STATEMENT OF
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BEFORE THE

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
SUBCOMMITTE ON THE INTERIOR AND THE
SUBCOMMITTEE ON HEALTHCARE, BENEFITS, & ADMINISTRATIVE RULES
U.S. HOUSE OF REPRESENTATIVES

ON THE
PROPOSED STREAM PROTECTION RULE

DECEMBER 8, 2015

Chairman Lummis, Chairman Jordan, and members of the subcommittees, thank you for the opportunity to testify during this joint subcommittee hearing today on the proposed Stream Protection Rule (SPR) as well as the rule's supporting Draft Environmental Impact Statement and Draft Regulatory Impact Analysis.

Coal mining operations continue to have adverse impacts on streams, fish, and wildlife despite the enactment of SMCRA and the adoption of Federal regulations implementing that law more than 30 years ago. Those impacts include loss of headwater streams, long-term degradation of water quality in streams downstream of a mine, displacement of pollution-sensitive species of fish and insects by pollution-tolerant species, fragmentation of large blocks of mature hardwood forests, replacement of native species by highly competitive non-native species that inhibit reestablishment of native plant communities, and compaction and improper construction of postmining soils that result in a reduction of site productivity and adverse impacts on watershed hydrology.

The stream protection rule would address these impacts by preserving the quality and quantity of both surface water and groundwater for future generations when the coal is gone. It would update the existing regulations to reflect increase in scientific knowledge and advances in mining and reclamation techniques in the 30 years since the regulations were last revised in a comprehensive fashion. New scientific knowledge includes the impacts of conductivity and selenium on aquatic life. Advances in reclamation techniques include the Forestry Reclamation Approach, which promotes postmining reconstruction of soils in a manner that greatly increases the site's ability to support trees and its productivity for forestry purposes. The proposed rule would provide regulatory certainty as to what constitutes material damage to the hydrologic balance outside the

permit area. The existing rules do not define this term, which is analogous to posting "Do Not Speed" signs on highways without listing a speed limit.

By lessening the impacts of mining, the proposed rule would better achieve the purposes of SMCRA as set forth in section 102 of the Act. In particular, the proposed rule would better protect society and the environment from the adverse effects of surface coal mining operations, assure that surface coal mining operations are conducted in an environmentally protective manner, and help assure that mining will not occur where reclamation is not feasible. The proposed rule strikes the appropriate balance between environmental protection, agricultural productivity and the Nation's need for coal as an essential source of energy, while providing greater regulatory certainty to the mining industry.

The U.S. House of Representatives first passed a bill (H.R. 6482) to regulate surface coal mining operations in 1972. Section 9(a) of that bill included a flat prohibition on mining within 100 feet of any ''body of water, stream, pond, or lake to which the public enjoys use and access, or other private property." That bill never became law and the provision did not appear in either the House or Senate versions of the bills that ultimately became SMCRA. However, sections 515(b)(24) and 516(b)(11) of SMCRA require that mining operations minimize disturbances and adverse impacts on fish, wildlife, and related environmental values to the extent possible using the best technology currently available. We have consistently interpreted those and other provisions of SMCRA as meaning that protection of perennial and intermittent streams, with their intrinsic value to fish and wildlife, is an important element of the environmental protection regime that SMCRA established. Since the enactment of SMCRA, we have adopted four sets of regulations, which we discuss below, that included the concept of a buffer zone for streams.

In 1977, we published initial regulatory program regulations providing that no land within 100 feet of an intermittent or perennial stream could be disturbed by surface coal mining and reclamation operations unless the regulatory authority specifically authorizes those operations. See 30 CFR 715.17(d)(3) and 717.17(d), as published at 42 FR 62639, 62686, 62697 (Dec. 13, 1977). We stated that we adopted that rule as a means ''to protect stream channels from abnormal erosion" from nearby upslope mining activities. However, that rule, which applies only to the now-limited subset of surface coal mining and reclamation operations subject to the initial regulatory program, does not specify the conditions under which the regulatory authority may authorize surface coal mining operations within the buffer zone.

