellant's Exhibit 5	EXCLUDED , Notice of Appeal
Appellant's Exhibit 6	EXCLUDED , Letter from Commission, dated July 11, 2013
Appellant's Exhibit 7	EXCLUDED , Letter from Commission, dated July 23, 2013
Appellant's Exhibit 8	Letter from Tri State Water Consultants, no date (1 page); complete version of this letter is found at Appellee's Exhibit 3
Appellant's Exhibit 9	Hague WaterMax RO Owner's Manual, Performance Data Sheet (3 pages)
Appellant's Exhibit 10	Lowes Receipt, dated July 9, 2013 (1 page)

Appellee's Exhibit 5

Request for Informal Review; from Paul Carapellotti (Anthony Mining) to Lanny Erdos (Division); dated March 5, 2012 (2 pages)

Appellee's Exhibit 6

Chief's Order 7354; issued June 14, 2013 (4 pages)

Appellee's Supplement to Record:

Appellee's Supplement to Exhibit 4

Results of four water samples collected as part of the Baldwin investigation; supplements Appellee's Exhibit 4 (12 pages); with Motion to Supplement (3 pages) and Affidavit of Kyle Baldwin (2 pages)

Intervenor's Exhibits:

Intervenor's Exhibit A

Copy of check drawn from Anthony Mining Company, Inc., to the order of Tina Patterson, and in the amount of \$3,700; dated June 21, 2013 (1 page)