S. HRG. 114–379

THE STREAM PROTECTION RULE: IMPACTS ON THE ENVIRONMENT AND IMPLICATIONS FOR ENDANGERED SPECIES ACT AND CLEAN WATER ACT IMPLEMENTATION

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

FEBRUARY 3, 2016

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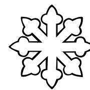

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THE STREAM PROTECTION RULE: IMPACTS ON THE ENVIRONMENT AND IMPLICATIONS FOR ENDANGERED SPECIES ACT AND CLEAN WATER ACT IMPLEMENTATION

WEDNESDAY, FEBRUARY 3, 2016

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The Committee met, pursuant to notice, at 9:35 a.m. in room 406, Dirksen Senate Office Building, Hon. James M. Inhofe (Chairman of the Committee) presiding.

Present: Senators Inhofe, Boxer, Barrasso, Capito, Boozman, Fischer, Sullivan, Cardin, Gillibrand, and Markey.

OPENING STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator INHOFE. The hearing will come to order.

We appreciate you and the witnesses on the second panel being here. I think we are going to have a bigger turnout in a few minutes.

Let's go ahead and get our opening statements out of the way, if that is all right, Senator Boxer.

Today's hearing is to examine the Department of Interior's Office of Surface Mining Stream Protection Rule and its nexus with implications to the Clean Water Act and the Endangered Species Act. I would also like to discuss the NEPA process for developing this rule. In particular OSM's failure to allow States a meaningful opportunity to participate in the NEPA process, even though they were cooperating agencies under NEPA.

This rule establishes the conditions a coal mining operation is going to have to meet to receive a permit under the Surface Mining Control and Reclamation Act, also known as SMCRA.

SMCRA includes provisions for protecting the environment. However, SMCRA also specifically says that it does not authorize duplicative Federal environmental regulation. And under SMCRA, in 24 authorized States, the State agency—not the Federal Government—makes coal mining permitting decisions.

Unfortunately, the rule that the Office of Surface Mining proposed just last July would establish new onerous conditions that duplicate or supersede existing Clean Water authorities of States and the Corps of Engineers, which I contend is an illegal power grab.

Under the Clean Water Act, States establish water quality standards. The so-called Stream Protection Act would override that authority and let OSM set new water quality standards for coal mining operations. These new standards are set at the whim of OSM without any of the notice and comment rulemaking required under the Clean Water Act and can be used to override State water quality certifications and the State coal mining permitting authorities. Again, it is a power grab.

Under the Clean Water Act, the Corps of Engineers issues permits to fill in streams. The Stream Protection Rule would allow OSM to override the Corps' authority by adding conditions to SMCRA permits over and above what the Corps requires in section 404 permits and by creating even more confusion over the reach of the Federal authority under the Clean Water Act, the issue that is being litigated as part of the WOTUS rule challenges. Again, a power grab.

Under the Endangered Species Act, the Fish and Wildlife Service lists threatened and endangered species. Under the Stream Protection Rule, States are required to meet new conditions that apply not only to listed species, but also species that Fish and Wildlife have proposed for listing, circumventing the notice and comment rulemaking process required for listing new species under the ESA. Now, even worse, the proposed rule would give Fish and Wildlife unprecedented veto authority over State permits. So that is what is all the way through this.

Under NEPA, cooperating agencies are supposed to be granted access to information and an opportunity to provide comments while an Environmental Impact Statement is being developed. Eleven States became cooperating agencies for the Environmental Impact Statement for this rule. However, OSM shut them out of the process, failing to provide any information to States since early 2011. As a result, OSM developed a rule for a State administered program without adequate State involvement.

The unauthorized provisions of this proposed rule will have a significant adverse effect on mining States. It will add so many layers of bureaucracy that mining permits will halt and even current permits could be reopened, causing severe economic impacts.

Now, I know this is true. I spent last Friday out north of Poteau, Oklahoma. That is a big mining area that we have historically. It has been there for many, many years. People don't think of Oklahoma as being a coal mining State, but what we have is people really hurting out there. It is a serious problem.

In comments Senator Capito filed on this proposed rule in September of last year, she noted that finalizing this rule would result in an annual loss in coal production valued at $14 billion to $20 billion and losses in Federal and State revenues of $4 billion to $5 billion a year.

The coal industry has already lost tens of thousands of jobs in the past few years. We have to be cautious to ensure we don't regulate into extinction one of the most important energy sources for this country, which I think is some people's intention.

So, this is the situation created by this proposed "Stream Protection Rule"—State water quality standards under the Clean Water Act will be superseded by new standards that OSM creates. The

Corps of Engineers' permits under section 404 of the Clean Water Act will be superseded by new conditions imposed by OSM. A permit that a State coal mining permitting authority wants to issue can be vetoed by the Fish and Wildlife Service based on impact to species that are not even listed under the Endangered Species Act.

All this Federal overreach is going to impose a hardship on coal miners and the States they live in.

I want to thank our witnesses for being here. Unfortunately, one of our witnesses, Director Todd Parfitt from Wyoming, he couldn't do it because of some weather issues they had up there, so I would ask unanimous consent that his statement be placed in the record. Thankfully, we have Mr. Larkin here with us today who was able to step in at the last minute, and I look forward to hearing from all of our witnesses.

Senator Boxer.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE,
U.S. SENATOR FROM THE STATE OF OKLAHOMA

Today's hearing is to examine the Department of the Interior Office of Surface Mining's Stream Protection Rule and its nexus with implications to the Clean Water Act and the Endangered Species Act. I would also like to discuss the NEPA process for developing this rule—in particular, OSM's failure to allow States a meaningful opportunity to participate in the NEPA process, even though they were cooperating agencies under NEPA.

This rule establishes the conditions a coal mining operation must meet to receive a permit under the Surface Mining Control and Reclamation Act—also known as SMCRA.

