

# PROPOSED RULEMAKING

## ENVIRONMENTAL QUALITY BOARD

[ 25 PA. CODE CHS. 87, 88, 89 AND 90 ]

### Water Supply Replacement for Coal Surface Mining

The Environmental Quality Board (Board) proposes to amend the regulations in 25 Pa. Code Chapters 87—90, to ensure compliance with Federal requirements and developments in State law; provide consistency, where possible, with water supply replacement regulations relevant to underground mining; and codify existing practices developed by the Department of Environmental Protection (Department).

This proposed rulemaking was adopted by the Board at its meeting of June 18, 2019.

#### A. *Effective Date*

This proposed rulemaking will be effective upon final-form publication in the *Pennsylvania Bulletin*.

#### B. *Contact Persons*

For further information, contact Sharon Hill, Bureau of Mining Programs, Rachel Carson State Office Building, 5th Floor, 400 Market Street, P.O. Box 8461, Harrisburg, PA 17105-8461, (717) 787-5015; or Joseph Iole, Assistant Counsel, Bureau of Regulatory Counsel, P.O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. This proposed rulemaking is available on the Department's web site at [www.dep.pa.gov](http://www.dep.pa.gov) (select "Public Participation," then "Environmental Quality Board").

#### C. *Statutory Authority*

This proposed rulemaking is authorized under the authority of section 5 of The Clean Streams Law (35 P.S. § 691.5); sections 4(a) and 4.2 of the Surface Mining Conservation and Reclamation Act (PA SMCRA) (52 P.S. §§ 1396.4(a) and 1396.4(b)); section 3.2 of the Coal Refuse Disposal Control Act (52 P.S. § 30.53b); section 7(b) of the Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.7(b)); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20).

#### D. *Background and Purpose*

This proposed rulemaking addresses inconsistencies between the Commonwealth's Surface Coal Mining Program and Federal requirements relating to water supply replacement so that the Commonwealth may maintain primary regulatory authority over coal mining activities in this Commonwealth. This proposed rulemaking also aligns the language regarding water supply replacement for anthracite and bituminous surface mining with underground coal mining to the extent allowed by statute and ensures that the regulations are otherwise consistent with State law and Department practice. These measures will provide clarity to mine owners and operators regarding compliance standards for water supply replacement and protect the rights of water supply owners and users.

#### *Required Consistency of the Commonwealth's Mining Program with Federal Law*

The Federal Surface Mining Control and Reclamation Act of 1977 (30 U.S.C.A. §§ 1201—1328) (Federal SMCRA) "establish[ed] a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations." See 30 U.S.C.A.

§ 1202(a). Federal SMCRA authorizes the Secretary of the Interior, through the Office of Surface Mining Reclamation and Enforcement (OSM), to administer the programs for controlling surface coal mining operations, and to review and approve or disapprove state programs for controlling the same. See 30 U.S.C.A. § 1211(c)(1).

Federal SMCRA allows a state to assume jurisdiction over the regulation of surface coal mining and reclamation operations if the state can administer that program according to Federal standards. See 30 U.S.C.A. § 1253. When a state program is approved by OSM, the state achieves "primacy" over the regulation of its surface coal mining program. The Commonwealth achieved primacy in 1982. See 47 FR 33050, 33076 (July 30, 1982). To maintain its jurisdiction over regulation of coal surface mining activities, the Commonwealth must maintain a state program in accordance with the requirements of Federal SMCRA, and with "rules and regulations consistent with regulations issued by the Secretary." See 30 U.S.C.A. § 1253(a)(1) and (7).

State laws must be consistent with the provisions of Federal SMCRA, see 30 U.S.C.A. § 1255(a), and any provision of state law that provides for more stringent land use and environmental controls and regulations shall not be construed to be inconsistent with Federal SMCRA. See 30 U.S.C.A. § 1255(b). In other words, a state program must be at least as effective as the requirements in Federal SMCRA but may be more stringent.

#### *Required Program Amendments*

By letter dated December 18, 1998, the Department submitted a proposed amendment of the Commonwealth's approved Coal Mining Regulatory Program (Program) to OSM for review and approval. The proposed amendment covered various aspects of the Program and consisted of both statutory changes to PA SMCRA as well as regulations under 25 Pa. Code Chapters 86—90. In May 2005, OSM approved this Program amendment with certain exceptions (2005 OSM conditional approval). OSM approved most of the amendment specific to the replacement of water supplies affected by mining activities but did not approve certain provisions. The disapproved portions of the Program amendment related to water supply replacement include both statutory and regulatory sections as follows:

Section 4.2(f)(4) of PA SMCRA was not approved because it allowed for final bond release when there is an outstanding water supply replacement order. See 30 CFR 938.12(c)(1) (relating to state statutory, regulatory, and proposed program amendment provisions not approved). Sections 87.119(i) and 88.107(i) (relating to hydrologic balance: water rights and replacement) were not approved for the same reason. See 30 CFR 938.12(c)(7).

Sections 87.1 and 88.1 (relating to definitions) defining "de minimis cost increase" and §§ 87.119(a)(1)(v) and 88.107(a)(1)(v) (requiring that a restored or replaced water supply shall not result in more than a "de minimis cost increase" to operate and maintain) were not approved because the Federal regulations require that no additional costs be passed along to the water supply owner. See 30 CFR 938.12(c)(4) and (5).

Sections 87.119(a) and 88.107(a) were not approved to the extent that they did not include a requirement to

provide a temporary replacement water supply. See 30 CFR 938.12(c)(5). Furthermore, they allowed for the replacement supply to be of a lesser quantity and quality than the premining water supply. See 30 CFR 938.12(c)(5). The Federal definition of “replacement water supply” at 30 CFR 701.5 (relating to definitions) includes a reference to temporary replacement water supplies.

Sections 87.119(a)(3) and 88.107(a)(3) were not approved because they allowed for persons with an ownership interest in the water supply to waive the requirements to restore or replace the water supply. The basis for the disapproval was the definition of “replacement water supply” at 30 CFR 701.5, which provides for a waiver only in the limited circumstance where the water supply is not needed for the land use as it exists at the time of the loss and that there is a demonstration that a “suitable alternative water source is available and could be feasibly developed.” 30 CFR 938.12(c)(5).

Sections 87.119(g) and 88.107(g) were not approved because they allowed for operators to recover costs in the event that an operator successfully appeals a Department order to restore or replace a water supply. OSM did not approve these regulations because section 4.2(f)(5) of PA SMCRA, which provided the statutory authority for these regulations, was repealed in 2000 and replaced with 27 Pa.C.S. § 7708 (relating to costs for mining proceedings), and therefore no remaining statutory authority existed to support the regulations. See 30 CFR 938.12(c)(6) and 70 FR 25472, 25484.

In response to OSM’s disapproval of these regulations and to implement the approved Program amendments, the Department developed the following technical guidance documents to address water supply replacement operation and maintenance costs: Increased Operation and Maintenance Costs of Replacement Water Supplies on All Coal and Surface Noncoal Sites (# 562-4000-102), issued on December 2, 2006; Water Supply Replacement and Permitting (# 563-2112-605), issued in 1998 and updated in 2007; and Water Supply Replacement and Compliance (# 562-4000-101), issued in 1999 and updated in October 2007. This proposed rulemaking will codify the procedures outlined in these technical guidance documents. This proposed rulemaking reconciles the outstanding unapproved portions of the Program amendment listed previously and ensures water supply replacement obligations are consistent with Federal law.

*Required Consistency of the Commonwealth’s Mining Program with State Law*

This proposed rulemaking also ensures consistency with State law. The following proposed provisions address regulatory gaps or lack of clarity issues under PA SMCRA:

Proposed amendments to §§ 87.1 and 88.1 revise the definition of “water supply” to explain that soil moisture is not a water supply. The term “water supply” connotes a specific water resource (for example, a well or spring). Soil moisture, on the other hand, is more appropriately regulated under separate Department provisions requiring that mining activities are conducted to minimize disturbance to the prevailing hydrologic balance. See 25 Pa. Code §§ 87.101(a) and 88.291(a) (relating to hydrologic balance: general requirements). These provisions also add a definition of “water supply owner” that includes landowners and water supply companies to reflect terminology used in section 4.2(f) of PA SMCRA. See 52 P.S. § 1396.4b(f).

Proposed amendments to §§ 87.47 and 88.27 (relating to alternative water supply information) clarify the regu-

lations by using the defined term “water supply,” require that the permit application must include calculations regarding the cost of potential replacement; and state that the Department will give advance notice to water supply owners and water supply users whose water supplies are identified as potentially affected.

Sections 87.119a(a) and 88.107a(a) clarify the requirements related to sampling, laboratory analysis and notice to water supply owners and water supply users.

Sections 87.119a(b) and 88.107a(b) clarify that obligations to restore or replace an affected supply attach for any effect to a water supply, even if the effect is minimal, and that operators or mine owners must restore water supplies to meet reasonably foreseeable uses of the existing supply, not only existing uses of the supply.

Sections 87.119a(f) and 88.107a(f) clarify the concepts of “adequate quality” and “adequate quantity” of the replacement supply to more closely mirror the statutory language under section 4.2(f)(1) of PA SMCRA. This includes clarifying that an operator must, under certain circumstances, replace an affected supply with a supply that is of better quality than the Pennsylvania Safe Drinking Water Act standards (35 P.S. §§ 721.1—721.17).

Sections 87.119a(g) and 88.107a(g) clarify the procedure for determining operation and maintenance (O&M) costs of a replacement supply, and that operators or mine owners must cover O&M costs in perpetuity because the obligation attaches to the land, not to the current water supply owner. See, for example, *Carlson Mining v. DER*, 1992 EHB 1401, 1412-16 (Oct. 29, 1992) (*Carlson*).

Sections 87.119a(h) and 88.107a(h) clarify O&M requirements in situations when the current water supply owner or water supply user, or both, releases the obligation under a settlement agreement with the operator or mine owner that complies with the regulations and clarifies that an operator may cover O&M responsibilities for multiple water supplies under one bond.

Sections 87.119a(j) and 88.107a(j) clarify the statutory presumption of liability in PA SMCRA and the available defenses to the presumption. This presumption does not exist in Federal law.

Sections 87.119a(l) and 88.107a(l) add an additional provision that nothing in these regulations would prevent a mine owner or operator from pursuing other legal remedies should they incur costs in restoring or replacing a supply and later determine that some other party was responsible for the pollution or diminution of the water supply.

*Public Outreach*

Prior to the 2005 OSM conditional approval, the Department held six open-house public meetings in May and June of 2004 to gather comments and suggestions regarding existing regulations and policies governing the replacement of private water supplies lost, diminished or degraded by mining activities. These meetings were held at Department facilities across the State after invitation letters were sent to interested parties, including individual property owners who were known to have experienced past water supply problems. Also, news media alerts were issued to promote these meetings. The issues raised at these meetings included items regarding responsibility for water supply impacts, reimbursement for replaced supplies, the rights of water supply owners to information supplied by the mining operators, correct characterization of the existing supply and reasonably foreseeable uses of the supply, and various other sugges-

tions for improving the Program to benefit those who have lost their water supply as a result of mining activities.

