

**§ 88.1. Definitions.**

*Operation and maintenance costs* – all costs incurred by the water supply owner/user associated with utilizing that supply for the purposes served. Examples of these costs include electricity, chemicals, treatment system maintenance, labor, public water bills and equipment replacement costs.

*Water supply*—For the purpose of § 88.27 (relating to alternative water supply information) 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.

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**§ 88.27. Alternative water supply information.**

(a) 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 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 Subchapter 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).

(b) The applicant shall provide notice to the water supply owner/user for those water supplies for which the proposed surface mining activities may result in contamination, diminution or interruption of within the proposed permit or adjacent area for domestic, agricultural, industrial or other legitimate use. The notice shall include the details of the proposed replacement or restoration of the water supply.

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

**Sec.**

**§ 88.107. Hydrologic balance: water rights and replacement.**

(a) *Water supply surveys.* The operator 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 owner denies the operator access for the survey.

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

(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, hardness, total coliform, acidity, alkalinity and sulfates. Other parameters may be required by the Department on a site-specific basis. An operator who obtains water samples in a premining or postmining survey shall utilize a certified laboratory to analyze the samples. For water supplies with treatment, chemical analyses must be reported for the untreated water and the treated water.

(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 shall submit copies of the results of all qualitative analyses, and quantity measurements gathered as part of a water supply survey, to the Department and to the owner within 30 days of their receipt by the operator or as part of a permit application package.

(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 pursuant to the requirements of § 86.53 (relating to reporting of new information).

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

(i) The operator notified the owner by certified mail or personal service of the owner's rights and the effect on the owner of the owner's denial to the operator of access to the site under Section 4.2 of the Surface Mining Conservation and Reclamation Act (52 P. S. § 1396.4b.)

(ii) The operator made an attempt to conduct a survey.

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

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(b) *Water supply replacement obligations.*

(1) The operator 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, and the reasonably foreseeable uses of, the water supply. The operator 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 owner of such water supply pursuant to the requirements of § 86.53.

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

(c) *Temporary water supplies.* If the affected owner or water user is without a readily available alternate source of water, the operator shall provide a temporary water supply within 24 hours of being contacted by the owner, water supply user, or the Department, whichever occurs first. The temporary water supply provided under this subsection shall meet the quality requirements of section (f)(2) and provide sufficient quantity to meet the water supply user's premining needs. The provisions in this paragraph are subject to a preliminary determination of liability due to presumption under subsection (j) or causation by the Department.

(d) *Immediate replacement of water supply.*

(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 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.

(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 surface mine 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 owner or user prior to establishing that mining activity is responsible for the pollution or diminution, the responsible operator shall reimburse the water supply owner or user the cost of replacing or restoring the supply including payment of operation and maintenance costs as described in paragraph (g). If the operator disputes the cost as presented by the water supply owner or user, the operator may present to the Department three (3) comparable estimates from well drillers in the area. The Department will determine fair cost of reimbursement based upon these estimates and any other applicable information. Reimbursement claims against an operator can only be registered until final release of the reclamation bond for the site.

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(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.* 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 owner and the 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 user, unless the operator 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. §§ 750.1—750.20) 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 more stringent than the standards of the Pennsylvania Safe Drinking Water Act if the water user has demonstrated that higher quality was present in the premining supply and that the higher quality 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.* 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 including the demands of any reasonably foreseeable uses.
  - (A) For purposes of this paragraph and with respect to agricultural water supplies, 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.

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(B) 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 mine operator 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 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 replacement into service.

(g) *Increased operation and maintenance costs.* If the operation and maintenance costs of the restored or replacement water supply are more than those of the previous supply, the operator 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, 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 one year from the date the replacement water supply is functional. During this collection period, the operator pays the operation and maintenance costs.

(ii) Within 30 days after the end of the data collection period, the operator shall submit to the Department, and to the water supply owner by certified mail, the operator's calculation of the annual increased operation and maintenance costs and a plan for payment of these costs. The water supply owner will be given a reasonable opportunity to respond to the operator's proposed calculation of costs, not to exceed 30 days.

(iii) The Department will review the operator'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 section (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(s).

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(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 five (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, the moneys 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. These monies 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 section (1).

(ii) This cost is then projected through one 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 subsection (ii) in the following formula:

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

Where:

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*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 subsection (ii).

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

(4) *Release of obligation.* A voluntary agreement between the water supply owner(s) and/or user(s) and the permittee may be executed at any time. This agreement shall include a notarized statement signed by the water supply owner(s) and/or user(s) 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 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 must continue to pay the increased operation and maintenance costs unless a release outlined in subsection (g)(4) is executed.

(2) A permittee 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 subsection (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 (1), a notarized written statement accepted and 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*

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(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 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 road shall not be included in the presumption area.

(2) Other than if the operator or Department determines that the water supply is not within the 1000 ft. area as described in paragraph (1), the presumption is nullified if the mine operator or mine owner can affirmatively prove by a preponderance of evidence one or more of the following:

(a) The landowner, water supply user, 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.

(b) 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.

(c) 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.

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

(3) If the surface mine operator or mine owner intends to demonstrate the presumption of liability is nullified, 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 landowner or water supply company 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 nullify the presumption of liability. The Department will consider information provided in accordance with this subsection in determining if mining activity caused the pollution or diminution.

(k) *Operator cost recovery.* A surface mine operator or mine owner who appeals a Department order to replace a water supply, provides a successful defense 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.



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(l) *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.

(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), (c)—(m) but is subject to subsections (b) and (n).

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