GOODBYE, STREAM PROTECTION RULE: THE CHOICE BETWEEN PROTECTING THE COAL INDUSTRY OR NATURAL RESOURCES

"The future will either be green or not at all."
—Bob Brown

Shortly after the Trump Administration took office, Congress and the White House repealed the Obama Administration's Stream Protection Rule, which reverted regulations on surface coal mining to the regulations issued in 1983. The 1983 regulations inadequately protect natural resources because they do not address the coal industry's drastic advances in mining practices or new scientific data evidencing coal's adverse environmental effects. This Comment analyzes and compares current regulations and the Stream Protection Rule to illustrate the inadequacies of the regulations in addressing the adverse effects of surface coal mining on natural resources. To address this issue, the federal government needs to enact new laws or mandate agencies to issue new regulations in order to provide federal guidance on how to appropriately and effectively address the inadequacies of current regulations.

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I. INTRODUCTION

Energy production and consumption in the United States has changed over time due to advances in technology, energy resource discoveries, energy prices, social pressures, and various other factors.² Although wood was the main energy source in the United States until the mid- to late-1800s, coal became the preeminent energy source beginning in the late nineteenth century until petroleum surpassed it in the middle of the twentieth century, a time when natural gas usage also increased quickly.³ While the types of energy used in the United States have developed and changed over time, the three major fossil fuels—coal, petroleum, and natural gas—have accounted for most of the energy produced and consumed in the country for well over the last one hundred years.⁴

Of these fossil fuel sources, coal is the least expensive to produce and convert to useful energy, but is also the dirtiest—“producing per kilogram the least amount of energy and the greatest amount of pollution.”⁵ Mining coal changes the land and alters the chemistry of rainwater runoff, which results in damaging effects to stream and river water quality.⁶ In response, federal and state governments have enacted various laws and regulations to help combat some of the effects coal has on natural resources. These laws and regulations tend to focus either on the environmental effects of mining coal or the environmental effects of burning and using coal.⁷ Despite these laws and regulations, the coal industry is a dying industry that continues

to decline with the discovery and use of different energy sources. Thus, federal and state governments should focus on and address the adverse impacts of coal instead of trying to save the dying coal industry by overturning much needed laws and regulations.

This Comment addresses the need to create new, or revise current, regulations of surface coal mining due to the fact that existing regulations inadequately protect waterways, land, fish, wildlife, and other natural resources. Part II explains surface coal mining’s adverse effects on natural resources. Part III provides an overview of existing rules on surface coal mining that pertain to natural resource protection, specifically analyzing the Surface Mining Control and Reclamation Act of 1977 and subsequent regulations, focusing on the overturned 2017 Stream Protection Rule. Then, Part IV discusses possible options for addressing the inadequacy of existing regulations following Congress’s repeal of the Stream Protection Rule. This Comment concludes by reiterating that natural resources need adequate protection from surface coal mining’s adverse effects, and the most effective way to accomplish this is through federal laws and regulations that set a federal standard for natural resource protection.

II. PROTECTING STREAMS, FISH, WILDLIFE, AND OTHER ENVIRONMENTAL VALUES

From cavemen using coal for heat, to Native Americans using coal for cooking, making clay pots, and heating, coal has been a part of human civilization for centuries. Yet, it was not until the mid-1700s that the first coal mining operations opened in the United States. Until the late nineteenth century, coal miners commonly used a pick and shovel to mine coal underground. However, as coal became a major source of energy across the country, the coal industry developed new and more advanced mining methods.

8. Robert Rapier, Don’t Blame Renewable Energy for Dying U.S. Coal Industry, FORBES (Mar. 18, 2016), https://www.forbes.com/sites/rrapier/2016/03/18/whats-killing-the-coal-industry/#3390da6b7dd4 (“There are a number of reasons behind the demise of the U.S. coal industry, but the biggest factor is displacement of coal by natural gas in the power generation sector.”).


10. Id.


In the mid-1900s, surface coal mining became widespread throughout the coal industry. In general terms, surface coal mining consists of removing the topsoil, rock, and other strata that lie above coal deposits. The mining creates a drastic reshaping of the surface, which results in "square miles of land [that] may be turned over to a depth of 100 feet or more and valleys rimmed by mile after mile." This impacts the quality of air, land, and water—all of which influence animal and plant life.

During the mining process, natural vegetation is removed, which results in the land becoming "virtually useless for wildlife because it becomes barren of food, nesting, and escape cover" and leads to soil erosion and destruction of agricultural land. The resulting soil erosion creates silt and sediment that can impact fish and wildlife habitat. The average annual sediment yield from surface coal mined lands is often much higher than in areas where such mining is not present. Eliminating existing vegetation and altering the soil profile, which disturbs and often destroys the beneficial microorganisms in the topsoil, causes long-term damage to land resources. In some instances, surface coal mining can alter lands in ways that prevent a return to their pre-mining use, such as farming. Surface coal mining has had drastic adverse effects on lands across the United States. From 1930 to 2000, surface coal mining altered about 5.9 million acres of the country’s natural landscape.