The Department evaluated the comments received from the public meetings in conjunction with the 2005 OSM conditional approval and ultimately included several concepts resulting from these meetings in this proposed rulemaking. For example, §§ 87.47 and 88.27 will now require permit applications to include replacement cost calculations, and the Department will notify the water supply owner/users that their supply may be affected. Early identification and characterization of potentially affected water supplies provides the water supply owner/user with adequate notice that the supply may be interrupted; and, it informs them of their rights under the regulations for replacement of the supply. Early identification also promotes an easier path to agreement on replacement options, which is disruptive and often a point of contention between the operator and water supply owner that delays resolution of the claim.

#### *Mining and Reclamation Advisory Board Coordination*

Because the provisions concerning water supply replacement are similar across the various coal regulatory chapters, the Department and the Mining and Reclamation Advisory Board (MRAB) have spent considerable time clarifying language that may differ between surface mining and the approved underground coal mining regulations in Chapter 89 (relating to underground mining of coal and coal preparation facilities) due to variations between the Commonwealth's surface mining and bituminous underground mining statutes. Policy changes to the Surface Mining Program regarding water supply replacement were discussed in the MRAB Regulatory, Legislative and Technical (RLT) committee meeting of January 2005 in response to concerns from the Pennsylvania Coal Association. The committee made various recommendations regarding O&M costs calculations and payments, and replacement of a water supply to a quality and quantity necessary for current and reasonably foreseeable uses.

The presentation of concepts for this proposed rulemaking were discussed with the MRAB beginning on October 19, 2017, during a meeting of the full board. On January 11, 2018, an outline of the proposed changes was presented in a meeting of the RLT committee. Comments were provided by the committee. On April 19, 2018, draft language and responses to previous comments were presented to the committee. The committee supplied verbal and written comments on this draft, some of which were incorporated into the proposed rulemaking. The summary of the primary issues raised by the MRAB follows.

The MRAB questioned the repeated use of the term "reasonably foreseeable uses" throughout the proposed rulemaking. This phrase originated in section 5(e) of the Pennsylvania Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.5(e)) and has been incorporated into the Federally-approved Surface Mining Program through the requirement that the water supply must be equivalent to the previous supply in quality and quantity. To replace the supply with a source that did not match the ability of the previous supply to support plausible future uses, based on existing and proposed land use, would be a failure to meet the standards of replacement. OSM has stated their acceptance of the "reasonably foreseeable uses" concept in this context.

The MRAB also expressed concern for the operator's responsibility to replace a supply if the water supply

owner refused access to the supply for the premining survey. The MRAB stated that if the operator is denied the information from the survey, the operator (and the Department) had no basis for judging the condition of the supply. That is, there would be no baseline from which to assess claims of degradation or diminution during mining activities. While it is disadvantageous to all parties for a water supply owner to refuse the information-gathering process, this does not exempt the operator from responsibility for replacing a supply if evidence can be procured that the supply has been affected by the mining activities. It does, however, provide a rebuttal for the mining operator within the presumption zone. If the operator raises this defense to the presumption, the burden shifts to the water supply owner to present evidence that the supply has been affected by mining, and to the Department to gather additional evidence to determine if mining was the cause. If there is no baseline survey information and a Department inquiry finds that mining activity is responsible for the disruption to the supply, the Department and water supply owner must establish adequate quantity and quality of the replacement supply based on data from similar supplies in the area and from aquifer characteristics, as well as the existing and reasonably foreseeable uses.

The MRAB also expressed the concern that water supply owners who replace their supply on their own and then seek reimbursement from the operator will install a supply that is higher performing than the previous supply, which will exceed the cost of replacement with an equivalent supply. This proposed rulemaking makes clear that the operator is not required to replace the affected supply with a system that exceeds regulatory requirements and that the operator can dispute the water supply owner or water supply user's reimbursement costs by obtaining comparable estimates. In this scenario, the Department determines the cost of reimbursement. The water supply user may install any system they choose, but any additional cost beyond the specifications of the previous supply will not be borne by the mining operator.

The MRAB inquired when the quality of a replacement supply would need to meet standards beyond baseline or the Commonwealth's drinking water standards. While the Department concedes this would be a rare occurrence, it is justified in some cases. The Department provides an explanation for this exception, which the Department anticipates will be rare, in the summary that follows in Section E of this preamble for §§ 87.119a(f) and 88.107a(f).

The MRAB also questioned the basis for the calculations of O&M costs. The Department contends that these calculations, also used for underground and noncoal O&M calculations, are a fair means to determine accurate costs. Variables within the calculations that are tied to economic factors and affect current costs are subject to recalculation annually. The Department will consider proposed alternative means during the comment period for this proposed rulemaking. Having been applied for over 12 years, the existing calculations have proved to be suitable and an alternative calculation that meets the necessary criteria has not been proposed.

The RLT committee recommended proceeding with the proposed rulemaking at the April 19, 2018, meeting and advised the MRAB of their recommendation also on this date. The MRAB was presented with the draft language on July 19, 2018, and requested a revised draft reflecting minor changes to the proposed language for clarity. In further consultation with the RLT committee on October

11, 2018, additional revisions were incorporated. The MRAB recommended that the Department proceed with the rulemaking process for the proposed rulemaking on October 25, 2018. Subsequently, additional clarifications and modifications are made to further conform certain provisions to State and Federal law.

#### *E. Summary of Regulatory Requirements*

The respective portions of §§ 87.119 and 88.107 will be extensively reorganized for clarity. For ease of reference, these sections will be reserved and the new §§ 87.119a and 88.107a, respectively, will be adopted.

Several minor editorial changes are also made throughout.

#### *§§ 87.1 and 88.1 Definitions*

“De minimis cost increase” is proposed to be removed to address the Federal requirement that no additional cost be passed along to the water supply owner. See 30 CFR 938.12(c)(5). OSM disapproved the concept of a de minimis cost increase because it is not clear what costs would be non-calculable and how that criteria could be determined. As the Department had defined the term, any amount that is 15% or greater of the annual operating and maintenance costs of the previous supply or was \$60 per year or greater, was considered more than a de minimis increase. O&M costs include all additional costs paid in order to constitute an equivalent replacement supply.

“Operation and maintenance costs” is proposed to be added as a defined term. This new definition would include all costs incurred by the water supply owner or water supply user associated with using the water supply for the purposes served. Examples of these costs are provided in this definition.

“Water supply” is proposed to be revised to specify that natural soil moisture is not a supply for purposes of §§ 87.47, 88.27, 87.119a and 88.107a. This proposed revision clarifies that the Department does not interpret the water supply replacement provisions in PA SMCRA to apply to impacts to natural soil moisture. Impacts to natural soil moisture from mining activities are regulated under separate Department provisions requiring that mining activities are conducted to minimize disturbance to the prevailing hydrologic balance. See 25 Pa. Code §§ 87.101(a) and 88.291(a). Soil moisture is a diffuse source dependent primarily on precipitation events and soil properties, though the water table may be relevant. In contrast, the Department interprets “water supply” to include specific water resources (for example, a well or spring) used for human consumption or, in terms of agriculture, animal watering, or in other uses where the transmittal of water from an existing source to a use location is required (for example irrigation, washing or dust control).

A definition for “water supply owner” is proposed to be included as the term is used repeatedly throughout to avoid repetition of using both terms “landowner” and “water supply company” in each provision.

The definition of “water supply survey” is proposed to be relocated from §§ 87.1 and 88.1 to §§ 87.119a(a) and 88.107a(a), respectively. Revisions to the water supply survey requirements are described in those sections as follows.

#### *§§ 87.47 and 88.27 Alternative water supply information*

Sections 87.47 and 88.27 are proposed to be revised to specify that any “water supply” which may be affected

must be identified, and that the permit application shall also include replacement cost calculations for these water supplies. There is also additional clarification that the Department will supply notice to water supply owners for those supplies that may be affected. Early identification and characterization of these potentially affected water supplies provides the water supply owner with adequate notice that the supply may be interrupted and notice of their rights under the regulations for replacement of the supply. Replacement options may cause a temporary disruption of the supply or inconvenience to the water supply owner. Agreement on the method and costs of a replacement can be contentious between the operator or mine owner and water supply owner. Early identification promotes an easier path to agreement and less inconvenience to the water supply owner.

#### *§§ 87.119 and 88.107 Hydrologic balance: water rights and replacement*

These sections are proposed to be reserved and replaced with §§ 87.119a and 88.107a, respectively.

#### *§§ 87.119a(a) and 88.107a(a) Water supply surveys*

These subsections are proposed to detail the requirements for the water supply survey and are expanded from the previous definition of “water supply survey” to provide greater clarity regarding the requirements of the survey.

The chemical and physical characteristics of the water to be measured are listed in subsection (a)(1)(iii). An operator or mine owner is excused from collecting information if the required collection measures pose an excessive inconvenience to the water supply owner or water supply user, or in the case of supplies that have existing treatment, if collecting a sample of untreated water is infeasible. These exceptions address situations such as when an operator or mine owner would have to excavate or remove a structure to gain access to a well or spring, or, for supplies with existing treatment, when there is no reasonable option to collect untreated water without risking contamination of the supply (that is, no port in the piping to obtain the water). The Department will make its determination that a scenario constitutes an excessive inconvenience or that collection is infeasible on a case-by-case basis. The operator or mine owner is required to use a certified laboratory for analysis of all water samples to ensure valid results.

Subsection (a)(2) is proposed to require the operators or mine owners to submit the results of the water supply survey to the Department, the water supply owner and water supply user prior to the issuance of a mining permit.

Under subsection (a)(3) of this proposed rulemaking, an operator or mine owner must complete a water supply survey prior to the time a water supply is susceptible to mining-related effects. All water supply surveys will likely be done during the initial surface mining application process, but some flexibility is provided in consideration of the extended duration of the life of the mine during which time additional water supplies may be developed within the original survey area.

Updates to the survey may be needed if the water uses change, a new supply replaces the original surveyed supply or some other groundwater influence occurs throughout the life of the operation. This additional information is required under the existing regulation relating to reporting of new information.

Subsection (a)(4) of this proposed rulemaking, regarding the rejection of surveys by the water supply owner, reorganizes requirements under existing subsections (c)

and (d) of §§ 87.119 and 88.107 regarding “defenses to presumption of liability” and “notification to the Department.” To alert operators of their requirement to document certain scenarios to preserve certain defenses, this proposed subsection reiterates and explains in an expanded form these requirements within the context of the water supply survey. In a situation where the operator is prohibited from gathering information about a water supply by the owner, the operator must show that they attempted to conduct the survey and supply evidence that the owner did not respond or denied the request.

*§§ 87.119a(b) and 88.107a(b) Water supply replacement obligations*

These subsections are proposed to be amended to include additional clarifications. There is no negligible limit to affecting a water supply and partial responsibility cannot feasibly be determined. If any effect on the supply is presumed or demonstrated as resulting from mining, the operator or mine owner is responsible for restoring or replacing the supply with a permanent alternative source adequate for the purposes served. The purposes served include any reasonably foreseeable uses of the water supply. OSM found the “reasonably foreseeable use” requirement to be an acceptable criterion for adequacy of a replacement supply during their December 27, 2001, review of the water supply replacement amendments to the Underground Mining Program. The concept of “reasonably foreseeable uses” is contained in the guidance document Water Supply Replacement and Permitting (# 563-2112-605).