In 1979, we published the original version of our permanent regulatory program regulations. As codified at 30 CFR 816.57 and 817.57, those regulations provided that, with the exception of stream diversions, the surface of land within 100 feet of a perennial stream or a non-perennial stream with a biological community could not be disturbed by surface mining activities or surface operations and facilities associated with an underground mine unless the regulatory authority specifically authorized mining-related activities closer to or through the stream. The regulatory authority could grant that authorization only after making a finding that the original stream channel would be

restored and that, during and after mining, the water quantity and quality in the section of the stream within 100 feet of the mining activities would not be adversely affected. Paragraph (c) of these rules provided that a biological community existed if, at any time, the stream contained an assemblage of two or more species of arthropods or molluscan animals that were adapted to flowing water for all or part of their life cycle, dependent upon a flowing water habitat, reproducing or could reasonably be expected to reproduce in the water body where they are found, and longer than two millimeters at some stage of the part of their life cycle spent in the flowing water habitat. See 44 FR 14902, 15175 (Mar. 13, 1979). The preamble to the 1979 rules explains that the purpose of the revised rules was to implement paragraphs (b)(10) and (b)(24) of section 515 of the Act. It states that "[b]uffer zones are required to protect streams from the adverse effects of sedimentation and from gross disturbance of stream channels," but that "if operations can be conducted within 100 feet of a stream in an environmentally acceptable manner, they may be approved." In addition, it states that "[t]he 100-foot limit is based on typical distances that should be maintained to protect stream channels from sedimentation," but that, while the 100-foot standard provides a simple rule for enforcement purposes, "site-specific variation should be made available when the regulatory authority has an objective basis for either increasing or decreasing the width of the buffer zone."

In 1983, we revised 30 CFR 816.57 and 817.57 by deleting the requirement to restore the original stream channel. For ease of administration and to ensure that the rule would not apply to ephemeral streams, we also replaced the biological community criterion for determining which non-perennial streams are protected under the rule with a requirement for protection of all perennial and intermittent streams. We redefined an intermittent stream as a stream or reach of a stream that (a) drains a watershed of at least one square mile or (b) is below the local water table for at least some part of the year and obtains its flow from both surface runoff and groundwater discharge. Finally, we replaced the 1979 finding with a requirement that the regulatory authority find that the proposed mining activities would not cause or contribute to a violation of applicable state or Federal water quality standards and would not adversely affect the quantity or quality of the water in the stream or the other environmental resources of the stream. See 48 FR 30312, 30327–30328 (Jun. 30, 1983). In 1983, we also adopted revised performance standards for coal preparation plants not located within the permit area of a mine. At that time, we decided not to apply the stream buffer zone rule to those preparation plants. See 30 CFR 827.12 and the preamble to those rules at 48 FR 20399 (May 5, 1983). The preamble to the 1983 stream buffer zone rules reiterates the general rationale for adoption of a stream buffer zone rule that we specified in the preamble to the 1979 rules.

On December 12, 2008, we adopted a final rule that revised the circumstances under which mining activities may be conducted in or near perennial or intermittent streams and that established new requirements for the creation and disposal of excess spoil and coal mine waste. Among other things, the 2008 rule required that mining operations be designed to minimize the creation of excess spoil and that permit applicants consider a range of reasonable alternatives to the disposal of excess spoil and coal mine waste in perennial or intermittent streams or their buffer zones and select the alternative with the least overall adverse impact on fish, wildlife, and related environmental values. With

respect to activities in the stream itself, it replaced the findings required by the 1983 rule with a requirement for a finding that avoiding disturbance of the stream is not reasonably possible. It also required a demonstration of compliance with the Clean Water Act before the permittee initiates mining activities in a perennial or intermittent stream if those activities require authorization or certification under the Clean Water Act. With respect to activities confined to the stream buffer zone, the rule replaced the findings required by the 1983 rule with a requirement for a finding that avoiding disturbance of land within 100 feet of the stream either is not reasonably possible or is not necessary to meet the fish and wildlife and hydrologic balance protection requirements of the regulatory program. That rule, which is known as the 2008 stream buffer zone rule, took effect January 12, 2009. Shortly thereafter, environmental organizations filed suit challenging the validity of the rule and the adequacy of the environmental impact statement.

On April 27, 2009, the Federal Government filed a motion for voluntary remand and vacatur of the 2008 rule. The motion was based on the Secretary's determination that OSMRE erred in failing to initiate consultation with the U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act, 16 U.S.C. § 1536(a)(2), to evaluate possible effects of the 2008 rule on threatened and endangered species.