Furthermore, surface coal mining can be a significant source of pollution in water supplies. Surface mining causes major water pollution through chemical pollution due to high concentrations of dissolved minerals. When the sulfur-bearing minerals associated

15. Id. at 51.
16. Id.
17. Id. at 56. Although surface mining releases dust and other substances into the air, surface mining is not considered a major contributor to air pollution. Id.
18. Id.
21. Id. at 63. The research used in the 1967 Department of the Interior’s report indicated that yields from coal strip-mined lands in Kentucky were as much as one thousand times that of undisturbed forest. Id.
23. Id.
with coal are exposed to air and water they oxidize to form sulfuric acid, which may enter streams through surface runoff and ground water.26 Additionally, metals, such as lead, arsenic, and aluminum, can contaminate surface runoff and groundwater, making water supplies toxic to fish, wildlife, plants, and aquatic insects and can cause serious adverse human health effects.27 Thousands of miles of streams have been degraded by mine drainage and runoff, and exposed minerals may continue to leach for many years to come.28

While this discussion only briefly identifies some of surface coal mining's major adverse effects on natural resources, it illustrates the necessity for adequate natural resource protection. If surface coal mining's harmful impacts are ignored, natural resources will suffer or even be destroyed. The United States can balance its need for coal as an energy source with protection of its natural resources, but the current balance is heavily tilted in surface coal mining's favor.

III. OVERVIEW OF SURFACE COAL MINING LAWS AND REGULATIONS

As the demand for coal escalated across the country in the mid-1900s, the coal industry increased its mining efforts with little regard for natural resources.29 In response, numerous states enacted laws regulating coal surface mining.30 However, these laws, which differed from state to state, were largely unsuccessful at curtailing the environmental consequences of surface coal mining.31 Therefore, Congress passed the Surface Mining Control and Reclamation Act ("SMCRA")32 in 1977 in an effort to create a national, uniform law to regulate surface coal mining and facilitate the remediation of mined areas following coal extraction.33 This led to new federal regulations of surface coal mining in later years.34 Despite these laws and

26. Id. at 63.
27. Id.; SUILLACE, supra note 22.
28. SUILLACE, supra note 22.
33. Id.
regulations, many of the same harmful effects previously discussed persist today.\textsuperscript{35}

A. The Surface Mining Control and Reclamation Act of 1977

SMCRA created the Office of Surface Mining Reclamation and Enforcement ("OSMRE"), a bureau within the Department of the Interior, and charged the Secretary of the Interior and OSMRE with the responsibility to carry out SMCRA’s requirements both directly and by promulgating regulations.\textsuperscript{36} Section 1202 states a number of OSMRE’s goals and purposes, including to "establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations"\textsuperscript{37} and the need to "strike a balance between protection of the environment and agricultural productivity and the Nation’s need for coal as an essential source of energy."\textsuperscript{38} Congress identified stream and river protection as a fundamental purpose of SMCRA due to surface coal mining operations “destroying or diminishing the utility of land... by causing erosion and landslides, by contributing to floods, by polluting the water, by destroying fish and wildlife habitats... and by counteracting governmental programs and efforts to conserve soil, water, and other natural resources.”\textsuperscript{39}

SMCRA outlines specific requirements for surface coal mining operations. For example, §515 details minimum environmental performance standards that generally require that land be “restored after mining to its approximate original contour..., that it be revegetated, that acid mine drainage be prevented, that subsided lands be restored, that erosion be controlled, and that certain other measures be taken to reclaim affected lands and waters.”\textsuperscript{40} Section 509 requires mining operators to obtain a performance bond to demonstrate their financial capability to fulfill SMCRA obligations, specifically the reclamation of the affected land.\textsuperscript{41}

Further, §506 requires a mining operator to obtain a permit from the regulatory authority before the operator commences mining operations. Additional requirements include the authority to order public hearings and appeals of mining permits or other permit-related actions. The regulations under SMCRA are enforced by the OSMRE, which has the authority to issue regulations, conduct inspections, and assess penalties for violations. The OSMRE is also responsible for the cleanup of abandoned mine lands. OSMRE is a bureau within the Department of the Interior, and its primary purpose is to regulate and oversee surface coal mining operations.