*§§ 87.119a(c) and 88.107a(c) Temporary water supplies*

Sections 87.119a(c) and 88.107a(c) are proposed to include requirements for a temporary water supply that must be provided within 24 hours if the water supply owner or water supply user is without a readily available alternate source of water. The supply must be adequate to meet the premining needs. A water supply owner or water supply user’s needs are considered to include all needs that existed prior to impact and additional needs that arise between the time of impact and the time a permanent replacement water supply is established, provided those needs were within the capacity of the original water supply. The Department may determine in a preliminary review that the water supply loss is not related to the mining activity in which case the operator or mine owner will not be required to install a temporary supply. This determination may not be possible, however, within a 24-hour time frame, but the District Mining Office personnel who investigate water loss claims stated that they can regularly make this preliminary determination within 48 hours of notification of an impacted supply.

*§§ 87.119a(d) and 88.107a(d) Immediate replacement of water supply by the Department*

Sections 87.119a(d) and 88.107a(d) are proposed to address the immediate replacement of a water supply by the Department and the Department’s authority to recover costs is relocated verbatim from existing provisions in §§ 87.119(e) and 88.107(f), which restate section 4.2(f)(3) of PA SMCRA.

*§§ 87.119a(e) and 88.107a(e) Reimbursement*

Sections 87.119a(e) and 88.107a(e) are new requirements that are proposed to address reimbursement. In practice, reimbursement is negotiated when the water supply owner or water supply user has replaced the supply themselves, and it is later determined that the operator or mine owner is responsible for the water supply problem. The water supply owner or water supply

user may not have been aware of the water replacement rights or could not wait to have a functional supply restored.

While there is no similar Federal provision, OSM agrees that this reimbursement is an adequate means for the operator to achieve the purpose of Federal SMCRA to accept responsibility for a replacement of a water supply. The Department has included a process for the operator or mine owner to dispute the cost of a replacement supply if the new supply appears to be in excess of the premining characteristics of the supply, the purposes served by the supply, and reasonably foreseeable uses, that is, in excess of what the operator or mine owner would be required to replace.

The Department would then determine the fair cost of the reimbursement based on the evidence supplied by the operator or mine owner to that effect. A reasonable time period for reimbursement claims is limited to that of active mining and reclamation. The Department concluded that the 5-year period until final bond release is deemed to be adequate time for any reimbursement claims to be made known to the Department. The time limit for filing a reimbursement claim would not affect an operator’s obligation to restore or replace an impacted water supply if the impact is discovered after final bond release.

*§§ 87.119a(f) and 88.107a(f) Adequacy of permanently restored or replaced water supply*

Language regarding adequacy of the replacement supply is currently located in existing regulations under §§ 87.119(a) and 88.107(a). The criteria for whether a restored or replaced supply is adequate in quality and quantity are proposed to be located under their own subsection, subsection (f), and the concepts of “adequate quality” and “adequate quantity” have been expanded. The concept of a de minimis cost increase is removed from the reference to operation and maintenance costs.

The replacement supply must be comparable to the premining supply as documented in the water supply survey or meet standards of the Pennsylvania Safe Drinking Water Act. There may be rare circumstances where the water supply owner or water supply user can demonstrate that water quality beyond Pennsylvania Safe Drinking Water Act standards is necessary to meet the use served by the original supply. One example is where a replacement water supply includes a water softener to meet quality requirements and the resulting water would otherwise be detrimental to a water user with a low sodium dietary requirement. The Department believes that these instances would be rare and required only when compelling evidence from the water user can be provided. For a nondomestic supply, the quality must also be adequate for the reasonably foreseeable uses.

The standards for quantity must consider premining uses and the reasonably foreseeable uses of the original water supply. For example, the supply must be adequate to serve a reasonable number of residents as suitable for the home even if that many people do not reside in the home at the time of the replacement. Similarly, a nondomestic supply must be comparable to the premining supply in terms of reasonable expansion of the foreseeable uses. (For example, an agricultural supply should provide quantity adequate to use the existing facilities to their reasonable capacity.) Installation of storage systems/holding tanks is allowed only as a last effort after other alternatives to provide adequate quantity are attempted. These revisions are necessary to ensure that the Com-

monwealth's standards for replacement water supplies are no less effective than the Federal definition of "replacement of water supply" in 30 CFR 701.5, which requires that the replacement include an equivalent water delivery system. Connection to a public water supply would generally fulfill both quantity and quality requirements (with the additional O&M costs paid by the operator or mine owner) even when the water supply owner or water supply user objects to this source by personal preference.

The replacement supply must be fully functional to achieve quality and quantity, which means the operator or mine owner is responsible for all equipment and structures to put it into immediate service. This would not include, for example, replacement plumbing for reasons other than making the supply functional.

§§ 87.119a(g) and 88.107a(g) *Increased operation and maintenance costs*

Sections 87.119a(g) and 88.107a(g) are proposed to describe the procedure for determining O&M costs and providing for these costs so that the restored or replaced water supply is no more costly to operate and maintain than the original water supply. There are no de minimis limits to the cost increases. If the operation and maintenance costs of the restored or replaced water supply are higher than those of the original water supply, the operator or mine owner must make provisions to permanently cover the increased costs. To not do this would render the replacement a "lesser" supply, which is not allowed by Federal requirements as demonstrated by OSM's disapproval.

This proposed rulemaking is consistent with existing Department policy for calculating and providing O&M costs and time frames to accomplish the steps involved.

The duration of time for which an operator is required to pay O&M costs arose during previous discussions with stakeholders when the concept was placed into the Technical Guidance Document Increased Operation and Maintenance Costs of Replacement Water Supplies (562-4000-102). Commenters to this policy disagreed with the Department's position that the costs run with the land and not the owner at the time of the replacement. The concept has also been challenged before the Environmental Hearing Board (EHB). See, for example, *Carlson; Buffy and Landis v. DER*, 1990 EHB 1665, 1701 (*Buffy*); and *Lang et al. v. DEP*, 2003 EHB 145.

The EHB has explained that operators' (or mine owners') obligation to pay costs is permanent because a replacement supply which costs more to operate and maintain than the previous supply does not meet the requirements in section 4.2(f) of PA SMCRA for adequate quantity and quality. The obligation has been described by the EHB, in both *Buffy* and *Carlson*, as "ad infinitum" unless the current owner executes a valid settlement that releases the operator from obligation for continued payment as provided in the proposed subsections §§ 87.119a(g)(4) and (h)(1) and 88.107a(g)(4) and (h)(1).

If the water supply owner agrees, the operator can satisfy its obligation regarding increased cost at any time through a one-time payment to the water supply owner in an amount covering the present worth of the increased annual operation and maintenance cost for a period agreed to by both parties. Otherwise, a bond is posted for the amount calculated as specified to ensure that the water supply owner will receive the payments in the event the permit is forfeited for any reason.

§§ 87.119a(h) and 88.107a(h) *Special provisions for operation and maintenance costs*

Sections 87.119a(h) and 88.107a(h) are proposed to clarify two provisions for O&M costs: when the ownership of the supply changes; and if there are multiple supplies that have been replaced with associated increase in costs. As previously mentioned, previous discourse on the permanent nature of the O&M costs determined that the obligation was not limited to the current water supply owner. However, the water supply owner may choose to release the obligation through a settlement as described prior to selling the parcel with the supply. The new water supply owner would then assume the present costs of operating the supply with full knowledge of the discharged responsibility agreement.

The Department determined that it is reasonable to limit the operator's or mine owner's choice to consolidate O&M responsibilities under one bond provided that the bond is sufficient for the total of all supplies determined to be covered.

§§ 87.119a(i) and 88.107a(i) *Waivers*

Sections 87.119a(i) and 88.107a(i) are proposed to address the compensation as an alternative to replacement. PA SMCRA requires replacement of the water supply, therefore, compensation as an alternative to replacing the supply is generally not allowed. A water supply owner or water supply user may waive the operator's or mine owner's responsibility to replace a water supply only in the situation where the supply is not necessary to achieve the approved post-mining land use. The operator or mine owner may not decide that the supply can be abandoned; the Department must make the determination that abandonment is appropriate and that all parties of interest knowingly and willingly agree to abandon the water supply.

§§ 87.119a(j) and 88.107a(j) *Presumption of liability*

Sections 87.119a(j) and 88.107a(j) recite provisions from PA SMCRA that provide that the operator or mine owner is presumed to be liable for water supply pollution and diminution within 1,000 feet of areas affected by mining (see 52 P.S. § 1396.4b(f)(2)). These subsections specify that the presumptive area includes support areas but does not include haul and access roads and that there are some exceptions. (For example, bacteriological contamination of a water supply is not reasonably associated with mining activity.)

The existing subsections also restate five defenses to the presumption that exist in PA SMCRA, including one defense that the operation is located outside the 1,000-foot area. This proposed revision makes no changes to the statutory defenses but clarifies the criteria for the operator or mine owner to be excluded from the presumption of responsibility. First, the supply must be accurately located outside the 1,000-foot perimeter to the affected surface mining areas. Support areas are included as "surface mining activities," defined in Chapter 86 (relating to surface and underground coal mining: general).

Other defenses to presumption of responsibility include the following:

- 1.) The water supply owner refused to allow the operator to collect information about the existing water supply (that is, the water supply survey) prior to mining. During the application process, the water supply owner is provided with the survey and advised of their rights under the law. If they deny access to the operator or mine

owner, and the operator or mine owner cannot accurately assess the condition and quality of the supply, then the presumption is rebutted.

2.) The water supply owner or water supply user refused access to the supply to determine the extent of pollution or diminution. As in the first defense, listed previously, the operator or mine owner cannot accurately assess the claim that the condition or quality of the supply has been impacted, and therefore the presumption is rebutted.

3.) After collecting information, the operator or mine owner can demonstrate that there is some cause other than the mining activity that impacted the water supply.

4.) The operator or mine owner can demonstrate that the pollution or diminution existed prior to commencing mining activities.

If the operator or mine owner asserts that one or more defenses apply, the operator or mine owner must provide supporting evidence to the Department.

The refusal of access to survey or investigate a water supply may only be used to nullify the presumption of liability. It does not negate the potential responsibility to replace the supply if mining activity is the cause of the disruption. If a water supply is within 1,000 feet, the burden is on the operator to replace the supply or rebut the presumption of liability. When outside 1,000 feet, the burden is on the water supply owner, water supply user or the Department to show that the mining activity is the cause.

Where the affected supply lies within the 1,000-foot presumption of liability area but has been rebutted for a reason provided in this subsection, the burden of evidence shifts to the water supply owner, water supply user or the Department to demonstrate the operator or mine owner is responsible for the disruption. The Department gathers additional information in an investigation of the complaint, just as with a claim outside the 1,000-foot area, to determine if the cause is mining-related.

*§§ 87.119a(k) and 88.107a(k) Operator cost recovery*

Sections 87.119a(k) and 88.107a(k) replace existing provisions in §§ 87.119(g) and 88.107(g) that were disapproved by OSM in 2005 due to the repeal of the underlying provision that was section 4.2(f)(5) of PA SMCRA. See the act of December 20, 2000 (P.L. 980, No. 138) 27 Pa.C.S. § 7708 (relating to costs for mining proceedings). These subsections are proposed to address an operator's or mine owner's ability to recover costs by referencing 27 Pa.C.S. § 7708, the current statute related to costs for mining proceedings.