On August 12, 2009, the court denied the Federal Government's motion, holding that, absent a ruling on the merits, significant new evidence, or consent of all the parties, a grant of vacatur would allow the government to improperly bypass the procedures set forth in the Administrative Procedure Act, 5 U.S.C. 551 et seq., for repealing an agency rule.

On March 19, 2010, the parties involved in the litigation signed a settlement agreement in which the Secretary agreed to make best efforts to sign a proposed rule to amend or replace the 2008 rule within a year and sign a final rule within approximately 18 months. On April 2, 2010, the court granted the parties' motion to hold in abeyance further judicial proceedings concerning the 2008 rule to allow time for us to conduct this rulemaking.

However, for a variety of reasons, the Secretary had not yet published a proposed rule as of the beginning of 2013. Given this delay, on March 19, 2013, the court granted the plaintiffs' motions to resume the litigation.

On February 20, 2014, the court vacated the 2008 rule because "[OSMRE's] determination that the revisions to the stream protection rule encompassed by the 2008 Rule would have no effect on threatened and endangered species or critical habitat was not a rational conclusion" and that therefore our failure to initiate consultation on the 2008 rule was a violation of section 7(a)(2) of the Endangered Species Act. *NPCA v. Jewell*, 2014 U.S. Dist. LEXIS 152383, at *13-*14 (D.D.C. Feb. 20, 2014). Given the court's ruling in NPCA, the court determined that "there is no further relief that the court can grant" in Coal River and dismissed that case. *Coal River v. Jewell*, No. 08-2212, Memorandum Decision and Order of Dismissal.

The court remanded the vacated rule to us for further proceedings consistent with the decision. The court's decision also stated that vacatur of the 2008 rule resulted in reinstatement of the rule in effect before the vacated rule took effect. In response, we published a notice of vacatur in the *Federal Register*. Therefore, the proposed stream protection rule published on July 27, 2015, uses the pre-2008 rules as the baseline for all proposed changes.

All versions of the stream buffer zone rule that we have adopted over the years, including the version now in effect, focused primarily on activities in or within 100 feet of the stream itself. The 1983 stream buffer zone rule now in effect has historically been applied in a manner that allows mining through streams and the construction of excess spoil fills and coal mine waste disposal facilities in perennial and intermittent streams. However, the proposed stream protection rule takes a more comprehensive approach because mining activities outside the 100-foot stream buffer zone can adversely impact the quality and quantity of water in streams by disturbing aquifers, by altering the physical and chemical nature of recharge zones as well as surface-water runoff and infiltration rates and drainage patterns, and by modifying the topography and vegetative composition of the watershed. Thus, there are many components of our regulations that could be revised to improve implementation of SMCRA with regard to protection of streams in particular and the hydrologic balance in general. We have identified the following seven specific areas in which we propose to revise our regulations to better protect streams and associated environmental values:

First, we propose to define the term "material damage to the hydrologic balance outside the permit area" and require that the permit establish numerical material damage thresholds for all pertinent parameters. Perennial and intermittent streams derive their flow from both groundwater discharges and surface runoff from precipitation events. Therefore, there is a need to clearly define the point at which adverse mining-related impacts on both groundwater and surface water reach an unacceptable level; that is, the point at which adverse impacts from mining would cause material damage to the hydrologic balance outside the permit area. Neither SMCRA nor the existing regulations define the term "material damage to the hydrologic balance outside the permit area" or establish criteria for determining what level of adverse impacts would constitute material damage. The proposed rule would require that the regulatory authority establish material damage standards based upon stream condition index values.

Second, the proposed rule would require that each permit application contain adequate premining data about the site of the proposed mining operation and adjacent areas to establish a comprehensive baseline that will facilitate evaluation of the effects of mining. The existing rules require data only for a limited number of water quality parameters rather than the full suite needed to establish a complete baseline against which the impacts of mining can be compared. The existing rules also fail to cover the complete hydrologic cycle, which limits the value of the collected data. The existing rules also contain no requirement for determining the biological condition of streams within the proposed permit and adjacent areas, so there is no assurance that the permit application will include baseline data on aquatic life.