\textsuperscript{36} Who We Are, U.S. DEP’T OF THE INTERIOR OFF. SURFACE MINING RECLAMATION ENF’T, https://www.osmre.gov/about.shtm (last visited Aug. 8, 2017). Initially, the OSMRE directly enforced mining laws and arranged the cleanup of abandoned laws, but now the OSMRE focuses on overseeing the state programs that do those jobs. Id.
\textsuperscript{37} 30 U.S.C. § 1202(a) (2012).
\textsuperscript{38} Id. § 1202(f).
\textsuperscript{39} Id. § 1201(c).
\textsuperscript{40} CLAUDIA COPELAND, CONG. RESEARCH SERV., R44150, THE OFFICE OF SURFACE MINING’S PROPOSED STREAM PROTECTION RULE: AN OVERVIEW 1, 2 (2016) [hereinafter STREAM PROTECTION RULE: AN OVERVIEW].
operations. This requirement is designed to protect public health, safety, and the environment. It gives federal and state regulatory authorities enforcement powers over mining operations and enables them to determine whether mining may occur and under what terms. The permit provides regulatory authorities a basis for evaluating the risk, if any, to water supplies, land surfaces, and other resources. The permit also allows regulatory authorities to evaluate the feasibility of reclamation.

In order to obtain a permit, mining operators must submit extremely detailed information, including the operator’s plans for the proposed mining and reclamation operations, what the current environmental conditions and land use are of the proposed mining land, how the operator will meet SMCRA environmental performance standards, and how the land will be used after reclamation is complete. Therefore, permit issuance is conditioned on an operator’s demonstration that it can successfully mine and reclaim in compliance with all of the requirements and standards of SMCRA and its implementing regulations. In sum, SMCRA was the first major effort to adequately protect natural resources from surface coal mining’s harmful effects.

B. Regulations and New Mining Methods Prior to the Stream Protection Rule

In 1979, OSMRE developed performance standards for surface mining operations to implement SMCRA. Among these standards was the stream buffer zone rule, which provided that no surface area within 100 feet of a perennial stream... or a non-perennial stream with a biological community may be disturbed by surface operations or facilities unless... the original stream channel would be restored and that, during and after mining, the activities would not adversely affect the quantity and quality of the stream segment within 100 feet of those activities.

In 1983, OSMRE revised this rule and related rules to protect perennial and intermittent streams by providing that the regulatory authority must grant a variance that specifically authorizes surface mining activities through a stream or closer than one hundred feet to

42. Id. § 1256.
43. STREAM PROTECTION RULE: AN OVERVIEW, supra note 40, at 3.
44. Id.
45. Id.
46. Id.
48. See id.
49. STREAM PROTECTION RULE: AN OVERVIEW, supra note 40, at 5.
50. Id. Perennial streams are defined as a “stream having flowing water year-round during a typical year.” Id.
a stream.\textsuperscript{51} To grant such a variance, the regulatory authority must find that "the proposed mining activity will not cause or contribute to a violation of applicable water quality standards."\textsuperscript{52} However, the 1983 rules no longer required the original stream channel be restored. But, the rules did require protection for all intermittent streams instead of using the biological community criterion in the 1979 rules for determining which non-perennial streams must be protected.\textsuperscript{53}

These initial rules were somewhat successful in helping reduce some of surface coal mining's harmful effects on natural resources. Since OSMRE enacted these rules, the coal industry has successfully reclaimed millions of acres of mined lands—millions of trees have been planted, wetlands restored, mined lands that were reclaimed for farmland show high levels of productivity, and hundreds of thousands of acres of mined lands abandoned before SMCRA was passed have been restored.\textsuperscript{54} Despite these accomplishments, surface coal mining continues to cause harm to many natural resources. A major contributor to this is the drastic changes in mining practices and techniques that have occurred since SMCRA's enactment.\textsuperscript{55}

In the decades following the enactment of SMCRA, intense competition between eastern and western coal mining operations led to corporate mergers, consolidations, and bankruptcies across the coal industry.\textsuperscript{56} This competition led to new mining methods as the nation's largest coal producers searched for ways to make mining more efficient, productive, and less labor-intensive.\textsuperscript{57} In response to the competition with cheap western coal, mountaintop removal, a surface coal mining technique that existed only on a small scale prior to SMCRA, increased drastically in central Appalachia in the 1990s.\textsuperscript{58}

Mountaintop removal involves the use of explosives and large-scale demolition equipment to blast soil and rock on top of a mountain to expose and access seams of coal.\textsuperscript{59} The contour of the mountain is

\textsuperscript{51} Id. An intermittent stream is one that has flowing water during certain times of the year, when groundwater provides stream flow. Id.

\textsuperscript{52} Id.

\textsuperscript{53} Id.


\textsuperscript{56} Id.

\textsuperscript{57} Id. at 55.