*§§ 87.119a(l) and 88.107a(l) Other remedies*

Sections 87.119a(l) and 88.107a(l) are proposed to clarify that nothing in these regulations would prevent a water supply owner or water supply user from pursuing any other remedy provided in law or equity when claiming pollution or diminution of a water supply. These subsections also provide that an operator or mine owner is not prevented from pursuing other legal remedies should they incur costs in restoring or replacing a supply that experienced pollution or diminution caused by third parties.

*§§ 87.119a(m) and 88.107a(m) Issuance of new permits*

Sections 87.119a(m) and 88.107a(m) are proposed to remove language from existing §§ 87.119(i) and 88.107(i) that indicated that a Department order to restore or replace a water supply would not affect final bond

release. OSM did not approve this section as previously written because it could be construed as allowing final bond release while a water supply replacement order was in effect. Consistent with the Department's authority under section 4(g) of PA SMCRA, and as codified in the mining regulations in §§ 86.172 and 86.174 (relating to criteria for release of bond; and standards for release of bonds), the Department will approve Phases 1 and 2 of bond release as requested by the operator if the reclamation standards for these areas have been met. However, final bond release, Phase 3, will not be approved if an order is outstanding because the standards of PA SMCRA will not have been fully met.

*§§ 87.119a(n) and (o) and 88.107a(n) and (o) Department authority and exceptions*

These sections are proposed to change the reference from §§ 87.119(j) and (k) and 88.107(j) and (k) to the proposed designation in §§ 87.119a(n) and (o) and 88.107a(n) and (o). There are no changes made to the existing provisions currently at §§ 87.119(j) and (k) and 88.107(j) and (k), respectively.

*§§ 89.173 and 90.116a Performance standards and hydro-logic balance*

These sections are revised to change the reference of § 87.119 to the proposed designation in § 87.119a.

*§ 88.381 General requirements*

This section is revised to change the reference of § 88.107 to the proposed designation in § 88.107a.

*F. Benefits, Costs and Compliance*

*Benefits*

Because the revisions incorporated in this proposed rulemaking will resolve inconsistencies between existing Department regulations and Federal requirements, they will allow the Commonwealth to maintain primary regulatory authority over coal mining activities. This proposed rulemaking will also codify mine operator responsibility that exists under State law and as articulated in Department policy documents, which will therefore provide clarity to mine operators regarding compliance standards for water supply replacement and protect the rights of water supply owners and users.

The consolidation of requirements into the surface mining chapters of the regulations promotes public understanding of these rights and responsibilities. Both water supply owners and surface coal mine operators will benefit by having these requirements in the mining regulations published in the *Pennsylvania Code* instead of in Department policy documents. In particular, this proposed rulemaking now clarifies that if a water supply is presumed to be affected by mining, the owner of that supply is entitled to temporary water, saving them a potential cost of around \$1,000 to \$2,000.

The Department surveyed the District Mining Offices for information regarding water supply replacement. The responses showed that claims for water supply replacement in association with surface mines are low in number per year and are usually easily resolved between the water supply owner and operator or mine owner. This proposed rulemaking outlines a process to ensure that water losses are anticipated in advance to the reasonable extent possible so that the water supply user is spared excessive inconvenience and interruption to the supply and that operation and maintenance cost agreements can be determined fairly and concluded expeditiously.

*Compliance costs*

This proposed rulemaking is likely to have no impact on existing costs for compliance. The requirements included in this proposed rulemaking are largely based on Federal requirements or developments in State law that are currently implemented through Department policy; therefore, nothing in this proposed rulemaking is likely to increase or decrease costs to the operator or mine owner.

*Compliance assistance plan*

Compliance assistance for this proposed rulemaking will be provided through the Department’s routine interaction with trade groups and individual applicants. There are about 400 licensed surface coal mining operators in this Commonwealth that will be subject to this proposed rulemaking.

The Department will update Program guidance and provide information on the web site to assist mine operators with compliance.

*Paperwork requirements*

This proposed rulemaking does not require additional paperwork. Forms already exist to collect the information requirements to be supplied by the mine operator with regards to this proposed rulemaking. The surface coal mining application sections applicable to water supplies will require minor revisions to reflect the regulatory changes. This will be done in conjunction with the MRAB at a later date. The form regarding the Abandonment of Water Supply Agreement will be revised to remove the “de minimus” language. A new form, Model Water Supply Settlement Agreement and Release, is proposed that can be used when the mine owner or operator enters into an agreement with the water supply owner to provide a replacement supply and all the requirements entailed.

*G. Pollution Prevention*

The Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101—13109) established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance. This proposed rulemaking has minimal impact on pollution prevention since it is predominantly focused on updating regulations to reflect current Federal requirements, amendments to state statutes and references to citations.

*H. Sunset Review*

The Board is not proposing a sunset date for these regulations, since they are needed for the Department to carry out its statutory authority. The Department will continue to closely monitor these regulations for their effectiveness and recommend updates to the Board as necessary.

*I. Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on October 15, 2019, the Department submitted a copy of this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the House and Senate Environmental Resources

and Energy Committees. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections must specify the regulatory review criteria in section 5.2 of the Regulatory Review Act (71 P.S. § 745.5b) which have not been met. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the rulemaking, by the Department, the General Assembly and the Governor.

*J. Public Comments*

Interested persons are invited to submit to the Board written comments, suggestions, support or objections regarding this proposed rulemaking. Comments, suggestions, support or objections must be received by the Board by December 2, 2019. Comments may be submitted to the Board online, by e-mail, by mail or express mail as follows.

Comments may be submitted to the Board by accessing eComment at <http://www.ahs.dep.pa.gov/eComment>.

Comments may be submitted to the Board by e-mail at [RegComments@pa.gov](mailto:RegComments@pa.gov). A subject heading of this proposed rulemaking and a return name and address must be included in each transmission.

If an acknowledgement of comments submitted online or by e-mail is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt. Comments submitted by facsimile will not be accepted.

Written comments should be mailed to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477. Express mail should be sent to the Environmental Quality Board, Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301.

PATRICK McDONNELL,  
*Chairperson*  
*Environmental Quality Board*

**Fiscal Note:** 7-545. No fiscal impact; (8) recommends adoption.

**Annex A**

**TITLE 25. ENVIRONMENTAL PROTECTION**  
**PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**SUBPART C. PROTECTION OF NATURAL RESOURCES**  
**ARTICLE I. LAND RESOURCES**  
**CHAPTER 87. SURFACE MINING OF COAL**  
**Subchapter A. GENERAL PROVISIONS**

**§ 87.1. Definitions.**

The following words and terms, when used in this chapter, have the following meanings unless the context clearly indicates otherwise:

\* \* \* \* \*

*Degree*—The inclination from the horizontal.

[ *De minimis cost increase*—For purposes of § 87.119 (relating to hydrologic balance: water rights and replacement), a cost increase which meets one of the following criteria:



(i) Is less than 15% of the annual operation and maintenance costs of the previous water supply that is restored or replaced.

(ii) Is less than \$60 per year. ]

*Disturbed area*—An area where vegetation, topsoil or overburden is removed or upon which topsoil, spoil, coal processing waste or noncoal waste is placed by surface coal mining activities. Those areas are classified as disturbed until reclamation is complete and the performance bond or other assurance of performance required by Chapter 86 Subchapter F (relating to bonding and insurance requirements) is released.

\* \* \* \* \*

*Noxious plants*—Species that have been included on official State lists of noxious plants.

Operation and maintenance costs—All costs incurred by the water supply owner or water supply user associated with utilizing that supply for the purposes served. Examples of these costs include electricity, chemicals, treatment system maintenance, public water fees and equipment replacement costs.

*Outslope*—The face of the soil or embankment sloping downward from the highest elevation to the toe.

\* \* \* \* \*

*Water supply*—For the purpose of §§ 87.47 and 87.119a (relating to alternative water supply information; and hydrologic balance: water rights and replacement) [ and § 87.119 ], an 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. Natural soil moisture utilized by vegetation or crops is not a water supply.

Water supply owner—Landowner or water supply company.

[ *Water supply survey*—

(i) The collection of reasonably available information for a water supply to establish:

(A) The location, type and use of the water supply.

(B) The chemical and physical characteristics of the water.

(C) The quantity of the water.

(D) The physical description of the water supply, including the depth and diameter of the well, length of casing and description of the treatment and distribution systems.

(E) Hydrogeologic data such as the static water level and yield determination.

(ii) Reasonably available information is information which can be collected without extraordinary effort or the expenditure of excessive sums of money. ]

*Water table*—The upper surface of a zone of saturation, where the body of groundwater is not confined by an overlying impermeable zone.

Subchapter C. SURFACE COAL MINES: MINIMUM REQUIREMENTS FOR INFORMATION ON ENVIRONMENTAL RESOURCES

§ 87.47. Alternative water supply information.

The application shall identify the extent to which the proposed surface mining activities may result in contamination, diminution or interruption of [ **an underground or surface source of water** ] **any water supply** within the proposed permit or adjacent area [ **for domestic, agricultural, industrial or other legitimate use** ]. If contamination, pollution, diminution or interruption may result, then the description shall identify the means to restore or replace the affected water supply in accordance with § [ 87.119 ] **87.119a** (relating to hydrologic balance: water rights and replacement), **including cost calculations. The Department will notify the owner of any potentially affected supply.**

Subchapter E. SURFACE COAL MINES: MINIMUM ENVIRONMENTAL PROTECTION PERFORMANCE STANDARDS

§ 87.119. [ Hydrologic balance: water rights and replacement ] Reserved.

[ (a) *Water supply replacement obligations.* The operator of any mine or a person engaged in government-financed reclamation who 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 water supply.

(1) To be adequate, the restored or replacement water supply, at a minimum, shall:

(i) Be as reliable as the previous water supply.

(ii) Be as permanent as the previous water supply.

(iii) Not require excessive maintenance.

(iv) Provide the owner and the user with as much control and accessibility as exercised over the previous water supply. The use of a public water supply as a replacement water supply provides the owner and the user adequate control and accessibility.

(v) Not result in more than a de minimis cost increase to operate and maintain.

(2) If the operating and maintenance costs of the restored or replacement water supply are more than a de minimis cost increase, the operator shall provide for the permanent payment of the increased operating and maintenance costs of the restored or replacement water supply.

(3) The requirement contained in this subsection to restore or replace an affected water supply or an individual requirement of paragraphs (1) and (2) may be waived. The waiver shall be in writing on a form prepared by the Department. Everyone who possesses an ownership interest in the water supply shall sign the waiver. The form shall be recorded at the office of the recorder of deeds in the county in which the water supply is situated and a notarized copy of the form shall be provided to the Department.

**(b) Presumption of liability for pollution.**

(1) It shall be presumed, as a matter of law, that a surface mine operator or mine owner is responsible without proof of fault, negligence or causation for all pollution, except bacteriological contamination, and diminution of public or private water supplies within 1,000 linear feet (304.80 meters) of the boundaries of the areas bonded and affected by coal mining operations, areas of overburden removal and storage and support areas except for haul and access roads.