SMCRA includes provisions for protecting the environment. However, SMCRA also specifically says that it does not authorize duplicative Federal environmental regulation. And under SMCRA, in 24 authorized States, the State agency, not the Federal Government, makes coal mining permitting decisions.

Unfortunately, the rule that the Office of Surface Mining proposed last July would establish new onerous conditions that duplicate or supersede existing Clean Water Act authorities of States and the Corps of Engineers.

Under the Clean Water Act, States establish water quality standards. The so-called Stream Protection Rule would override that authority and let OSM set new water quality standards for coal mining operations. These new standards are set at the whim of OSM, without any of the notice and comment rulemaking required under the Clean Water Act and can be used to override State water quality certifications and State coal mining permitting authorities.

Under the Clean Water Act the Corps of Engineers issues permits to fill in streams. The so-called Stream Protection Rule would allow OSM to override the Corps' authority by adding conditions to SMCRA permits over and above what the Corps requires in a section 404 permit and by creating even more confusion over the reach of Federal authority under the Clean Water Act—the issue that is being litigated as part of the WOTUS rule challenges.

Under the Endangered Species Act, the Fish and Wildlife Service lists threatened and endangered species. Under the so-called Stream Protection Rule, States are required to meet new conditions that apply not only to listed species, but also species that FWS has proposed for listing, circumventing the notice and comment rulemaking process required for listing new species under the ESA. Even worse, the proposed rule would give FWS unprecedented veto authority over State permits.

Under NEPA, cooperating agencies are supposed to be granted access to information and an opportunity to provide comments while an Environmental Impact Statement is being developed. Eleven States became cooperating agencies for the EIS for this rule. However, OSM shut them out of the process, failing to provide any information to States since early 2011. As a result, OSM developed a rule for a State administered program without adequate State involvement.

The unauthorized provisions of this proposed rule will have a significant adverse effect on mining States. It will add so many layers of bureaucracy that mining permits will halt, and even current permits could be reopened, causing severe economic impacts. In comments she filed on this proposed rule in September of last year, Sen-

ator Capito noted that finalizing this rule would result in an annual loss in coal production valued at $14 billion to $20 billion and losses in Federal and State revenues of $4 billion to $5 billion a year.

The coal industry has already lost tens of thousands of jobs in the past few years. We must be cautious to ensure we don't regulate into extinction one of the most important energy sources for this country.

So, this is the situation created by this proposed "stream protection rule":

State water quality standards under the Clean Water Act will be superseded by new standards that OSM creates.

The Corps of Engineer's permits under section 404 of the Clean Water Act will be superseded by new conditions imposed by OSM.

A permit that a State coal mining permitting authority wants to issue can be vetoed by the Fish and Wildlife Service based on impact to species that are not even listed under the Endangered Species Act.

All this Federal overreach is going to impose severe hardship on coal miners and the States they live in.

I want to thank our witnesses for being here today. Unfortunately one of our witnesses, Director Todd Parfitt, was unable to make it to today's hearing due to weather issues. I ask unanimous consent that his statement be placed in the record. Thankfully, we have Mr. Larkin here with us today who was able to step in last minute. I look forward to hearing all of your testimonies.

[The prepared statement of Mr. Parfitt follows:]

WRITTEN TESTIMONY OF TODD PARFITT, DIRECTOR
WYOMING DEPARTMENT OF ENVIRNOMENTAL QUALITY

BEFORE
THE SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE
OVERSIGHT HEARING ON:

THE STREAM PROTECTION RULE: IMPACTS ON THE ENVIRONMENT AND IMPLICATIONS FOR ENDANGERED SPECIES ACT AND CLEAN WATER ACT IMPLEMENTATION

FEBRUARY 3, 2016

Good morning Chairman Inhofe, Ranking Member Boxer, and members of the Senate Environment and Public Works Committee. My name is Todd Parfitt. I am the Director of the Wyoming Department of Environmental Quality (WDEQ). I thank the committee for inviting the State of Wyoming to share our perspective on the development of the Proposed Stream Protection Rule by the Office of Surface Mining Reclamation and Enforcement (OSM). In short, we are deeply disappointed with the development of the Proposed Rule and the lack of engagement with the states in that process.

Before I provide further detail on those concerns, I want to provide some perspective on why this subject matter is important to Wyoming. Wyoming is home to Yellowstone National Park, Devil's Tower and many more special places. Our natural resources help make Wyoming a truly special destination. Our citizens and visitors expect these places to have world class environmental stewardship. Wyoming's abundant mineral resources provide its citizens and the State with the jobs and tax revenue necessary to thrive. In Wyoming, we manage our natural resources exceptionally well, providing for both environmental stewardship and energy production. As our governor, Matt Mead, has stated, "It is a false question to ask: Do we want energy production or environmental stewardship?" In Wyoming, we must and do have both.

Wyoming is the number one exporting state of British thermal units (BTU's) in the country, contributing 12% of all BTU's produced in the U.S. in 2013. Wyoming is also the number one

producer of coal in the country, mining 40% of the nation's production and delivering coal to over 30 states. Wyoming's energy leadership is matched by its leadership in establishing and enforcing strong environmental regulation and enforcement programs to protect the environment that is so important to each of us who call Wyoming home. Wyoming also coordinates on mine permitting with all appropriate federal agencies, including the US Fish and Wildlife Service for endangered species review and consultation.

Wyoming's dual interests in environmental stewardship and coal production is why the State has closely followed the development of the Stream Protection Rule from its inception. Wyoming supports reasonable, practicable and sensible efforts to improve stream protection. To that end, Wyoming was pleased when OSM reached out to states in 2010 extending an offer for us to become cooperating agencies in the National Environmental Policy Act (NEPA) process associated with the development of the Proposed Rule. In August 2010, the WDEQ entered into a Memorandum of Understanding (MOU) with OSM to provide meaningful and timely comments on the draft environmental impact statement (EIS) that OSM intended to prepare in support of the Stream Protection Rule. Nine other states participated as cooperating agencies.