\textsuperscript{58} Id. at 55–56.

permanently altered as springs, streams, vegetation, forest, wildlife, and soil on the mountain’s surface are permanently removed.\textsuperscript{60} Some of the exposed material contains rock and other minerals, which are called mining spoils.\textsuperscript{61} The mining spoils are often placed in valleys, burying streams and destroying the natural environment, resulting in a valley fill.\textsuperscript{62} As headwater streams in the valley and the mountain move spring water, rainwater, and snowmelt into the valley fill, debris is picked up and moved out of the valley fill into streams and waterways, contaminating them with toxic heavy metals.\textsuperscript{63}

Since the 1990s, mountaintop removal has destroyed hundreds of mountains and thousands of miles of streams in central Appalachia.\textsuperscript{64} In theory, SMCRA and the 1983 rules ought to mitigate this. SMCRA says that mining companies should not cause “material damage to the environment to the extent that it is technologically and economically feasible.”\textsuperscript{65} Under the 1983 rules, mining companies cannot dump valley fills within one hundred feet of any intermittent or permanent stream if the material would harm a stream’s water quality or reduce its flow.\textsuperscript{66} However, since OSMRE enacted these rules, it has not clarified what this entails. Further, it has not updated these rules to account for the drastic changes in mining practices (e.g., mountaintop removal) and new scientific data\textsuperscript{67} evidencing the harmful effects of water pollution from surface coal mining. In addition to this lack of clarification and modernization, courts have issued conflicting interpretations of the 1983 regulations.\textsuperscript{68} Therefore, OSMRE’s and courts’ interpretations that do not apply the 1983 rules to valley fills allowed the dumping of mountaintop removal debris to continue for years.\textsuperscript{69}

In 1998, West Virginia residents living near valley fills filed a SMCRA citizen suit over mountaintop removal practices in the state.\textsuperscript{70} In a partial settlement, the OSMRE, the Army Corps of Engineers, and the Environmental Protection Agency agreed to complete a Programmatic Environmental Impact Statement (“PEIS”) on the effects of mountaintop removal mining.\textsuperscript{71} In 2007, the OSMRE

\begin{thebibliography}{99}
\bibitem{60} Id. at 62.
\bibitem{61} Id.
\bibitem{62} Id.
\bibitem{63} Id.; Plumer, \textit{supra} note 12.
\bibitem{64} Plumer, \textit{supra} note 12.
\bibitem{68} See Eilperin, \textit{supra} note 66.
\bibitem{69} See id.
\bibitem{70} See Bragg v. Robertson, 54 F. Supp. 2d 635, 637 (S.D. W. Va. 1999).
\bibitem{71} See \textit{STREAM PROTECTION RULE: AN OVERVIEW}, \textit{supra} note 40, at 5.
\end{thebibliography}
released the PEIS and proposed changes to its 1983 rules, including the stream buffer zone rule, and issued final revised buffer zone rules in December 2008. The final rule did not mandate that coal companies avoid dumping mining debris in or within one hundred feet of perennial or intermittent streams in all cases because “there is sometimes no viable alternative to the construction of coal mine waste disposal facilities in perennial or intermittent streams and their buffer zones, in which case avoidance is not reasonably possible.” Additionally, the 2008 rule did not require mining companies to restore stream ecological functions and it eliminated the provision in the 1983 rule that required a finding that the proposed activity would not cause or contribute to a violation of water quality standards.

The 2008 rule did little to address or change the dumping of excess mining debris into valleys and streams, which prompted environmental groups to challenge the rule in federal courts. The Obama Administration sought to vacate the 2008 rule and return to the 1983 rule, which the Administration believed to be more stringent. In 2014, a federal court vacated the 2008 rule and reinstated the 1983 rules due to OSMRE issuing the 2008 rule without the necessary consultation with federal wildlife agencies required under the Endangered Species Act. As a result, mining regulations returned to the 1983 rules, which did not address the need for adequate protections of natural resources from surface coal mining. Therefore, revisions to these rules, or a new rule, were still needed to resolve this problem.

C. The Stream Protection Rule

In 2016, OSMRE released a new rule, known as the Stream Protection Rule ("SPR"), to address the need for regulatory improvements on surface coal mining. OSMRE stated that its purpose in adopting SPR was to “strike a better balance between

72. Id. OSMRE developed the PEIS in 2003 and proposed changes to the rules in 2004, but it never finalized the 2004 proposal, and it decided to prepare a new PEIS and draft revised rules. Id.
74. Id.
76. STREAM PROTECTION RULE: AN OVERVIEW, supra note 40, at 6.
78. 81 C.F.R. § 93,066 (2016).
79. Stream Protection Rule, 80 Fed. Reg. 44,436, 44,443 (July 27, 2015). To develop the proposed rule, OSMRE considered nine regulatory alternatives, including retaining the existing rules (the 1983 regulations), reinstating the 2008 rules, and seven other options. STREAM PROTECTION RULE: AN OVERVIEW, supra note 40, at 8.
‘protection of the environmental and agricultural productivity and the Nation’s need for coal as an essential source of energy.”80 Specifically, OSMRE designed the SPR to “minimize the adverse impacts of surface coal mining operations” on waterways and site productivity, with particular emphasis on “protecting or restoring streams, aquatic ecosystems, riparian habitats and corridors, native vegetation, and the ability of mined land to support the uses that it was capable of supporting before mining.”81 SPR allowed OSMRE to more completely implement SMCRA’s sections that required surface coal mining operators to conduct mining and reclamation operations, to the extent possible and using the best available technology, to “minimize disturbances and adverse impacts on fish, wildlife, and related environmental values.”82 The final rule was long—380 pages in the Federal Register83—and complex, containing numerous major elements, a few of which will be discussed in more detail below.