(2) If surface mining activities are conducted on areas which are not permitted or bonded, it shall be presumed, as a matter of law, that the surface mine operator or mine owner is responsible without proof of fault, negligence or causation for all pollution, except bacteriological contamination, and diminution of public or private water supplies within 1,000 linear feet (304.80 meters) of the land affected by the surface mining activities.

(c) *Defenses to presumption of liability.* There are only five defenses to the presumption of liability provided in subsection (b). For any of the five defenses to apply, the mine operator or mine owner shall affirmatively prove by a preponderance of evidence that one or more of the following conditions exists:

(1) The landowner or water supply company refused to allow the surface mine operator or mine owner access to conduct a water supply survey prior to commencing surface mining activities.

(2) The water supply is not within 1,000 linear feet (304.80 meters) of:

(i) The boundaries of areas bonded and affected by coal mining operations, areas of overburden removal and storage and areas used for support but not including haul and access roads.

(ii) The boundaries of areas affected by surface mining activities in areas which are not bonded.

(3) The pollution or diminution existed prior to the surface mining activities as evidenced by a water supply survey conducted prior to commencing surface mining activities and as documented in the approved surface mine permit application submitted to the Department prior to permit issuance.

(4) The pollution or diminution occurred as a result of some cause other than the surface mining activities.

(5) The landowner, water supply user or water supply company refused to allow the surface mine operator or mine owner access to determine the cause of pollution or diminution or to replace or restore the water supply.

(d) *Notification to Department.* The surface mine operator or mine owner shall notify the Department and provide all information which supports a defense to the presumption of liability when one or more of the five defenses to the presumption of liability provided in subsection (c) are met. If a surface mine operator's or mine owner's defense to the presumption of liability is based on the conditions of subsection (c)(1), the operator or owner shall submit evidence to the Department demonstrating that the landowner or water supply company was notified by certified mail or personal

service that the refusal of access to conduct a water supply survey could be used to rebut a presumption of liability.

(e) *Immediate replacement of water supply.* If the Department finds that immediate replacement of an affected water supply used for potable or domestic purposes is required to protect public health or safety and the surface mine operator or mine owner has failed to comply with an order issued under section 4.2(f) of SMCRA (52 P.S. § 1396.4b(f)), the Department may use moneys from the Surface Mining Conservation and Reclamation Fund to restore or replace the affected water supply.

(f) *Department cost of recovery.* The Department will recover the costs of restoration or replacement, the costs of temporary water supply and costs incurred for design and construction of facilities from the responsible surface mine operator or mine owner. Costs recovered will be deposited in the Surface Mining Conservation and Reclamation Fund.

(g) *Operator cost recovery.* A surface mine operator or mine owner who appeals a Department order, provides a successful defense during the appeal to the presumptions of liability and is not otherwise held responsible for the pollution or diminution is entitled to recovery of reasonable costs incurred, including, but not limited to, the costs of temporary water supply, design, construction, and restoration or replacement costs from the Department.

(h) *Other remedies.* Nothing in this section prevents a landowner, water supply user or water supply company who claims pollution or diminution of a water supply from pursuing any other remedy that may be provided for in law or in equity.

(i) *Issuance of new permits.* A Department order issued under this section which is appealed will not be used to block issuance of new permits or the release of bonds when a stage of reclamation work is completed.

(j) *Department authority.* Nothing in this section limits the Departments authority under section 4.2(f)(1) of SMCRA.

(k) *Exception.* A surface mining operation conducted under a surface mining permit issued by the Department before February 16, 1993, is not subject to subsections (b)—(i), but is subject to subsections (a) and (j). ]

**§ 87.119a. Hydrologic balance: water rights and replacement.**

**(a) Water supply surveys.** The operator or mine owner shall conduct a survey of the quantity and quality of all water supplies within the permit area and those in adjacent areas that may be affected by mining activities, except when the water supply owner denies the operator or mine owner access for the survey.

**(1) The survey must include the following information to the extent that it can be collected without excessive inconvenience to the water supply owner or water supply user:**

- (i) The location and type of water supply.
- (ii) The existing and reasonably foreseeable uses of the water supply.
- (iii) The chemical and physical characteristics of the water, including, at a minimum, total dissolved solids or specific conductance corrected to 25°C, pH, total iron, total manganese, acidity, alkalinity and sulfates. Additional parameters, including hardness and total coliform, may be required by the Department based on the local aquifer conditions and the characteristics of the water supply and uses. An operator or mine owner who obtains water samples in a premining or postmining survey shall utilize a certified laboratory to analyze the samples. For water supplies with existing treatment, the treatment system must be documented and a chemical analyses of the untreated water shall be obtained if a sample that bypasses the treatment can feasibly be collected.
- (iv) Historic and recent quantity measurements and other hydrogeologic data such as the static water level and yield determination.
- (v) The physical description of the water supply, including the depth and diameter of the well, length of casing and description of the treatment and distribution systems.
- (vi) Sufficient sampling and other measurements to document the seasonal variation in hydrologic conditions of the water supply.

(2) The operator or mine owner shall submit the results of all qualitative analyses and quantity measurements gathered as part of a water supply survey to the Department and supply a copy to the water supply owner and water supply user prior to the issuance of a mining permit.

(3) A water supply survey shall be conducted prior to the time a water supply is susceptible to mining-related effects and shall be made part of the application for surface mining permit submitted to the Department. An update to the original survey may be required after permit issuance under the requirements of § 86.53 (relating to reporting of new information).

(4) If the operator or mine owner is prohibited from making a premining or postmining survey because the water supply owner will not allow access to the site, the operator or mine owner shall submit evidence to the Department of the following:

- (i) The operator or mine owner notified the water supply owner by certified mail or personal service of the water supply owner's rights and the effect on the water supply owner of the water supply owner's denial to the operator or mine owner of access to the site under section 4.2 of SMCRA (52 P.S. § 1396.4b).
- (ii) The operator or mine owner attempted to conduct a survey.

(iii) The water supply owner failed to authorize access to the operator or mine owner to conduct a survey within 10 days of receipt of the operator's or mine owner's notice of intent to survey.

(b) *Water supply replacement obligations.*

(1) The operator or mine owner of any mine who affects a water supply to any demonstrable extent

by contamination, pollution, diminution or interruption shall promptly restore or replace the affected water supply with a permanent alternate supply adequate in water quantity and water quality for the purposes served by, and the reasonably foreseeable uses of, the water supply. The operator or mine owner shall provide to the Department, in writing, the description of the location of a restored or replaced water supply and the name and address of the water supply owner under the requirements of § 86.53.

(2) For any water supply that will, with a reasonable degree of certainty established by supporting evidence, be affected by contamination, pollution, diminution or interruption by the proposed mining, the operator or mine owner shall provide a replacement supply prior to commencing the activity.

(c) *Temporary water supplies.* If the affected water supply owner or water supply user whose supply is in the area of presumption as defined in paragraph (j)(1) is without a readily available alternate source of water, the operator or mine owner shall provide a temporary water supply within 24 hours of being contacted by the water supply owner, water supply user, or the Department, whichever occurs first. The temporary water supply provided under this subsection shall meet the quality requirements of paragraph (f)(2) and provide sufficient quantity to meet the water supply owner or water supply user's premining needs. The requirement for a temporary water supply may be subject to a preliminary determination by the Department.

(d) *Immediate replacement of water supply by the Department.*

(1) If the Department finds that immediate replacement of an affected water supply used for potable or domestic purposes is required to protect public health or safety and the operator or mine owner has failed to comply with an order issued under section 4.2(f) of SMCRA, the Department may use moneys from the Surface Mining Conservation and Reclamation Fund to restore or replace the affected water supply.

(2) The Department will recover the costs of restoration or replacement, the costs of temporary water supply and costs incurred for design and construction of facilities from the responsible operator or mine owner. Costs recovered will be deposited in the Surface Mining Conservation and Reclamation Fund.

(e) *Reimbursement.* If a water supply is restored or replaced by the water supply owner or water supply user prior to establishing that mining activity is responsible for the pollution or diminution, the responsible operator or mine owner shall reimburse the water supply owner or water supply user the cost of replacing or restoring the supply including payment of operation and maintenance costs as described in subsection (g). If the operator or mine owner disputes the cost as presented by the water supply owner or water supply user, the operator or mine owner may present to the Department comparable estimates meeting the requirements of paragraph (b)(1) from three water supply installers in the area. The Department will determine fair cost of reimbursement based upon these estimates and

any other applicable information. Without affecting a water supply owner's or water supply user's other rights consistent with subsection (l), an affected water supply owner or water supply user may make a reimbursement claim to the Department against an operator or mine owner only until final release of the reclamation bond for the site.

(f) *Adequacy of permanently restored or replaced water supply.* A permanently restored or replaced water supply shall include any well, spring, municipal water supply system or other supply approved by the Department which meets the following criteria for adequacy:

(1) *Reliability, maintenance and control.* As documented in the premining water supply survey, a restored or replaced water supply, at a minimum, shall:

- (i) Be as reliable as the previous water supply.
- (ii) Be as permanent as the previous water supply.
- (iii) Not require excessive maintenance.
- (iv) Provide the water supply owner and the water supply user with as much control and accessibility as exercised over the previous water supply.
- (v) Not result in increased cost of operation and maintenance for the water supply owner or water supply user, unless the operator or mine owner has provided for payment of the increased cost as described under subsection (g).

(2) *Quality.* A restored or replaced water supply will be deemed adequate in quality if it meets the following:

(i) For a domestic supply, the Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1—721.17) standards, or a quality comparable to the premining water supply if that water supply did not meet these standards. The Department may require that the quality of the restored or replaced water supply be equivalent to the premining supply in particular circumstances where the water supply owner or water supply user has demonstrated that this standard is necessary for the purposes served by the current supply.

(ii) For other than a domestic supply, the premining quality established by the water supply survey data or an adequate quality of water needed for the purposes served by and the reasonably foreseeable uses of the supply.

(3) *Quantity.* For purposes of this paragraph the term "reasonably foreseeable uses" includes the reasonable expansion of use where the quantity of the water supply available prior to mining was adequate to supply the foreseeable uses. A restored or replaced water supply will be deemed adequate in quantity if it meets one of the following:

(i) It delivers the amount of water necessary to satisfy the purposes served by the supply as documented in the water supply survey including the demands of any reasonably foreseeable uses. The Department will not accept the use of water storage systems in conjunction with the replaced or restored supply in order to meet quantity requirements, unless the operator or mine owner can demonstrate the existence of no reasonable alternative.

(ii) It is established through a connection to a public water supply system that is capable of delivering the amount of water necessary to satisfy the water supply owner's or water supply user's needs and the demands of any reasonably foreseeable uses.

(4) *Water source serviceability.* Replacement of a water supply shall include the installation of all piping, pumping equipment, and treatment equipment necessary to put the replaced water source into service.

(g) *Increased operation and maintenance costs.* If the operation and maintenance costs of the restored or replaced water supply are more than those of the previous supply, the operator or mine owner shall provide for the permanent payment of the increased operation and maintenance costs of the restored or replaced water supply in accordance with the following procedure:

(1) *Determining costs.* The Department will determine the amount of the annual increase in operation and maintenance costs of the restored or replaced water supply based on current actual uses of the water supply.