The cooperating agency process provided OSM with an opportunity to take advantage of the wealth of knowledge that states have compiled over the past decades implementing robust surface mining control and reclamation programs. That wealth of knowledge had the potential to shape the development of a meaningful, appropriate and well-written EIS and Proposed Rule. Unfortunately, because of the unwillingness of OSM to effectively engage with the states, despite the cooperating agency MOU's, these opportunities were not realized.

Wyoming is not opposed to changes being made to the Stream Protection Rule. Wyoming supports regulations that protect our environment but only those that are reasonable, practicable, and sensible. What Wyoming is critical of is a Proposed Rule and process that is seriously flawed. OSM excluded states from the process, failed to recognize the regional differences that affect mining and reclamation, and is attempting to impose one-size-fits-all regulations on Wyoming based upon science related to Appalachia.

Wyoming is very familiar with the cooperating agency process. We have served as a cooperating agency on numerous activities with the Bureau of Land Management. This includes assisting in the

development of resource management plans and the development of environmental impact statements on large-scale projects. Wyoming has also served as a cooperating agency with the U.S. Forest Service and the U.S. Fish and Wildlife Service on several planning initiatives (most recently in partnership on sage grouse management), and also for the development of environmental impacts statements for large scale projects. We know and understand the process and are fully aware of the staff and resource commitment that must be made to be an effective contributing cooperating agency. Our past experiences have proven that federal agencies which actively participate in cooperating agency efforts end up with well-informed decision documents for federal, state and local government partners.

This is the type of relationship Wyoming expected when we entered into the cooperating agency MOU with OSM on August 24, 2010. Unfortunately, the OSM's cooperating agency process failed to meet the principles established in the MOU, in stark contrast to the processes Wyoming enjoyed with other federal agencies over the past few decades.

Initially, the process seemed to follow the spirit and intent of the MOU. OSM provided Wyoming the opportunity to review three draft chapters of the EIS, two in late 2010 and one in early 2011. OSM, however, provided minimal time to review those documents. Even though the review period was exceedingly short, Wyoming DEQ committed the necessary resources to review the documents and provided comments back to OSM, while still adhering to our other mandatory regulatory duties. Unfortunately, the initial review of those early chapters was the last involvement OSM allowed or provided to Wyoming.

Now, nearly five years later, OSM has issued a Proposed Rule, draft EIS and Regulatory Impact Statement (RIA) spanning over 2,200 pages that in their own words is substantially different than the pre-drafts the states reviewed nearly five years ago. Included are five new alternatives not seen or reviewed by the cooperating states. OSM did not engage states or share how or if it considered the states' comments and expertise. Wyoming has sent several letters to OSM, in addition to letters signed by all of the cooperating states, requesting that OSM re-engage in the cooperating agency process and reiterating our willingness to participate. OSM disregarded these repeated requests.

On April 26, 2015, OSM met with the cooperating agency states to update them on the status of the rule development. That meeting was simply a broad overview of the draft EIS and did not provide

any opportunity for cooperating agencies to provide input. Those in attendance were informed that the final draft EIS and Proposed Rule would look nothing like what states reviewed in 2010 and 2011. For example, OSM explained that it had a new contractor working on the documents and that the agency had added additional alternatives for consideration. Essentially, the states were told they would not recognize the draft EIS or Proposed Rule as published, but were assured that the documents represent "much better work."

Given OSM's failure to effectively engage with the states throughout the development process, eight of the ten cooperating states withdrew from the cooperating agency process in 2015. While tempted, Wyoming did not withdraw from its cooperating agency status at that time. However, Wyoming did send one last letter to OSM on May 22, 2015, expressing our serious disappointment with the process and our concerns that the states' views were being ignored. OSM finally replied to that letter on October 8, 2015. In the letter, OSM thanked Wyoming for our prior, valuable contributions to the draft EIS. The letter also stated that OSM values our continued participation in the process of developing a final EIS. Finally the letter extended an invitation to review draft responses to public comments received on the draft EIS and the Proposed Rule specific to our state and region. I find this to be a hollow gesture given the loss of trust experienced by Wyoming during the pre-draft process, including OSM's unwillingness to honor the MOU and engage with the states during the past five years.

Wyoming decided not to withdraw from the cooperating agency because we remain optimistic that OSM will realize the tremendous opportunity of honoring their commitment to cooperating states and withdraw the draft EIS and Proposed Rule. OSM should reengage with the states to develop a superior product than has been put forth. In addition, we were concerned that if all states pulled out of the cooperating agency process, states would potentially lose standing in any legal challenges that may arise out of the faulty NEPA process.

OSM's failure to engage Wyoming and the other cooperating states in the drafting process clearly violated the commitment by Secretary Salazar to the Western Governors' Association on April 15, 2011 that "all cooperating agencies will have an additional opportunity to review and comment on a Preliminary Draft EIS before it is published for public review and comment". For the record, the Draft EIS and the Proposed Rule were published by OSM without ever providing Wyoming or other state cooperating agencies the opportunity to review and comment on a Preliminary Draft EIS.

