

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.

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*[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.]

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*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.*

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*Water supply—*For the purpose of § 87.47 (relating to alternative water supply information) and [~~§ 87.119~~] ~~§ 87.119a (relating to hydrologic balance: water rights and replacement)~~, 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.]

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

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**§ 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 § 87.119a (relating to hydrologic balance: water rights and replacement), **including cost calculations. The Department will notify the owner of any potentially affected supply.**

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

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

(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)(l) 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 pursuant to 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 the Surface Mining Conservation and Reclamation Act (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(s) pursuant to 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 (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 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. §§ 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 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 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. 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(s).

(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, 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 (1) above.

(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.

$$\underline{OM_x = OM * (1 + E)^x}$$

Where:

OM<sub>x</sub> 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:

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

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<sub>x</sub> and E are defined as in subparagraph (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 the operator or mine owner may be executed at any time. This agreement shall include a notarized statement signed by the water supply owner(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 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 (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 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, mine owner, or the Department determines that the water supply is not within the 1000 ft. area as described in paragraph (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)(l) 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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## CHAPTER 88. ANTHRACITE COAL

### Subchapter A. GENERAL PROVISIONS

#### § 88.1. Definitions.

***[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.]**

\* \* \* \* \*

**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.**

\* \* \* \* \*

***Water supply—*For the purpose of § 88.27 (relating to alternative water supply information) and [§ 88.107] **§ 88. 107a (relating to hydrologic balance: water rights and replacement)**, 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.]

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**§ 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.**

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

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

(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 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)(l) 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 pursuant to 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 the Surface Mining Conservation and Reclamation Act (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(s) pursuant to 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 (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 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. §§ 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 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 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. 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 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(s).

(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, 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 (1) above.

(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.

$$\underline{OM_x = OM * (1 + E)^x}$$

Where:

OM<sub>x</sub> 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:

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

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<sub>x</sub> and E are defined as in subparagraph (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 the operator or mine owner may be executed at any time. This agreement shall include a notarized statement signed by the water supply owner(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 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 (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 an 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, mine owner, or the Department determines that the water supply is not within the 1000 ft. area as described in paragraph (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)(l) 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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### **Subchapter E. COAL PREPARATION ACTIVITIES**

#### **§ 88.381. General requirements.**

\* \* \* \* \*

(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:

\* \* \* \* \*

(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.

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## CHAPTER 90. COAL REFUSE DISPOSAL

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### 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).