Third, the proposed rule would require effective, comprehensive monitoring of groundwater and surface water during and after both mining and reclamation and during the revegetation responsibility period to provide real-time information documenting mining-related changes in the values of the parameters being monitored. Similarly, the proposed rule would require monitoring of the biological condition of streams during and after mining and reclamation to evaluate changes in aquatic life. Proper monitoring will enable timely detection of any adverse trends and timely implementation of any necessary corrective measures, thus minimizing remediation costs. The existing rules require monitoring of only water quantity and a limited number of water-quality parameters, not all parameters necessary to evaluate the impact of mining and reclamation. The existing rules do not ensure that the number and location of monitoring points will be adequate to determine the impact of mining and reclamation. They also allow discontinuance or reduction of water monitoring too early to ascertain the impacts of mining and reclamation on water quality with a reasonable degree of confidence, especially for groundwater.

The proposed rule would require that the regulatory authority review the monitoring data every five years and order any permit revisions necessary to remedy any adverse trends that could result in material damage to the hydrologic balance outside the permit area. The monitoring data also must be evaluated as part of any application for bond release. No bond could be released if the monitoring data show adverse trends that could result in material damage to the hydrologic balance outside the permit area.

Fourth, the proposed rule would promote the protection or restoration of perennial and intermittent streams, including the headwater streams that are critical to sustaining the ecological health and productivity of downstream waters. The proposed rule would prohibit mining activities in perennial and intermittent streams, or on the surface of land within 100 feet of those streams, unless the regulatory authority finds that the proposed activity will not preclude any premining, designated, or reasonably foreseeable uses of the stream. If a mine operator chooses to mine through a perennial or intermittent stream, the proposed rule would require the company to restore both the hydrological form and the ecological function of the affected stream segment. The proposed rule also would require that the permittee establish a 100-foot-wide riparian corridor, using suitable native species, on disturbed lands along each bank of perennial, intermittent, and ephemeral streams, unless and until a conflicting postmining land use is implemented. Forested riparian corridors along streams moderate the temperature of water in the stream and provide food (in the form of fallen leaves and other plant parts) for the aquatic food web. The roots of trees and other riparian vegetation stabilize stream banks, while the vegetation and duff reduce surface runoff and filter sediment and nutrients in that runoff.

Furthermore, to minimize the length of stream buried by excess spoil fills, the proposed rule would require that mining companies design their operations to minimize the generation of excess spoil and to maximize the amount of spoil returned to the mined-out area. The rule would require that excess spoil fills be designed and constructed to be no larger than necessary to dispose of the excess spoil generated. The proposed rule would

prohibit the conversion of the final mining pit to a permanent impoundment if doing so would result in the creation of excess spoil or would violate approximate original contour restoration requirements. Fill construction techniques that involve end-dumping would be prohibited to be consistent with SMCRA, which requires that excess spoil be transported and placed in a controlled manner. The new criteria and standards should ensure the stability and durability of underdrains in fills and protect downstream water quality and the long-term stability of the fill. In addition, an operator choosing to construct an excess spoil fill in a perennial or intermittent stream would be required to implement fish and wildlife enhancement measures to offset the environmental harm resulting from the fill.

Fifth, as previously discussed, the proposed rule is intended to ensure that permit applicants, permittees, and regulatory authorities make use of advances in information, technology, science, and methodologies related to surface and groundwater hydrology, surface-runoff management, stream restoration, soils, and revegetation, all of which relate directly or indirectly to protection of water resources. The proposed rule also includes provisions intended to ensure thorough analysis of permit applications to avoid the approval of mining operations that create long-term water treatment obligations. Creating these long-term financial obligations compromises the economic vitality of mine operators and poses dangers to the environment and public. However, science is not perfect, so, when a discharge requiring long-term treatment nevertheless does develop, the proposed rule also provides for more appropriate financial assurance mechanisms (trusts and annuities that provide an income stream) in lieu of conventional bond instruments to ensure the availability of funds to cover treatment costs.

Sixth, the proposed rule contains provisions intended to better implement the statutory requirements that mined areas be restored to a condition capable of supporting the uses that they could support before any mining and that they be revegetated with native species. Nonnative grasslands historically established on mined land throughout Appalachia are not as productive as the native hardwood forests they replaced. These existing reclamation practices reduce the region's future economic opportunities in contravention of the law.