The process failed to comply with one of the basic principles of the Surface Mining Control and Reclamation Act of 1977. Public Law 95-87 (SMCRA) makes the following statement under TITLE I – STATEMENT OF FINDINGS AND POLICY, SEC. 101(F);

> "(f) because of the diversity in terrain, climate, biologic, chemical, and other physical conditions in areas subject to mining operations, the primary governmental responsibility for developing, authorizing, issuing, and enforcing regulations for surface mining and reclamation operations subject to this Act should rest with the States;" (emphasis added)

Turning to the comments Wyoming submitted on the proposed documents, we commend Assistant Secretary Janice Schneider for recently reaching out to Wyoming. She has expressed interest in making sure that she understands our comments on the Proposed Rule, and we have taken her up on the offer to discuss them. Open dialogue and exchange of information is what should have been occurring since the start of the process under the MOU. While we acknowledge the Assistant Secretary's efforts in this regard, it does not eliminate the need to withdraw the draft EIS and Proposed Rule and fully engage the states in a meaningful way. The development of the draft EIS and Proposed Rule occurred with no input from the states that have special expertise and jurisdiction in these matters. The two recent meetings with OSM and the Department of Interior have only been focused on specific areas and questions by OSM and the Department of Interior with no detailed discussions about the Proposed Rule, draft EIS, RIA or the other questions and concerns raised by Wyoming. Yes, Wyoming's comments are critical of the Proposed Rule, but they are critical for good reason.

The Proposed Rule makes no distinction between mining in Appalachia and mining in Wyoming even though the Proposed Rule would apply uniformly to all states. The Proposed Rule would establish regulations that do not reflect the specific environment and ecology of the west, are unnecessary, would greatly increase the cost to the Wyoming coal regulatory program, and in some cases would be impossible to implement or comply with. Review of the documents cited in the Proposed Rule, EIS and RIA also seems to demonstrate that the main sources of scientific information used to develop the Proposed Rule were directly referencing Appalachia. The vast majority of the cited documents directly related to Appalachia and only a very small number of cited documents reference the West, much less Wyoming. Since the majority of coal production is

in the West and mining in the West is vastly different from mining in Appalachia, it is concerning that OSM used minimal science related to the West to develop the Proposed Rule. The result is a rule that applies Appalachian standards to Wyoming without a scientific basis for doing so. This again is inconsistent with the language of SMCRA that recognized "the diversity of terrain, climate, biologic, chemical and other physical conditions in areas subject to mining operations".

OSM fails to recognize Wyoming's primacy in implementing its federally-delegated programs, and in fact seems committed to eroding Wyoming's rights under those programs. The fact that OSM failed to engage Wyoming as stipulated in the MOU or the development process can only be interpreted as disregard for the fact that Wyoming is the delegated regulatory authority under SMCRA. OSM's failure to engage Wyoming or the other coal programs dismisses the expertise and best practices developed by states. This failure to recognize Wyoming's primacy is exemplified by the language establishing water quality standards under the Proposed Rule for areas already delegated to states. This represents a clear attempt to duplicate existing regulatory jurisdiction and state authority under the Clean Water Act. The incorporation of the new Clean Water Rule – the implementation of which has been stayed by two federal courts – into the Proposed Rule also appears to be an effort to impose new restrictions on state programs under SMCRA, such as protection of ephemeral streams. Authority for stream protection, including all classes of streams, already rests with Wyoming for Wyoming waters under state law, and is augmented by Wyoming's additional Clean Water Act program authorities.

In our most recent conversation with the Assistant Secretary and her team we noted that the Proposed Rule, EIS and RIA were so large that, even in the 90-day comment period, Wyoming was not provided with sufficient time to go through much of the public documents. One area that we were unable to review was the reference documents cited in the Proposed Rule, EIS and RIA. At our last meeting with the Assistant Secretary we requested hyperlinks to, or digital copies of, all of the documents so that we can review them. We were told that those documents were cited in the proposed documents and could be accessed there. We then attempted to access the documents using the citations in the documents. The results of this investigation were concerning. Many of the scientific articles cited can only be accessed by subscribing to the journals that they were published in. That clearly represents a cost and time implication for states and anyone else attempting to review the documents during the short comment period. Numerous documents were cited with URL links to access the material where those URL links are no longer valid. There were supportive

citations for newspaper articles which are clearly not peer reviewed. In addition, other questionable reports were also cited. OSM did not seek information from Wyoming even though we are the delegated regulatory authority under SMCRA. As a result OSM ignored the experience, scientific knowledge and best practices that directly relate to Wyoming and western coal mining.

One of the Proposed Rule sections establishes new standards for blasting. Blasting had never been previously noted as an area to be addressed in the Stream Protection Rule so the inclusion was a surprise. As a threshold matter, we understand that OSM is currently rewriting its stand-alone blasting regulations under SMCRA, without input – at least at this stage – from the delegated state regulatory programs. We sincerely hope that OSM is not repeating its prior failure to engage with the states while reworking the blasting or any other regulations. Regarding the inclusion of the blasting provisions in the Stream Protection Rule, we were recently informed by OSM that the blasting rule language was a "printer error" in the Proposed Rule and should not have been included. This item represents a significant procedural problem that does little to instill confidence in the Proposed Rule. OSM was asked if they were aware of any additional "printer errors". I was surprised by the response which was that Wyoming should let OSM know of any additional printer errors. The obvious question is how would Wyoming know since OSM is in charge of the document preparation? Since OSM had not engaged Wyoming throughout the process we would have no knowledge of OSM's intent. The proposed blasting provisions, to our knowledge, have not been removed from the Proposed Rule, as no public notification of the error has been provided by OSM.

To emphasize the long running frustration with the OSM process, I refer you to the testimony of the prior WDEQ Director John Corra before the House Energy and Mineral Resources Subcommittee on September 26, 2011. A copy of his testimony is attached for reference. Among the points he raised were:

- "The OSM has used a court order and an agreement with other federal agencies that were aimed at tackling a problem in Appalachia as an excuse to impose unnecessary and costly over regulation across all coal mining states."

- "We are unaware of any objective data, scientific or otherwise, that supports this level of change to SMCRA."