First, one of SPR’s major elements was defining the phrase “material damage to the hydrologic balance outside the permit area.” SMCRA § 510(b)(3) requires mine operators to prevent “material damage to the hydrologic balance outside the permit area,”84 but neither SMCRA nor the 1983 rules define this. SPR addressed this issue by defining the phrase as any “adverse impact, from surface coal mining and reclamation operations ... on the quality of surface water or groundwater, on the biological condition of a perennial or intermittent stream.”85

SPR also required that each permit for surface coal mining establish the point at which adverse impacts from such mining on groundwater and surface water reach an unacceptable level, with “unacceptable level” being material damage to the hydrologic balance outside the permit area.86 This essentially set a minimum standard for the amount of pollutants allowed in waterways. By defining this term and setting minimum standards, OSMRE provided some of the guidance and clarity that SMCRA and the 1983 rules lack. Providing a clear definition of “material damage to the hydrologic balance outside the permit area” decreases the likelihood of differing enforcement across states on this issue. Additionally, setting standards for surface coal mining pollution helps ensure minimum standards are met, which will decrease the adverse impacts on natural resources.

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82. Id. (referencing 30 U.S.C. §§ 1265(b)(24), 1266(b)(11) (2012)).
86. Id. at 93,068; see id. at 93,109–15.
Second, SPR established procedures to collect adequate baseline data of pre-mined lands and outlined how surface coal mining operators can conduct effective, comprehensive monitoring of waterways during mining and reclamation. The 1983 rules require minimal baseline data collection for a limited number of parameters. Therefore, it is challenging to prove that surface coal mining operators caused the pollution in streams and other waterways because there is little, if any, baseline data to evidence this. Further, the 1983 rules require limited monitoring of the quantity and quality of surface water and groundwater. SPR addressed these issues by expanding the requirements for baseline data collection and broadening the scope and timeframe of groundwater and surface water monitoring. The purpose of these changes was to address the inadequacies of the 1983 rules' data and monitoring requirements in order to help evaluate the effects of surface coal mining operations and enable timely detection of any adverse environmental trends. As a result of these changes, regulatory authorities would have adequate data to prove that mining operators contributed to or caused the damage to natural resources and could hold the operators accountable for doing so before the damage became too severe.

Third, SPR required the protection and restoration of streams, lands, and related resources. It accomplished this by ensuring that mining companies maintain, restore, or establish a one hundred-foot vegetative or riparian corridor, comprised of native species, along streams that are restored or permanently diverted. This would help

87. Id. at 93,068.
88. DEP'T OF THE INTERIOR, OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT, ENVIRONMENTAL IMPACT STATEMENT FOR THE STREAM PROTECTION RULE ES-10 (2016) [hereinafter ENVIRONMENTAL IMPACT STATEMENT]. The 1983 rules required baseline data only for a limited number of water-quality parameters and contained no requirement for determining the biological condition of streams within the proposed permit area and adjacent areas. See id. These parameters require data of pH, total iron and manganese, acidity and alkalinity, and a description of the geology of the proposed permit area and the adjacent area. Id.
89. See 30 C.F.R. §§ 780.21, 780.22 (2017).
90. STREAM PROTECTION RULE: AN OVERVIEW, supra note 40, at 9.
91. Id. Examples of the rule's expanded data requirements include establishing minimum sample collection intervals, expanding the group of parameters for which mining permit applicants must analyze surface water and groundwater samples, and requiring baseline data on all intermittent and perennial streams as well as a representative number of ephemeral streams. Id. Examples of the rule's broadened monitoring requirements include annual monitoring of the biological conditions of streams, monitoring of surface water and ground water at least quarterly, and identifying adverse trends in the mined area. Id.
moderate water temperature, provide food for fish and wildlife, stabilize stream banks, reduce surface runoff, and filter sediment and nutrients in surface runoff—all of which are important to maintaining the ecological health and productivity of waterways.\textsuperscript{94} The 1983 rules’ only requirement to this effect is that mining operators “must avoid disturbances to, enhance where practicable, restore, or replace, wetlands, and riparian vegetation along rivers and streams.”\textsuperscript{95} SPR was less vague than the 1983 rules, which would help provide coal-mining companies and regulatory authorities clear requirements for protecting or restoring the ecological function of streams. Furthermore, it ensured that land disturbed by surface coal mining be restored to a condition capable of supporting \textit{all} uses that it was capable of supporting before mining.\textsuperscript{96} SMCRA and the 1983 rules focus primarily on the land’s suitability for a \textit{single} approved postmining land use.\textsuperscript{97} Therefore, SPR was much stricter in this regard, which would better protect mined lands.