The proposed rule would require that mine operators salvage and redistribute topsoil, subsoil, and other soil materials to create a suitable growing medium with a root zone adequate to fully support native vegetation or the crops to be grown after mining is completed. The rule also would require that the operator salvage and use all organic matter such as tree roots and branches to promote more rapid revegetation. In addition, the proposed rule would require that the operator place soil materials in a manner that minimizes compaction and minimizes grading of soil materials after placement. Trees and other desirable vegetation struggle to survive on thin, compacted soils. These practices would enable the operator to restore the premining vegetation and related ecosystems. Soil characteristics and the degree and type of revegetation have a significant impact on surface-water runoff quantity and quality as well as on aquatic life and the terrestrial ecosystems dependent upon perennial and intermittent streams.

The proposed rule would require that operators use native species when replanting mine sites unless the use of those species would conflict with an approved postmining land use, such as intensive agriculture, that is implemented before the end of the revegetation responsibility period. For areas to be revegetated with woody plants, the proposed rule would require that a professional forester or ecologist develop the planting plan for the areas in which trees and shrubs are to be planted. The rule would also require the establishment of revegetation success standards that demonstrate that the reclaimed minesite is capable of supporting all uses it was capable of supporting before any mining, not just a single postmining land use.

Seventh, the proposed rule would update and strengthen procedures for protection of Federally-listed threatened and endangered species and designated critical habitat under the Endangered Species Act of 1973. It would add provisions and procedures for protection of species proposed for listing as threatened or endangered under Section 4 of the Endangered Species Act and expand provisions concerning enhancement of fish and wildlife in general. It would better explain how the fish and wildlife protection and enhancement provisions of SMCRA should be implemented. The enhancement measures would be mandatory when an operation causes long-term environmental harm; the enhancement measures must be commensurate with the harm caused by the operation.

The draft Regulatory Impact Analysis (RIA) for the proposed rule predicts that, for the 21-year period from 2020 to 2040, the proposed rule would have the following benefits to streams:

- 6,153 miles of stream downstream from mining operations would be in better condition after mining under the proposed rule than they would be if mining occurred under the existing regulations.
- 21 miles of stream would be preserved.
- 84 miles of stream would not be filled.
- 609 miles of streams would be mined through and restored.

In addition, the draft RIA predicts that 59,010 acres would be reforested or reforested in an improved manner under the proposed rule and that 420 acres of existing forest would be preserved.

Coal production is expected to decline, even under the existing regulations. The draft RIA predicts that market conditions such as the demand for coal and the availability and price of natural gas and alternative sources of energy will result in a decline in annual coal production of approximately 15 percent (162 million tons) over the 21-evaluation period without any changes to the existing regulations. The draft RIA estimates that the proposed rule would reduce annual coal production by an additional 0.2 percent (1.9 million tons) over that period, including a decline in Appalachia of approximately one million tons. The Northern Rocky Mountains and Great Plains region would experience a slightly smaller decline. Most areas would not experience a decline as a result of the proposed rule.

The draft RIA that compliance costs associated with the proposed rule would total approximately 52 million dollars each year, with the largest impacts in Appalachia at 24 million dollars each year, and in the Illinois Basin at 14 million dollars each year. We intend to ask Congress to provide Small Operator Assistance Funding, as authorized under existing law, to cover most of the additional costs for small operators.

The draft RIA predicts that the proposed rule would have minimal impacts on employment, with an average annual reduction of 260 jobs related to coal production and an annual average increase of 250 jobs related to compliance with the proposed rule. This means production-related job losses would be largely offset by increases in compliance-related jobs.

The proposed rule includes reasonable and straightforward reforms to revise 30-year-old regulations for coal mining in order to avoid or minimize impacts on surface water, groundwater, fish, wildlife, and other natural resources. The proposed rule keeps pace with current science, technology, and modern mining practices, while also safeguarding communities from the long-term effects of pollution and environmental degradation that endanger public health and undermine future economic opportunities. Every reclamation practice contained in the proposed rule has been successfully implemented by a mine operator somewhere in the country.

The proposed Stream Protection Rule will accomplish what Americans expect from their government – a modern and balanced approach to energy development that safeguards our environment, protects water quality, supports the energy needs of the nation, and makes coalfield communities more resilient for a diversified economic future.

Thank you for the opportunity to appear before this joint subcommittee hearing today.