These concerns, now more than four years old, are unchanged. Wyoming prepared extensive comments on the Proposed Rule, EIS, and RIA, and simply cannot support the Proposed Rule as written. Our cover letter transmitting those comments to OSM is attached for your reference. I'll highlight a few of our main concerns here:

- OSM has undertaken a comprehensive rewrite of the core regulations implementing SMCRA, and has not limited itself to focusing on stream protection.

- The Proposed Rule is a one-size-fits-all regulation that imposes nationwide standards without consideration for the fundamental regulatory, environmental, ecological or economic differences amongst the states.

- The Proposed Rule fails to consider Wyoming's regulatory program and the best practices, including award-winning reclamation techniques, which our regulatory experts have developed over several decades of running the largest surface coal mining program in the country.

- The Proposed Rule exceeds OSM's statutory authority and infringes on the authority and ability of states to implement SMCRA.

- The RIA grossly underestimates the financial impact of implementing the new standards. The RIA estimates that the total impact on regulatory agencies in the Rocky Mountain Region (CO, WY, MT, ND), for example, to be $29,000 per year. For Wyoming alone, we estimate the increased cost to be closer to $550,000 per year.

- The RIA grossly underestimates the impact of the Proposed Rule on Wyoming and federal tax revenue, understating that impact by over $1.3 million.

- The Proposed Rule imposes extensive monitoring and reclamation requirements without sound scientific justification.

Wyoming has recently written to Assistant Secretary Schneider following our last discussions to once again express our frustrations and concerns regarding the Proposed Rule and the process that

brought us to this point. In summary, the failure to engage cooperating agencies throughout this process is reflected in the poor quality of the Proposed Rule and inaccuracies in the draft EIS and RIA. Wyoming does not believe that the Proposed Rule, draft EIS or RIA can be modified, amended, or changed to overcome their many problems through the public comment process. The only reasonable and logical decision is to withdraw the rule and work with the states, regulated industry and other members of the public to put forth a more appropriate proposal.

Wyoming remains willing to commit staff time and resources to fully engage in a meaningful cooperative agency process. If the new direction articulated by the Assistant Secretary to establish open, meaningful exchanges of information with the states, allowing OSM to benefit from the strong experience and best practices of states like Wyoming, is serious, OSM should pull back the Proposed Rule and work directly with the states to develop a reasonable, practicable and sensible rule. This would move the process in the direction envisioned by SMCRA, collaborative partnership led by the special expertise of the states. I ask this committee for any help that it may provide in securing this outcome.

Thank you for the opportunity to provide Wyoming's perspective on these important matters. I would be happy to answer any questions that you may have.

OPENING STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator BOXER. Thanks so much.

Mr. Chairman, could I have an additional minute, as you did?

Senator INHOFE. Sure.

Senator BOXER. So we have 6 minutes on the clock. Thanks. Because this is really important. Today the majority have decided to hold a hearing on the Department of the Interior's proposed Stream Protection Rule. Now, the proposed rule is going to revise 30-year-old regulations based on significant scientific advances on the impacts of surface coal mining on human health. That is important, human health, and the environment.

Now, coal mining regulations under the Surface Mining Control and Reclamation Act, that generally falls under another committee's jurisdiction, but I appreciate the fact that my chairman, who I respect and admire, feels there are implications in our jurisdiction, so we are having this hearing. And I am glad, in a sense, that we are because I have a lot to say about it.

There is a growing body of peer reviewed science that shows that people living downstream from coal mines face a greater risk of cancer, birth defects and premature death. Let me say it again. We are not just talking about some problem far from Earth. A growing body of peer reviewed science shows people living downstream from coal mines face a greater risk of cancer, birth defects, and premature deaths. We have a witness who will testify to that.

So what does the majority want to do? It is clear. They want to disrupt a rule that is going to protect the people of, particularly, Appalachia. The Stream Protection Rule will place limits on the dumping of mine waste in headwater streams and mountaintop removal coal mines, one of the most destructive mining practices used today.

This practice involves literally cutting the tops off of mountains and dumping the excess rock and soil into headwater streams that are critical for flood control, water quality, and the health of some of the Nation's most precious ecosystems. This isn't made up, this is factual. Mountaintop removal coal mining has already destroyed more than 500 mountains, buried more than 2,000 miles of headwater streams, and polluted thousands of miles of downstream surface waters.

And the mining waste associated with these sites can include a host of toxic chemicals. Let's hear what these chemicals are. I am sure you would love to drink a glass of water with these chemicals in them: selenium, arsenic, lead. How about giving it out to my colleagues here? None of them would drink that, because these toxins can leach into streams and rivers, severely degrading water quality.

For the first time, the proposed Stream Protection Rule coal mining companies to collect baseline data on water quality and require mining companies to monitor streams during mining and reclamation to ensure that downstream waters are not harmed.

Having this information is critical for affected citizens to know if their sources of drinking water are being polluted. We just faced the Flint, Michigan, travesty, tragedy—whatever you want to call it, either one of those words. Don't you think the people here have

the right to know what is in their water? You would if it was your grandkid. I certainly would if it was mine. And I certainly feel it is fair to the people there to know what toxins are in their drinking water.

So what does this Environment Committee do on the heels of Flint? First, we pass an amendment last time that says, oh, you can take pesticides and spray them on water sources that are for drinking water; sure, you don't need a permit. They passed here. They put it in the Sportsmen's Act. In the base of the Sportsmen's Act it says fishing tackle that has lead can never be regulated under TSCA. So they have done those two things. And today is another wonderful thing this Environment Committee is doing. My friend, he and I, I hope we can get back to infrastructure issues, because on that we work so well.

Senator INHOFE. WRDA is coming up.

Senator BOXER. WRDA is coming up, and it makes me so happy. But in the meantime, here we go. On the heels of Flint, yet another move by this so-called Environment Committee to say that let's disrupt a rule.