Additionally, SPR authorized approval of mountaintop removal mining operations only when natural resources will not be destroyed;\textsuperscript{98} required surface coal mining operators to implement revegetation, soil, and fish and wildlife protection and enhancement measures;\textsuperscript{99} and updated measures to protect threatened and endangered species.\textsuperscript{100} As a result of SPR’s changes to SMCRA and the 1983 rules, OSMRE estimated that six thousand miles of streams and fifty-two thousand acres of forest would be protected from the adverse effects of surface coal mining.\textsuperscript{101} Also, OSMRE estimated that these changes would improve human health by reducing

\begin{itemize}
\item \textsuperscript{94} \textbf{ENVIRONMENTAL IMPACT STATEMENT,} \textit{supra} note 88, at ES-8.
\item \textsuperscript{95} \textit{Id.} at ES-39.
\item \textsuperscript{96} \textit{Id.} at ES-8. The rule provides an exception to this if the approved postmining land use is implemented before final bond release. \textit{Id.} at 1–12.
\item \textsuperscript{97} \textit{Id.} at 1–12.
\item \textsuperscript{98} \textit{Id.} at ES-25. The rule requires permit applicants to meet certain criteria in order to demonstrate that natural watercourses will not be destroyed. \textit{Id.} It also requires mountaintop removal operators to reforest mining sites with native species if the site was forested before mining and install drains to prevent saturation. \textit{Id.}
\item \textsuperscript{99} \textsuperscript{see} \textit{id.} at ES-25–ES-27. The rule explains how the fish and wildlife protection and enhancement provisions of SMCRA should be implemented. \textit{Id.} at ES-2.
\item \textsuperscript{100} \textit{Id.} at ES-2. Specifically, the rule updates and codifies “requirements and procedures to protect threatened and endangered species and designated critical habitat under the Endangered Species Act . . . .” \textit{Id.}
\end{itemize}
exposure to pollutants in drinking water.\textsuperscript{102} Although SPR would increase compliance costs to the coal industry and is not perfect for either the coal industry or environmentalists,\textsuperscript{103} it addressed the need for adequate and effective protection of waterways, fish, wildlife, and other natural resources.

IV. THE OVERTURN OF THE STREAM PROTECTION RULE AND THE NEED FOR FUTURE ACTION

SPR was among the most controversial environmental regulations that the Obama Administration enacted. Opponents of SPR, especially the coal industry and Republicans, argued that the rule would be costly to implement and lead to job losses across the sector.\textsuperscript{104} Senate Majority Leader Mitch McConnell stated, “the stream buffer rule will cause major damage to communities and threaten coal jobs.”\textsuperscript{105} However, environmentalists and other proponents of SPR argued that it would protect waterways from pollution and preserve public health.\textsuperscript{106}

Since SPR was not finalized until December 2016, the new Congress could easily overturn the rule in 2017 using the Congressional Review Act (“CRA”)\textsuperscript{107} with simple majority votes in both chambers and the approval of President Trump.\textsuperscript{108} In February 2017, Congress used the CRA and voted, mainly along party lines, to repeal SPR, which President Trump signed into law shortly thereafter.\textsuperscript{109} As a result, surface coal mining regulations will now default to back the 1983 rules.

As previously illustrated, the 1983 rules fail to adequately address surface coal mining’s adverse effects on natural resources.\textsuperscript{110} Additionally, federal and state regulatory authorities have failed to

\textsuperscript{102} REGULATORY IMPACT ANALYSIS, supra note 101, at ES-2.
\textsuperscript{103} See id. (discussing that the anticipated compliance costs could range from $65 million to $85 million).
\textsuperscript{105} Id.
\textsuperscript{106} Id.
\textsuperscript{107} See 5 U.S.C. §§ 801–08 (2012). Under the terms of the CRA, there is a brief period at the beginning of a new administration during which rules issued toward the end of the previous administration can be overturned. See id.; Christopher M. Davis & Richard S. Beth, Agency Final Rules Submitted on or After June 13, 2016, May Be Subject to Disapproval by the 115th Congress, CRS INSIGHT (Dec. 15, 2016), https://fas.org/sgp/crs/misc/IN10437.pdf.
\textsuperscript{108} Davis & Beth, supra note 107. Democrats in the Senate would not be able to filibuster this action since CRA votes cannot be filibustered. Id.
\textsuperscript{109} Henry, supra note 104; Silverstein, supra note 101.
\textsuperscript{110} See supra Part III.B.
effectively enforce these rules. Both problems have resulted in the coal industry burying thousands of miles of streams and destroying hundreds of mountains in central Appalachia. Without SPR, the coal industry will be able to return to some of its destructive practices with little regard for natural resources. Therefore, new actions need to be taken to adequately protect waterways, fish, wildlife, and other natural resources from surface coal mining’s harmful effects.