(i) In consultation with the water supply owner or water supply user, the operator or mine owner shall use a minimum of 6 months of data, including high and low use periods, to ascertain the cost of operating and maintaining the replacement water supply. The data collection period should not exceed one year from the date the replacement water supply is functional unless the Department determines a reason to extend the period. During this collection period, the operator or mine owner pays the operation and maintenance costs.

(ii) Within 30 days after the end of the data collection period, the operator or mine owner shall submit to the Department, and to the water supply owner by certified mail, the operator's or mine owner's calculation of the annual increased operation and maintenance costs and a plan for payment of these costs. The water supply owner may respond to the proposed calculation of costs within 30 days from receipt of the certified mail.

(iii) The Department will review the operator's or mine owner's information, the water supply owner's information and any other information the Department deems relevant and will determine the amount of annual increase in operation and maintenance costs.

(iv) In determining the amount of annual increase in operation and maintenance costs, the Department will take into account contingencies and the precision of the cost estimates.

(2) *Provisions for payment.* Within 60 days of the Department's determination of the annual increased cost, the operator shall post a surety or collateral bond in an amount calculated in accordance with paragraph (g)(3). This bond is subject to the following provisions:

(i) The bond shall be submitted on a form prepared by the Department, separate from the designated reclamation bond.

(ii) The bond amount will be reviewed and adjusted as necessary and in accordance with § 86.152

(relating to bond adjustments) at an interval no less than every 5 years in conjunction with the permit renewal.

(iii) A replacement bond must be posted by any successor operator of the associated permit.

(iv) If a water supply operation and maintenance costs bond is forfeited, money received from the forfeiture of the bond can be used only for the water supply for which the Department forfeited the bond unless this supply has since been abandoned. The money will be paid by the Department to the current water supply owner as a settlement of the water supply owner's claim for increased operation and maintenance costs for the water supply for which the bond was forfeited. If a permittee has posted a bond for multiple water supplies the monies will be paid to the water supply owners on a prorated basis, based on the respective operation and maintenance costs.

(3) *Bond calculation.* Calculation of the amount of bond necessary to assure payment of operation and maintenance costs will be accomplished through the following procedure:

(i) The annual increased operation and maintenance costs are determined as in paragraph (g)(1).

(ii) This cost is then projected through 1 year beyond the term of the associated permit accounting for inflation through this time period. The following formula is used to calculate the projected costs.

$$OM_x = OM * (1 + E)^x$$

Where:

$OM_x$  is the projected cost for operation and maintenance,

$OM$  is the annual increased operation and maintenance costs,

$E$  is inflation rate based on the average Consumer Price Index as a decimal,

$x$  is years to renewal plus one.

(iii) The projected cost is then used to calculate bond value that is necessary to assure payment of operation and maintenance costs. This bond value can be established by using the projected cost determined in subparagraph (ii) in the following formula:

$$\text{Bond} = OM_x / \frac{(i - E)}{(1 + E)}$$

Where:

$Bond$  is the present value of the funds needed to cover increased operation and maintenance costs in perpetuity,

$i$  is the historic, long-term rate of return on investments based on Treasury Bills as a decimal,

$OM_x$  and  $E$  are defined as in subparagraph (ii).

(iv) The Department will annually recalculate values for the variables  $i$  and  $E$  used in the previous formulas and publish these values in the *Pennsylvania Bulletin*.

(4) *Release of obligation.* A voluntary agreement between the water supply owner and the operator or mine owner may be executed at any time. This agreement shall include a notarized statement signed by the water supply owner that documents the settlement of increased operation and maintenance costs to the satisfaction of all parties. This agreement shall be on forms provided by the Department and recorded with the deed to the property, with an original signed, recorded document submitted to the Department upon completion. Upon receipt of the fully executed and recorded release, the Department will consider the operator's or mine owner's obligation to pay increased operation and maintenance costs for the water supply to be satisfied and any bonds posted for this supply can be released.

(h) *Special Provisions for operation and maintenance costs.*

(1) Should ownership of the affected water supply change, the operator or mine owner must continue to pay the increased operation and maintenance costs unless a release outlined in paragraph (g)(4) is executed.

(2) An operator who incurs the obligation to pay for increased operation and maintenance costs for multiple water supplies may post one bond that covers the increased operation and maintenance costs for multiple water supplies. The procedures for calculating this bond amount shall be consistent with a single supply bond value as described in paragraph (g)(3) but the bond amount must be sufficient to provide for the payment for each water supply in the event that the operator defaults on the legal obligation of permanent payment.

(i) *Waivers.*

(1) The requirement to restore or replace an affected water supply may be waived by the Department if the Department determines that the affected water supply is to be abandoned whereby a replacement is no longer needed based on the approved post-mining land use.

(2) If a water supply is to be abandoned as in paragraph (i)(1), a notarized written statement signed by all persons who possess an ownership interest in the water supply shall be submitted to the Department establishing that the individuals knowingly and willingly agree to abandon the water supply. This document shall be recorded with the deed to the property at the office of the recorder of deeds.

(j) *Presumption of liability.*

(1) It shall be presumed, as a matter of law, that a surface mine operator or owner is responsible without proof of fault, negligence or causation for all pollution and diminution, except for bacteriological contamination, of public or private water supplies within 1,000 linear feet (304.80 meters) of the boundaries of any areas affected by surface mining activities whether or not permitted, including all reclaimed areas that underwent these activities. Areas utilized solely for haul and access roads shall not be included in the presumption area.

(2) Other than if the operator, mine owner, or the Department determines that the water supply is

not within the 1,000 foot area as described in paragraph (j)(1), the presumption is voided if the operator or mine owner can affirmatively prove by a preponderance of the evidence one or more of the following:

(i) The water supply owner refused to allow the operator or mine owner access to conduct a water supply survey prior to commencing surface mining activities.

(ii) The water supply owner or water supply user refused to allow the operator or mine owner access to determine the cause of pollution or diminution or to replace or restore the water supply.

(iii) The pollution or diminution existed prior to the surface mining activities as evidenced by a water supply survey conducted prior to commencing surface mining activities and as documented in the approved surface mine permit application submitted to the Department prior to permit issuance.

(iv) The pollution or diminution is not a result of the surface mining activities.

(3) If the operator or mine owner intends to demonstrate the presumption of liability is not applicable, they shall notify the Department and provide information in support of the demonstration. If asserting that access was denied, evidence must be provided showing that the water supply owner was notified by certified mail or personal service that the refusal of access to conduct a water supply survey or assessment may be used to rebut the presumption of liability. The Department will consider information provided under this paragraph in determining if mining activity caused the pollution or diminution and make a determination within 90 days of the operator's or mine owner's submissions.

(k) Operator cost recovery. An operator or mine owner who prevails in an appeal of a Department order to replace a water supply may pursue recovery of costs in accordance with 27 Pa.C.S. § 7708 (relating to costs for mining proceedings).

(l) Other remedies. Nothing in this section prevents a water supply owner or water supply user who claims pollution or diminution of a water supply from pursuing any other remedy that may be provided for in law or in equity. This section also does not prevent an operator or mine owner from pursuing any remedy in law or in equity should the operator incur costs for restoring or replacing a water supply that experienced pollution or diminution caused by third parties.

(m) Issuance of new permits. A Department order issued under this section which is appealed will not be used to block issuance of new permits.

(n) Department authority. Nothing in this section limits the Department's authority under section 4.2(f)(1) of SMCRA.

(o) Exception. A surface mining operation conducted under a surface mining permit issued by the Department before February 16, 1993, is not subject to subsections (a) and (c)—(m) but is subject to subsections (b) and (n).

CHAPTER 88. ANTHRACITE COAL  
Subchapter A. GENERAL PROVISIONS  
PRELIMINARY PROVISIONS

§ 88.1. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

\* \* \* \* \*

*Degree*—The inclination from the horizontal.

*[ De minimis cost increase—For purposes of § 88.107 (relating to hydrologic balance: water rights and replacement), a cost increase which meets one of the following criteria:*

*(i) Is less than 15% of the annual operation and maintenance costs of the previous water supply that is restored or replaced.*

*(ii) Is less than \$60 per year. ]*

*Disturbed area*—An area where vegetation, soil or overburden is removed or upon which soil, spoil, coal processing waste or noncoal waste is placed by surface coal mining activities. Those areas are classified as disturbed until reclamation is complete and the performance bond or other assurance of performance required by Chapter 86 Subchapter F (relating to bonding and insurance requirements) is released.

\* \* \* \* \*

*Open pit mining*—The type of surface mining operation involving one or more of the following:

(i) Basin removal operations where the open pit encompasses the entire cross section of a synclinal basin or a significant portion thereof unless the cross section of the synclinal basin is relatively narrow, less than 1,500 feet in width, in which case the operation will be classified as modified block-cut mining upon a demonstration by the operator that the requirements of § 88.115(c)(1) are met.

(ii) Area mining operations.

(iii) Overburden haul back operations.

(iv) Mining operations where multiple seams are being mined concurrently within a single mining phase or multiple mining phases, if the sequence of mining and reclamation operations are controlled by this phase mining plan developed by the coal operator and the timing of backfilling and grading operations is controlled by the backfilling schedule approved by the Department.

*Operation and maintenance costs*—All costs incurred by the water supply owner or water supply user associated with utilizing that supply for the purposes served. Examples of these costs include electricity, chemicals, treatment system maintenance, public water fees and equipment replacement costs.

*Outslope*—The face of the spoil or embankment sloping downward from the highest elevation to the toe.

\* \* \* \* \*

*Water supply*—For the purpose of §§ 88.27 and 88.107a (relating to alternative water supply information; and hydrologic balance: water rights and replacement) [ and § 88.107 ], an 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. Natural soil moisture utilized by vegetation or crops is not a water supply.

Water supply owner—Landowner or water supply company.

[ *Water supply survey—*

(i) The collection of reasonably available information for a water supply to establish:

(A) The location, type and use of the water supply.

(B) The chemical and physical characteristics of the water.

(C) The quantity of the water.

(D) The physical description of the water supply, including the depth and diameter of the well, length of casing and description of the treatment and distribution systems.

(E) Hydrogeologic data such as the static water level and yield determination.

(ii) Reasonably available information is information which can be collected without extraordinary effort or the expenditure of excessive sums of money. ]

*Water table*—The upper surface of a zone of saturation where the body or groundwater is not confined by an overlying impermeable zone.

#### ANTHRACITE COAL MINING ACTIVITIES: APPLICATION REQUIREMENTS AND PREMINING RESOURCES

##### § 88.27. Alternative water supply information.

The application shall identify the extent to which the proposed anthracite coal surface mining activities may result in contamination, diminution or interruption of [ an underground or surface source of water ] any water supply within the proposed permit or adjacent area [ for domestic, agricultural, industrial or other legitimate use ]. If contamination, pollution, diminution or interruption may result, then the description shall identify the means to restore or replace the affected water supply in accordance with Subchapters B, C or D (relating to surface anthracite coal mines: minimum environmental protection performance standards; anthracite bank removal and reclamation: minimum environmental protection performance standards; and anthracite refuse disposal: minimum environmental protection performance standards), including cost calculations. The Department will notify the owner of any potentially affected supply.