Now, the Department of Interior is doing the right thing—regardless of what I think we are going to hear—to modernize its mining rules, and we are going to say the coal industry has to be consistent with national standards of drinking water protection. The poisoning, again, by lead of children in Flint has shaken the Nation. We can laugh all we want. This is the time for us to protect the waters that our kids drink, not to just say, oh, let's just walk away from this rule that is going to strengthen the power of the community to know what they are drinking. So stopping the Stream Protection Rule is not right.

Now, we are going to hear from the people of the community. I am so glad we have that witness. And here is the deal. No rule is perfect. I am sure this one isn't perfect. I have heard from environmental groups and health organizations that think this is a weak sister of a rule; it is not good. And then we have the other side that says forget about it, we don't need any rule, this is just perfect. So obviously there is room for us to work together.

We can craft something that is going to make sense. But to disrupt this rule as we are looking at the poor people of Flint and what this is costing them in brain damage, in money, and in fear, to disrupt a rule that is protective of the people I think is the wrong thing to do.

Thank you.

Senator INHOFE. Thank you, Senator Boxer.

Mr. Pizarchik, you are recognized for your opening statement.

STATEMENT OF JOSEPH PIZARCHIK, DIRECTOR, OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT, U.S. DEPARTMENT OF THE INTERIOR

Mr. PIZARCHIK. Thank you, Chairman Inhofe, Ranking Member Boxer, and other members of the Committee for the opportunity to be here today. I am here to testify how the proposed Stream Protection Rule complements the Clean Water Act and Endangered Species Act and fills the water protection gaps as required by the Surface Mining Control and Reclamation Act.

The proposed Stream Protection Rule includes reasonable and straightforward reforms to modernize 30-plus-year-old coal mining rules. We recognize that coal mining and coal-fired electricity production will continue to be a part of our energy mix for decades. The proposed rule incorporates current science, technology, and modern mining practices while also safeguarding communities and protecting our streams from the long-term effects of pollution and environmental degradation that endanger public health and undermine the future economic viability of coal country communities.

The proposed rule was available for public review and then comment for over 3 months. We held six public hearings, extended the public comment period, and received more than 94,000 comments, adding to the more than 50,000 comments previously provided by States and other stakeholders.

We have learned a great deal over the past three decades about the impacts of coal mining and how to avoid or minimize those impacts. The final rule will strike an appropriate balance between protecting our water and the Nation's need for coal. The rule will provide greater regulatory certainty to the mining industry; it will improve consistency with the Endangered Species Act and promote coordination and cooperation with the agencies that implement the Clean Water Act.

It is important to note that Congress clearly delegated protection of the waters of the United States to the Environmental Protection Agency and also provided the Army Corps of Engineers a role to play when fill will be placed in a stream.

It is our expectation that the proposed rule, once finalized, will fill regulatory gaps through a more complete implementation of our legal obligations under SMCRA. Our rules to fulfill the legal requirements of SMCRA will complement, and not conflict with, the Clean Water Act requirements.

SMCRA specifically requires regulatory authorities to protect water resources during coal mining, and these protections go beyond the protections that are provided by the Clean Water Act. Most notably, the Surface Mining Act requires coal operators to minimize disturbances to the prevailing hydrologic balance in the permit area and to prevent material damage to the hydrologic balance outside the permit area.

It is also important to note that we are not changing our longstanding rules that require mine operators to comply with all applicable Clean Water Act requirements. The proposed rule seeks to strike the right balance between fulfilling our statutory obligations while providing the appropriate deference to Clean Water Act regulatory authorities to fulfill their duties. The final SPR will do so in a complementary and effective manner.

With regard to the Endangered Species Act, the proposed rule would codify the existing process contained in the 1996 biological opinion where coal mining may adversely affect species listed or threatened as endangered. These provisions will ensure that the incidental take coverage provided by the 1996 bi-op is effective for the State regulator and the mine operator when the permit is issued.

Based on comments we received, the final rule will likely include changes and modifications to further clarify and make it easier for

people to understand there are no conflicts with the Clean Water Act or the Endangered Species Act.

OSMRE's analysis and outreach to stakeholders identified seven key areas for improvement to fulfill the requirements of the law. They include a better understanding of baseline environmental conditions at mining sites; improved monitoring during mining and reclamation; clarity on what constitutes material damage to the hydrologic balance outside the permit area; and enhanced material handling and restoration requirements designed to take advantage of the advances over the last 30 years, which will enable responsible operators and regulators to better protect people and their water from the adverse effects of coal mining; the proposed rule would protect several thousand miles of stream.

The costs contained in the draft Regulatory Impact Analysis compared to the industry total revenues are a fraction of those. The proposed rule is what Americans expect from their Government, a modern and balanced approach to energy development that protects their water. It provides coalfield communities an economic future. The proposed Stream Protection Rule provides State regulators the flexibility to tailor their protections to individual mines or regions. The rule will reduce conflicts, reduce costs, enhance coordination among regulators, and provide for a more effective implementation of the Surface Mining Act, the Clean Water Act, and the Endangered Species Act.

Thank you.

[The prepared statement of Mr. Pizarchik follows:]

STATEMENT OF
JOSEPH G. PIZARCHIK, DIRECTOR
OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT
U.S. DEPARTMENT OF THE INTERIOR

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE

ON THE
IMPLICATIONS OF THE PROPOSED STREAM PROTECTION RULE

FEBRUARY 3, 2016

Chairman Inhofe and members of the committee, thank you for the opportunity to testify during this hearing today on the proposed Stream Protection Rule (SPR).