A. State Enforcement

One of the most direct solutions to address the need for adequate and effective protection of the natural resources harmed by surface coal mining is for states to increase and strengthen enforcement within their borders. Under the 1983 rules, states have the flexibility to tailor regulatory action and enforcement to account for local and regional differences in geology, hydrology, mining, and reclamation. For example, each states’ regulatory authority can tailor its definition or interpretation of “material damage to the hydrologic balance outside the permit area.” States should clarify or strengthen their enforcement of this phrase to accomplish what SPR attempted to do.

While flexibility is an important aspect of regulations, such flexibility is undermined when states refuse or fail to take action. The fact that very few states have adopted a definition of “material damage to the hydrologic balance outside the permit area” in the more than thirty years since SMCRA’s enactment is a perfect example of how states are failing to take such action. Further, Representative John Yarmuth of Kentucky argued against the CRA vote to overturn SPR because he lacked “any confidence that our state would do a good job” and noted that Kentucky has “talked a good game about how they’re up to the task of protecting the environment and protecting our citizens, but they haven’t done it yet.”

SPR addressed many of these issues through the provisions previously discussed. Without this rule, surface coal mining

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113. See, e.g., Stream Protection Rule, 81 Fed. Reg. 93,066, 93,109 (Dec. 20, 2016) (discussing the necessity for states to have flexibility in regulatory actions and enforcement in order to meet their specific needs).
114. 30 U.S.C. § 1266(b)(1) (2012); see supra Part III.C.
regulations return to the outdated and inadequate 1983 rules. Additionally, the range of shortcomings in states' regulatory programs, including broad failures to enforce existing rules,117 illustrates that it is unlikely that waterways, fish, wildlife, and other natural resources will be adequately protected. Therefore, as long as states continue to ineffectively enforce environmental protections regarding surface coal mining, the same problems experienced over the last few decades will persist.

B. Congressional Mandate

A long-term solution to address the need for adequate natural resource protections from surface coal mining is a congressional mandate. This option consists of Congress passing a bill that either contains SPR (or a version of it) or directs OSMRE to develop a new rule. According to Cary Coglianese, director of the Penn Program on Regulation at the University of Pennsylvania Law School, both of these options are possible and have been done before.118 Both options provide the opportunity to address the same, or similar, concerns of SPR. However, since the current Congress voted to overturn SPR, it is unlikely that the current Congress will even consider either of these options in the near future.

Furthermore, it is likely that Democrats will need to control both Congress and the presidency for either of these options to happen. This is not to say that Republicans are not capable or interested in protecting natural resources. For example, Teddy Roosevelt advocated for a federal system of parks, forests, and monuments to help conserve natural resources and extend protection to land and wildlife.119 Additionally, some of the nation's landmark pieces of environmental legislation were enacted during and at the direction of the Nixon Administration. These include the creation of the Environmental Protection Agency120 and the National Oceanic and Atmospheric Administration,121 and the enactment of the National Environmental Policy Act,122 Clean Air Act,123 Clean Water Act,124 and Endangered Species Act.125 However, the Republican Party, at

117. See id.; Mayhall, supra note 111, at 1470.
118. Lee, supra note 116.
123. Id. § 7401.
least in its current form, tends to disfavor government regulations, which is evident in the Party’s approach to coal regulations. The coal industry and its supporters, including many members of the Republican Party, use the term “war on coal” to describe what they view as the federal government’s attempt to make coal power uneconomical through stringent and burdensome regulations. Specifically, the coal industry and its allies argued that SPR was “hugely expensive and a job killer” and viewed the rule as “unnecessary government overreach, [and] regulatory duplication.” They emphasize that once such onerous rules, like SPR, are overturned, the coal industry can return to the levels of success it had in the past. Regardless of which side is correct regarding whether less regulation will save the coal industry, it is clear that Congress and President Trump are unwilling to update existing surface coal mining rules to adequately and effectively address the need for protection of our natural resources. Therefore, congressional mandates will likely rely on Democratic control of both Congress and the White House, which means that these are not viable options until at least 2020.