#### Subchapter B. SURFACE ANTHRACITE COAL MINES: MINIMUM ENVIRONMENTAL PROTECTION PERFORMANCE STANDARDS

##### § 88.107. [ Hydrologic balance: water rights and replacement ] Reserved.

[ (a) *Water supply replacement obligations.* The operator of any mine or a person engaged in government-financed reclamation who 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 water supply.

(1) To be adequate, the restored or replacement water supply, at a minimum, shall:

(i) Be as reliable as the previous water supply.

(ii) Be as permanent as the previous water supply.

(iii) Not require excessive maintenance.

(iv) Provide the owner and the user with as much control and accessibility as exercised over the previous water supply. The use of a public water supply as a replacement water supply provides the owner and the user adequate control and accessibility.

(v) Not result in more than a de minimis cost increase to operate and maintain.

(2) If the operating and maintenance costs of the restored or replacement water supply are more than a de minimis cost increase, the operator shall provide for the permanent payment of the increased operating and maintenance costs of the restored or replacement water supply.

(3) The requirement contained in this subsection to restore or replace an affected water supply or an individual requirement of paragraphs (1) and (2) may be waived. The waiver shall be in writing on a form prepared by the Department. Everyone who possesses an ownership interest in the water supply shall sign the waiver. The form shall be recorded at the office of the recorder of deeds in the county in which the water supply is situated and a notarized copy of the form shall be provided to the Department.

(b) *Presumption of liability for pollution.*

(1) It shall be presumed, as a matter of law, that a surface mine operator or mine owner is responsible without proof of fault, negligence or causation for all pollution, except bacteriological contamination, and diminution of public or private water supplies within 1,000 linear feet (304.80 meters) of the boundaries of the areas bonded and affected by coal mining operations, areas of overburden removal and storage and support areas except for haul and access roads.

(2) If surface mining activities are conducted on areas which are not permitted or bonded, it shall be presumed, as a matter of law, that the surface mine operator or mine owner is responsible without proof of fault, negligence or causation for all pollution, except bacteriological contamination, and diminution of public or private water supplies within 1,000 linear feet (304.80 meters) of the land affected by the surface mining activities.

(c) *Defenses to presumption of liability.* There are only five defenses to the presumption of liability provided in subsection (b). For any of the five defenses to apply, the mine operator or mine owner shall affirmatively prove by a preponderance of evidence that one or more of the following conditions exists:

(1) The landowner or water supply company refused to allow the surface mine operator or mine owner access to conduct a water supply survey prior to commencing surface mining activities.

(2) The water supply is not within 1,000 linear feet (304.80 meters) of:

(i) The boundaries of areas bonded and affected by coal mining operations, areas of overburden removal and storage and areas used for support but not including haul and access roads.

(ii) The boundaries of areas affected by surface mining activities in areas which are not bonded.

(3) The pollution or diminution existed prior to the surface mining activities as evidenced by a water supply survey conducted prior to commencing surface mining activities and as documented in the approved surface mine permit application submitted to the Department prior to permit issuance.

(4) The pollution or diminution occurred as a result of some cause other than the surface mining activities.

(5) The landowner, water supply user or water supply company refused to allow the surface mine operator or mine owner access to determine the cause of pollution or diminution or to replace or restore the water supply.

(d) *Notification to Department.* The surface mine operator or mine owner shall notify the Department and provide all information which supports a defense to the presumption of liability when one or more of the five defenses to the presumption of liability provided in subsection (c) are met. If a surface mine operator's or mine owner's defense to the presumption of liability is based on the conditions of subsection (c)(1), the operator or owner shall submit evidence to the Department demonstrating that the landowner or water supply company was notified by certified mail or personal service that the refusal of access to conduct a water supply survey could be used to rebut a presumption of liability.

(e) *Immediate replacement of water supply.* If the Department finds that immediate replacement of an affected water supply used for potable or domestic purposes is required to protect public health or safety and the surface mine operator or mine owner has failed to comply with an order issued under section 4.2(f) of SMCRA (52 P.S. § 1396.5b(f)), the Department may use moneys from the Surface Mining Conservation and Reclamation Fund to restore or replace the affected water supply.

(f) *Department cost of recovery.* The Department will recover the costs of restoration or replacement, the costs of temporary water supply and costs incurred for design and construction of facilities from the responsible surface mine operator or mine owner. Costs recovered will be deposited in the Surface Mining Conservation and Reclamation Fund.

(g) *Operator cost recovery.* A surface mine operator or mine owner who appeals a Department order, provides a successful defense during the appeal to the presumptions of liability and is not otherwise held responsible for the pollution or diminution is entitled to recovery of reasonable costs incurred, including, but not limited to, the costs of temporary water supply, design, construction, and restoration or replacement costs, attorney fees and expert witness fees from the Department.

(h) *Other remedies.* Nothing in this section prevents a landowner, water supply user or water supply company who claims pollution or diminu-

tion of a water supply from pursuing any other remedy that may be provided for in law or in equity.

(i) *Issuance of new permits.* A Department order issued under this section which is appealed will not be used to block issuance of new permits or the release of bonds when a stage of reclamation work is completed.

(j) *Department authority.* Nothing in this section limits the Departments authority under section 4.2(f)(1) of SMCRA.

(k) *Exception.* A surface mining operation conducted under a surface mining permit issued by the Department before February 16, 1993, is not subject to subsections (b)—(i), but is subject to subsections (a) and (j). ]

#### § 88.107a. Hydrologic balance: water rights and replacement.

(a) Water supply surveys. The operator or mine owner shall conduct a survey of the quantity and quality of all water supplies within the permit area and those in adjacent areas that may be affected by mining activities, except when the water supply owner denies the operator or mine owner access for the survey.

(1) The survey must include the following information to the extent that it can be collected without excessive inconvenience to the water supply owner or water supply user:

(i) The location and type of water supply.

(ii) The existing and reasonably foreseeable uses of the water supply.

(iii) The chemical and physical characteristics of the water, including, at a minimum, total dissolved solids or specific conductance corrected to 25°C, pH, total iron, total manganese, acidity, alkalinity and sulfates. Additional parameters, including hardness and total coliform, may be required by the Department based on the local aquifer conditions and the characteristics of the water supply and uses. An operator or mine owner who obtains water samples in a premining or postmining survey shall utilize a certified laboratory to analyze the samples. For water supplies with existing treatment, the treatment system must be documented and a chemical analyses of the untreated water shall be obtained if a sample that bypasses the treatment can feasibly be collected.

(iv) Historic and recent quantity measurements and other hydrogeologic data such as the static water level and yield determination.

(v) The physical description of the water supply, including the depth and diameter of the well, length of casing, and description of the treatment and distribution systems.

(vi) Sufficient sampling and other measurements to document the seasonal variation in hydrologic conditions of the water supply.

(2) The operator or mine owner shall submit the results of all qualitative analyses and quantity measurements gathered as part of a water supply survey to the Department and supply a copy to the water supply owner and water supply user prior to the issuance of a mining permit.



(3) A water supply survey shall be conducted prior to the time a water supply is susceptible to mining-related effects and shall be made part of the application for surface mining permit submitted to the Department. An update to the original survey may be required after permit issuance under the requirements of § 86.53 (relating to reporting of new information).

(4) If the operator or mine owner is prohibited from making a premining or postmining survey because the water supply owner will not allow access to the site, the operator or mine owner shall submit evidence to the Department of the following:

(i) The operator or mine owner notified the water supply owner by certified mail or personal service of the water supply owner's rights and the effect on the water supply owner of the water supply owner's denial to the operator or mine owner of access to the site under section 4.2 of SMCRA (52 P.S. § 1396.4b).

(ii) The operator or mine owner attempted to conduct a survey.

(iii) The water supply owner failed to authorize access to the operator or mine owner to conduct a survey within 10 days of receipt of the operator's or mine owner's notice of intent to survey.

(b) *Water supply replacement obligations.*

(1) The operator or mine owner of any mine who affects a water supply to any demonstrable extent by contamination, pollution, diminution or interruption shall promptly restore or replace the affected water supply with a permanent alternate supply adequate in water quantity and water quality for the purposes served by, and the reasonably foreseeable uses of, the water supply. The operator or mine owner shall provide to the Department, in writing, the description of the location of a restored or replaced water supply and the name and address of the water supply owner under the requirements of § 86.53.

(2) For any water supply that will, with a reasonable degree of certainty established by supporting evidence, be affected by contamination, pollution, diminution or interruption by the proposed mining, the operator or mine owner shall provide a replacement supply prior to commencing the activity.

(c) *Temporary water supplies.* If the affected water supply owner or water supply user whose supply is in the area of presumption as defined in paragraph (j)(1) is without a readily available alternate source of water, the operator or mine owner shall provide a temporary water supply within 24 hours of being contacted by the water supply owner, water supply user, or the Department, whichever occurs first. The temporary water supply provided under this subsection shall meet the quality requirements of paragraph (f)(2) and provide sufficient quantity to meet the water supply owner or water supply user's premining needs. The requirement for a temporary water supply may be subject to a preliminary determination by the Department.

(d) *Immediate replacement of water supply by the Department.*

(1) If the Department finds that immediate replacement of an affected water supply used for potable or domestic purposes is required to protect public health or safety and the operator or mine owner has failed to comply with an order issued under section 4.2(f) of SMCRA, the Department may use moneys from the Surface Mining Conservation and Reclamation Fund to restore or replace the affected water supply.

(2) The Department will recover the costs of restoration or replacement, the costs of temporary water supply and costs incurred for design and construction of facilities from the responsible operator or mine owner. Costs recovered will be deposited in the Surface Mining Conservation and Reclamation Fund.

(e) *Reimbursement.* If a water supply is restored or replaced by the water supply owner or water supply user prior to establishing that mining activity is responsible for the pollution or diminution, the responsible operator or mine owner shall reimburse the water supply owner or water supply user the cost of replacing or restoring the supply including payment of operation and maintenance costs as described in subsection (g). If the operator or mine owner disputes the cost as presented by the water supply owner or water supply user, the operator or mine owner may present to the Department comparable estimates meeting the requirements of paragraph (b)(1) from three water supply installers in the area. The Department will determine fair cost of reimbursement based upon these estimates and any other applicable information. Without affecting a water supply owner's or water supply user's other rights consistent with subsection (l), an affected water supply owner or water supply user may make a reimbursement claim to the Department against an operator or mine owner only until final release of the reclamation bond for the site.

(f) *Adequacy of permanently restored or replaced water supply.* A permanently restored or replaced water supply shall include any well, spring, municipal water supply system or other supply approved by the Department which meets the following criteria for adequacy:

(1) *Reliability, maintenance and control.* As documented in the premining water supply survey, a restored or replaced water supply, at a minimum, shall:

(i) Be as reliable as the previous water supply.

(ii) Be as permanent as the previous water supply.

(iii) Not require excessive maintenance.

(iv) Provide the water supply owner and the water supply user with as much control and accessibility as exercised over the previous water supply.

(v) Not result in increased cost of operation and maintenance for the water supply owner or water supply user, unless the operator or mine owner has provided for payment of the increased cost as described under subsection (g).