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 the 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 greater 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 would strike 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 rule 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, the 2008 rule 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. The 2008 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 February 20, 2014, the court vacated the 2008 rule because the Office of Surface Mining Reclamation and Enforcement's (OSMRE) "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 (ESA). *Nat'l Parks Conservation Ass'n v. Jewell*, No. 09-cv-115, 2014 U.S. Dist. LEXIS 152383, at *13-*14 (D.D.C. Feb. 20, 2014) (*NPCA*). Given the court's ruling in *NPCA*, the district court determined that "there is no further relief that the court can grant" in the earlier-filed challenge to the 2008 rule brought by Coal River Mountain Watch and dismissed that case. *Coal River Mountain Watch v. Jewell*, No. 08-2212, Memorandum Decision and Order of Dismissal (D.D.C. Feb. 20, 2014).

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 pre-2008 rules are currently in effect and the SPR proposed on July 27, 2015, uses those rules as the baseline.

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 SPR 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." 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.

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 require that the baseline data 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 document 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 during 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 periodically 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 proposed rule also would require that the regulatory authority evaluate the monitoring data as part of the review of any application for bond release.

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.

Seventh, the proposed rule would improve procedures to protect threatened and endangered species and designated critical habitat under the ESA. It would add provisions and procedures for protection of species proposed for listing as threatened or endangered under the ESA and expand provisions concerning enhancement of fish and wildlife in general. 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.

After proposing the rule and holding six public hearings and granting an extension for public review, we received helpful feedback regarding the Clean Water Act (CWA) and the ESA. It is important to emphasize that Congress clearly delegated protection of the Nation's water to the Environmental Protection Agency (EPA), prior to the enactment of SMCRA, and included protection of uses from both point and non-point sources as embodied in the Clean Water Act. (CWA Section 101(d), 102(a), 101(a)(7)). Moreover, Congress noted that, "the CWA is hardly silent regarding point and nonpoint sources of water pollution; rather, the CWA includes broad and deliberate provisions affecting all navigable waters, including those in mining areas." We are confident that our proposed rule would not improperly create conflicts or duplicate the requirements of the Clean Water Act.

Our expectation is that our proposed rule, once finalized, will enable us to use our regulatory authority to fill regulatory gaps in order to better accomplish our statutory directives. These provisions legitimately fit within the context of SMCRA authority and complement, and do not conflict with, CWA requirements. SMCRA, a later enacted statute, specifically provides for regulatory authorities to regulate coal mining with regard to water resources beyond that provided in the CWA. Most notably, SMCRA requires coal operations to 1) minimize disturbances to the prevailing hydrologic balance within the permit area and 2) prevent material damage to the hydrologic balance outside the permit area-two critical components of the proposed rule.

Again, it is important to emphasize that we are not changing our longstanding position that mining operations must comply with all applicable standards of the CWA, including both effluent limits set by NPDES permits and water quality standards. The Bureau's experience demonstrates that it takes more than the standard SMCRA inspection, often in narrative form, to identify a violation of water quality. The proposed rule seeks to strike the right balance between upholding our regulatory obligations to ensure adequate water quality while providing appropriate deference to regulatory authorities to conduct their duties to ensure cost effective compliance.

On September 24, 1996, the U.S. Fish & Wildlife Service (Service) issued a Biological Opinion and Conference Report (referred to herein as the "1996 biological opinion") to OSMRE on the continuation and approval and conduct of surface coal mining and reclamation operations under State and Federal regulatory programs adopted pursuant to Title V of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) where such operations may adversely affect species listed as threatened or endangered or designated critical habitat under the ESA. The Incidental Take Statement (ITS) in the 1996 biological opinion exempted OSMRE or a State Regulatory Authority from the prohibitions of Section 9 of the ESA if it complied with the terms and conditions included in the ITS.

The proposed changes to the SPR are designed, in part, to improve the coordination process between state regulatory authorities and the U.S. Fish & Wildlife Service (Service). OSMRE believes that these changes will ensure compliance with SMCRA and achievement of OSMRE's requirements under the ESA. Many of the changes are simply codification of certain terms and conditions of the 1996 biological opinion. These provisions are intended to ensure that the incidental take coverage provided by the 1996 biological opinion is effective for the state regulatory authority and mine operator when the permit is issued. To this end, OSMRE is preparing a biological assessment for the proposed SPR, which will be provided to the Service to initiate formal Section 7 consultation on the final rule. OSMRE and the Service anticipate that a new biological opinion will be issued as a result of this consultation.

The feedback that we received and are still evaluating regarding the CWA and ESA is instructive and will likely lead to us making appropriate modifications to the final rule in order to further clarify and ensure that there are no conflicts with the CWA and ESA and to improve coordination with CWA authorities, a process that is further enhanced through the interagency regulatory review process that the proposed rule has undergone and that the final rule will also undergo.

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-year 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 estimates 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.

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.

In response to our proposed SPR, Draft Environmental Impact Statement and Draft RIA, we received over 94,000 comments. Many of the comments were detailed and thoughtful. We anticipate that the final rule will benefit from changes made in response to these comments while still meeting the overall goal of updating our 30-year-old regulations in a reasonable and straightforward manner in order to avoid or minimize impacts on surface water, groundwater, fish, wildlife, and other natural resources. Once finalized,

our regulations will be updated so as to keep 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.

The SPR would 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. The proposed rule also provides greater regulatory certainty to the coal mining industry.

Thank you for the opportunity to appear before this committee today.

Senator INHOFE. Mr. Pizarchik, section 702 of SMCRA says that you have no authority to supersede—reading out of the statute now—amend, or modify any other Federal law, including laws relating to water quality. You just heard my opening statement. I mentioned three specific areas how the Stream Protection Rule would expand the Federal authority to do exactly what the law says not to do. Three things: by superseding State authority of water quality standards under section 303, by superseding the Corps' authority to issue permits to fill in streams under 404, and by expanding the Fish and Wildlife authority under the Endangered Species Act.

Now, I am going to ask you this for the record, because I used the rest of my time by verbalizing it. So the question I am going to ask you is, do you claim that your rule won't have these effects, and how would you claim that? That would be for the record.