C. Litigating the Congressional Review Act

Another option to address this issue is OSMRE issuing new rules to provide natural resources the necessary protections against the adverse effects of surface coal mining. However, a major problem with this option is a provision in the CRA. The CRA bars federal agencies from issuing a rule that is “substantially the same” as one overturned under the CRA. Although Congress has always had the authority to pass a law invalidating a rule, this provision is a crucial component of the CRA because it allows Congress to prohibit certain future rules almost automatically. Therefore, unless

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126. See generally REPUBLICAN NAT’L COMM., REPUBLICAN PLATFORM 2016 at ii (2016) (discussing the Republican Party’s views that government regulations are burdensome and punish the states and the people).
129. Silverstein, supra note 101.
130. Id.
132. Adam M. Finkel & Jason W. Sullivan, A Cost-Benefit Interpretation of the “Substantially Similar” Hurdle in the Congressional Review Act: Can OSHA Ever Uter the E-Word (Ergonomics) Again?, 63 ADMIN. L. REV. 707, 709 (2011) (explaining that Congress would have to “pass a law invalidating a rule and specifically state exactly what the agency could not do to reissue it”).
133. Id.
Congress repeals the CRA, OSMRE is prohibited from issuing future rules that are “substantially the same” as SPR in the future.

Although the CRA’s prohibition against substantially similar rules is clear, a major issue with this provision is that neither Congress nor any reviewing court has yet to consider a reissued regulation for substantial similarity to an overturned one. Since this clause has never been tested, it is not clear what would and what would not count as substantially the same. Some legal scholars argue “a substantially similar rule is anything that overlaps the old rule by 60 to 70 percent,” which leaves plenty of room for OSMRE to re-regulate surface coal mining in the future.

OSMRE considered eight other options before issuing SPR, which means there are other viable regulatory options available to protect natural resources from surface coal mining. However, if OSMRE were to proceed with one of these options or create a new option, legal challenges would be almost inevitable. Then courts would be faced with the question as to what is considered “substantially the same” as the overturned SPR. There is no indication of what this interpretation would be. One legal scholar identified seven possible interpretations to this clause, ranging from identical rules being acceptable if external conditions change to significantly altering the benefits and/or significantly lowering the costs from the original rule. Even members of the same political party cannot agree on what “substantially the same” means. Therefore, it is evident that “substantially the same” is ambiguous, and OSMRE would have the ability to challenge the meaning of it in the future if the agency wanted to issue a rule similar to SPR.

A major obstacle to this is summoning the resources and political will to challenge the substantially similar clause. However, due to the need for adequate protections for natural resources from the adverse effects of surface coal mining, a future OSMRE, especially a progressive one, might be willing to try it. Until any of these options, or other options not discussed, are adopted, there will continue to be ineffective and inadequate regulations of surface coal mining’s

134. Id. at 710.
136. See generally Environmental Impact Statement, supra note 88, at 2-1 (discussing the other options that the Department of the Interior considered).
137. See Finkel & Sullivan, supra note 132, at 734–40.
138. See, e.g., Lisa Gilbert & Amit Narang, Scrap the Congressional Review Act, REG. REV. (June 7, 2017), https://www.theregreview.org/2017/06/07/gilbert-narang-scrap-congressional-review-act/. Senator John McCain voted against a CRA resolution targeting methane waste regulations because he feared this CRA provision would have prevented the Department of the Interior from making improvements to the methane rule. Id. But, Senator Rob Portman interpreted this provision the opposite way, arguing that the Interior Department would be able to produce another rule that restricts methane waste. Id.
139. Lee, supra note 116.
harmful effects on waterways, fish, wildlife, and other natural resources.

V. CONCLUSION

The key question in addressing the need for adequate natural resource protections from surface coal mining is not whether responsibility for such action should rest exclusively with the federal government or the states. Rather, it is how the federal government and the states can share responsibility for addressing this issue. It is difficult to imagine that a federal law or regulation that assumed exclusive and broad authority over all surface coal mining activities would effectively resolve surface coal mining's adverse effects on natural resources. Due to varying mining practices, geography, resources, and other factors, states should have some flexibility in tailoring surface coal mining regulations to their specific situations. Because regulatory authority is already shared in many areas surrounding surface coal mining,¹⁴⁰ the federal government and the states should continue to share responsibility in addressing this issue moving forward.

However, it is evident that states are unwilling to address surface coal mining's adverse effects on natural resources under current regulations. Therefore, the best solution is for the federal government to enact new laws or regulations that provide federal guidance on how to adequately protect natural resources from surface coal mining's adverse effects while also ensuring states are acting with comparable vigor in addressing this issue. This approach will place the federal government in the dual role of both devising and implementing policy, while still vesting key responsibilities with the states. Regardless of how these responsibilities are shared between the federal government and the states, there needs to be a federal standard for adequate protections, and it is clear that current laws and regulations fail to set an effective federal standard to accomplish this goal.

While chances of achieving any progress on this issue in the near future are slim, conservationists and environmental protection advocates should remain optimistic. The coal industry, regardless of how regulated it is, is a dying industry, and the repeal of the Stream Protection Rule is not going to reverse the coal industry's decline. As society continues to focus more on environmental issues, citizens need to be more conscientious of their own effects on the environment and elect officials at all levels of the government that will advocate for a better environment.

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