(2) *Quality.* A restored or replaced water supply will be deemed adequate in quality if it meets the following:

(i) For a domestic supply, the Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1—721.17) standards, or a quality comparable to the premining water supply if that water supply did not meet these standards. The Department may require that the quality of the restored or replaced water supply be equivalent to the premining supply in particular circumstances where the water supply owner or water supply user has demonstrated that this standard is necessary for the purposes served by the current supply.

(ii) For other than a domestic supply, the premining quality established by the water supply survey data or an adequate quality of water needed for the purposes served by and the reasonably foreseeable uses of the supply.

(3) *Quantity.* For purposes of this paragraph the term “reasonably foreseeable uses” includes the reasonable expansion of use where the quantity of the water supply available prior to mining was adequate to supply the foreseeable uses. A restored or replaced water supply will be deemed adequate in quantity if it meets one of the following:

(i) It delivers the amount of water necessary to satisfy the purposes served by the supply as documented in the water supply survey including the demands of any reasonably foreseeable uses. The Department will not accept the use of water storage systems in conjunction with the replaced or restored supply in order to meet quantity requirements, unless the operator or mine owner can demonstrate the existence of no reasonable alternative.

(ii) It is established through a connection to a public water supply system that is capable of delivering the amount of water necessary to satisfy the water supply owner’s or water supply user’s needs and the demands of any reasonably foreseeable uses.

(4) *Water source serviceability.* Replacement of a water supply shall include the installation of all piping, pumping equipment and treatment equipment necessary to put the replaced water source into service.

(g) *Increased operation and maintenance costs.* If the operation and maintenance costs of the restored or replaced water supply are more than those of the previous supply, the operator or mine owner shall provide for the permanent payment of the increased operation and maintenance costs of the restored or replaced water supply in accordance with the following procedure:

(1) *Determining costs.* The Department will determine the amount of the annual increase in operation and maintenance costs of the restored or replaced water supply based on current actual uses of the water supply.

(i) In consultation with the water supply owner or water supply user, the operator shall use a minimum of 6 months of data, including high and low use periods, to ascertain the cost of operating and maintaining the replacement water supply. The data collection period should not exceed 1 year from the date the replacement water supply is functional unless the Department determines a reason to extend the period. During this collection

period, the operator or mine owner pays the operation and maintenance costs.

(ii) Within 30 days after the end of the data collection period, the operator or mine owner shall submit to the Department, and to the water supply owner by certified mail, the operator’s or mine owner’s calculation of the annual increased operation and maintenance costs and a plan for payment of these costs. The water supply owner may respond to the proposed calculation of costs within 30 days from receipt of the certified mail.

(iii) The Department will review the operator’s or mine owner’s information, the water supply owner’s information and any other information the Department deems relevant and will determine the amount of annual increase in operation and maintenance costs.

(iv) In determining the amount of annual increase in operation and maintenance costs, the Department will take into account contingencies and the precision of the cost estimates.

(2) *Provisions for payment.* Within 60 days of the Department’s determination of the annual increased cost, the operator shall post a surety or collateral bond in an amount calculated in accordance with paragraph (g)(3). This bond is subject to the following provisions:

(i) The bond shall be submitted on a form prepared by the Department, separate from the designated reclamation bond.

(ii) The bond amount will be reviewed and adjusted as necessary and in accordance with § 86.152 (relating to bond adjustments) at an interval no less than every 5 years in conjunction with the permit renewal.

(iii) A replacement bond must be posted by any successor operator of the associated permit.

(iv) If a water supply operation and maintenance costs bond is forfeited, money received from the forfeiture of the bond can be used only for the water supply for which the Department forfeited the bond unless this supply has since been abandoned. The money will be paid by the Department to the current water supply owner as a settlement of the water supply owner’s claim for increased operation and maintenance costs for the water supply for which the bond was forfeited. If a permittee has posted a bond for multiple water supplies the moneys will be paid to the water supply owners on a prorated basis, based on the respective operation and maintenance costs.

(3) *Bond calculation.* Calculation of the amount of bond necessary to assure payment of operation and maintenance costs will be accomplished through the following procedure:

(i) The annual increased operation and maintenance costs are determined as in paragraph (g)(1).

(ii) This cost is then projected through 1 year beyond the term of the associated permit accounting for inflation through this time period. The following formula is used to calculate the projected costs.

$$OM_x = OM * (1 + E)^x$$

Where:

$OM_x$  is the projected cost for operation and maintenance,

$OM$  is the annual increased operation and maintenance costs,

$E$  is inflation rate based on the average Consumer Price Index as a decimal,

$x$  is years to renewal plus one.

(iii) The projected cost is then used to calculate bond value that is necessary to assure payment of operation and maintenance costs. This bond value can be established by using the projected cost determined in subparagraph (ii) in the following formula:

$$\text{Bond} = OM_x / \frac{(i - E)}{(1 + E)}$$

Where:

$Bond$  is the present value of the funds needed to cover increased operation and maintenance costs in perpetuity,

$i$  is the historic, long-term rate of return on investments based on Treasury Bills as a decimal,

$OM_x$  and  $E$  are defined as in subparagraph (ii).

(iv) The Department will annually recalculate values for the variables  $i$  and  $E$  used in the previous formulas and publish these values in the *Pennsylvania Bulletin*.

(4) *Release of obligation.* A voluntary agreement between the water supply owner and the operator or mine owner may be executed at any time. This agreement shall include a notarized statement signed by the water supply owner that documents the settlement of increased operation and maintenance costs to the satisfaction of all parties. This agreement shall be on forms provided by the Department and recorded with the deed to the property, with an original signed, recorded document submitted to the Department upon completion. Upon receipt of the fully executed and recorded release, the Department will consider the operator's or mine owner's obligation to pay increased operation and maintenance costs for the water supply to be satisfied and any bonds posted for this supply can be released.

(h) *Special Provisions for operation and maintenance costs.*

(1) Should ownership of the affected water supply change, the operator or mine owner must continue to pay the increased operation and maintenance costs unless a release outlined in paragraph (g)(4) is executed.

(2) An operator who incurs the obligation to pay for increased operation and maintenance costs for multiple water supplies may post one bond that covers the increased operation and maintenance costs for multiple water supplies. The procedures for calculating this bond amount shall be consistent with a single supply bond value as described in paragraph (g)(3) but the bond amount must be

sufficient to provide for the payment for each water supply in the event that the operator defaults on the legal obligation of permanent payment.

(i) *Waivers.*

(1) The requirement to restore or replace an affected water supply may be waived by the Department if the Department determines that the affected water supply is to be abandoned whereby a replacement is no longer needed based on the approved post-mining land use.

(2) If a water supply is to be abandoned as in paragraph (i)(1), a notarized written statement signed by all persons who possess an ownership interest in the water supply shall be submitted to the Department establishing that the individuals knowingly and willingly agree to abandon the water supply. This document shall be recorded with the deed to the property at the office of the recorder of deeds.

(j) *Presumption of liability.*

(1) It shall be presumed, as a matter of law, that a surface mine operator or owner is responsible without proof of fault, negligence or causation for all pollution and diminution, except for bacteriological contamination, of public or private water supplies within 1,000 linear feet (304.80 meters) of the boundaries of any areas affected by surface mining activities whether or not permitted, including all reclaimed areas that underwent these activities. Areas utilized solely for haul and access roads shall not be included in the presumption area.

(2) Other than if the operator, mine owner or the Department determines that the water supply is not within the 1,000 foot area as described in paragraph (j)(1), the presumption is voided if the operator or mine owner can affirmatively prove by a preponderance of the evidence one or more of the following:

(i) The water supply owner refused to allow the operator or mine owner access to conduct a water supply survey prior to commencing surface mining activities.

(ii) The water supply owner or water supply user refused to allow the operator or mine owner access to determine the cause of pollution or diminution or to replace or restore the water supply.

(iii) The pollution or diminution existed prior to the surface mining activities as evidenced by a water supply survey conducted prior to commencing surface mining activities and as documented in the approved surface mine permit application submitted to the Department prior to permit issuance.

(iv) The pollution or diminution is not the result of the surface mining activities.

(3) If the operator or mine owner intends to demonstrate the presumption of liability is not applicable, they shall notify the Department and provide information in support of the demonstration. If asserting that access was denied, evidence must be provided showing that the water supply owner was notified by certified mail or personal service that the refusal of access to conduct a water supply survey or assessment may be used to rebut the presumption of liability. The Department will

consider information provided under this paragraph in determining if mining activity caused the pollution or diminution and make a determination within 90 days of the operator's or mine owner's submissions.

(k) Operator cost recovery. An operator or mine owner who prevails in an appeal of a Department order to replace a water supply may pursue recovery of costs in accordance with 27 Pa.C.S. § 7708 (relating to costs for mining proceedings).

(l) Other remedies. Nothing in this section prevents a water supply owner or water supply user who claims pollution or diminution of a water supply from pursuing any other remedy that may be provided for in law or in equity. This section does not prevent an operator or mine owner from pursuing any remedy in law or in equity should the operator incur costs for restoring or replacing a water supply that experienced pollution or diminution caused by third parties.

(m) Issuance of new permits. A Department order issued under this section which is appealed will not be used to block issuance of new permits.

(n) Department authority. Nothing in this section limits the Department's authority under section 4.2(f)(1) of SMCRA.

(o) Exception. A surface mining operation conducted under a surface mining permit issued by the Department before February 16, 1993, is not subject to subsections (a) and (c)—(m) but is subject to subsections (b) and (n).

**Subchapter E. COAL PREPARATION ACTIVITIES**  
**§ 88.381. General requirements.**

(a) A person who conducts or intends to conduct coal preparation activities, not within the permit area of a specific mine, shall obtain a permit from the Department under §§ 86.11—86.18 (relating to general requirements for permits and permit applications). The person shall

meet certain performance standards and application requirements as specified in this subchapter.

(b) The following performance standards shall be met:  
\* \* \* \* \*

(13) Water rights shall be protected in accordance with § [ 88.107 ] **88.107a** (relating to hydrologic balance: water rights and replacement).  
\* \* \* \* \*

**CHAPTER 89. UNDERGROUND MINING OF COAL AND COAL PREPARATION FACILITIES**

**Subchapter H. COAL PREPARATION ACTIVITIES**

**§ 89.173. Performance standards.**

Construction, operation, maintenance, modification, removal and reclamation of coal preparation activities shall comply with the following:

(1) Signs and markers shall comply with § 89.51 (relating to signs and markers).

(2) Erosion and sedimentation shall be controlled under §§ 89.21—89.26 (relating to performance standards).

(3) The hydrologic balance shall be protected under §§ 87.102(b), 87.106, 87.107, [ **87.119** ] **87.119a**, 89.52, 89.53, 89.55 and 89.57—89.60.  
\* \* \* \* \*

**CHAPTER 90. COAL REFUSE DISPOSAL**

**Subchapter D. PERFORMANCE STANDARDS FOR COAL REFUSE DISPOSAL**

**§ 90.116a. Hydrologic balance: water rights and replacement.**

An operator who conducts coal refuse disposal and adversely affects a water supply by contamination, pollution, diminution or interruption shall comply with § [ **87.119** ] **87.119a** (relating to hydrologic balance: water rights and replacement).

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