Farrell Cooper, a mining company in Oklahoma, I was there last Friday. I think quite often the regulators here who are usurping more powers from State and from local government and from other departments, if they just go out and see the people out there. Half of Farrell Cooper right now, they are unemployed already as a result of what is anticipated from this. Despite the fact that the State controls its own surface, nonetheless, that is happening.

Now, we talked about this issue before. You claim that they haven't appropriately done reclamation. But I can tell you that the reclamation is good. The Oklahoma Department of Mines agrees with me and Farrell Cooper, and your own Department of Interior Office of Hearings and Appeals and the courts agree with me and Farrell Cooper, and they disagree with your interpretation of the law. The company spent millions of dollars fighting your accusations in multiple lawsuits, and in the process they have had to lay off half of their work force, and these are good paying jobs.

Now you are trying to bypass the courts and win those lawsuits with the regulations that we are talking about today, which would overturn 35 years of legal precedence relating to how reclamation is done.

I would like to ask you why don't we just resolve this issue in Federal court? Would you be willing—would you agree to just support moving the case to the Federal District Court so a fair trial with a qualified judge could be heard? What do you think?

Mr. PIZARCHIK. Senator, I appreciated when we visited the Rock Island mine together summer before last to look at the reclamation that the Arkansan Mining Company did and how it did not restore the land to AOC, to the detriment of that farmer with those 45-foot spoil piles and 100-foot deep water filled impoundments. And you are right, there are three litigation cases out there. I can't comment on the—it is Department policy not to comment on litigation, and we would certainly entertain what you are saying. I would have to take that back to the Department, talk with our lawyers and talk with the Department of Justice because you are right, two of those cases where the court ruled in accordance with what you said; the third case actually agrees with us, and that one is still being briefed, and they are all under appeal, and we will have to see where the courts go.

Senator INHOFE. In terms of fulfilling this request, you would consider doing this? You say take it to the appropriate people. Who are they?

Mr. PIZARCHIK. Senator, I can't make that decision here; I will need to talk to our lawyers and everybody else. I believe we ought to allow the courts to continue to fulfill their duties in accordance with the law; that is the way it is set up. There are three appeals before them, and I think it is appropriate for them to go through that process. As I understand the law, once that decision is made, there would be opportunities for appeal to a higher level court. So I think it would be premature to short circuit the current administrative and legal process.

Senator INHOFE. So your answer to that question is no, in terms of doing it now?

Mr. PIZARCHIK. I think we should allow the process to continue in the courts.

Senator INHOFE. All right. Now, let me ask you is there anything ambiguous about this language in 702? Let me just read it from the statute. It says "Nothing in this chapter shall be construed as superseding, amending, modifying, or reopening the Mining and Minerals Policy Act of 1970, the National Environmental Policy Act of 1969, or any of the following Acts," and then it lists all eight of the acts that fall under this category. Is that ambiguous?

Mr. PIZARCHIK. I do not find it ambiguous, no.

Senator INHOFE. OK. I want staff to take this over and give it to Mr. Pizarchik. One of the problems we have is getting information from the bureaucracies and making requests, even in those that are in the jurisdiction of this committee. In this case, the documents that we have had, all documents, we are going to request in writing that within 2 weeks you send to us—now, we have made this request before, my junior Senator and I have both made the request in June and September, and we haven't heard back yet. So the request is for all documents including, but not limited to, e-mails, memoranda, legal analysis concerning communications between the OSM reclamation and enforcement, including yourself, and the Office of Solicitor regarding the overturn of the decision in November 2010 and the issuance of INE–35. No. 2, all documents including, but not limited to, e-mails, memos, and legal analysis concerning the communications to or from Director Pizarchik, yourself, about the INE–26, including February 2015 and the decision to rescind INE–26.

Now, will you commit to getting this information for us, for this Committee?

Mr. PIZARCHIK. Senator, I am aware of those document requests, and it is my understanding that the Department has already provided several thousand pages of documents to the Committee and that we are working to continue to provide comments and to supplement those responses, and I anticipate that we will be providing supplemental responses, including additional responsive documents, very shortly. I would have to get back to you regarding any specific details on that, but we are continuing to process the requests.

Senator INHOFE. Well, the requests, though, are very specific. What we have received is not specific, so we thought we would just

be more specific. I am just asking for you to stay to us you will supply us this information within 2 weeks.

Mr. PIZARCHIK. Senator, I have not read these comments.

Senator INHOFE. I just read them to you.

Mr. PIZARCHIK. Well, I would be happy to take them back to the Department for evaluation so that we can provide an appropriate response.

Senator INHOFE. Well, you have had the request from myself, several others, including my junior Senator, for months now, so you have had plenty of time to look over. In fact, the very wording that you are looking at there you have seen before. So I ask you a third time will you give us this information in 2 weeks?

Mr. PIZARCHIK. We will continue to process the document requests and provide the appropriate response documents as soon as we can. We have already provided several thousand pages and we will continue to do so.

Senator INHOFE. Senator Boxer.

Senator BOXER. Thanks. Again I would ask that I have 2 minutes more.

Senator INHOFE. I was 1 minute over.

Senator BOXER. You were 2:43 over.

Senator INHOFE. You can have 2:44, how is that?

Senator BOXER. OK, 2:44.

Senator SULLIVAN. Do we all get 2 minutes more?

Senator BOXER. No. This is our thing.

Senator INHOFE. Well, no, no. In that unanimous consent, the next two that will be heard will be Senator Markey and Senator Sullivan. I ask unanimous consent that they also be given 7 minutes instead of 5 minutes.

Senator BOXER. Absolutely.

Senator INHOFE. OK. No objection. Then we go back to 5 minutes.

Senator BOXER. I want to hear from all of them at great length. All right.

Senator SULLIVAN. We can do it in 5.

Senator BOXER. I can't, because there is so much to talk about, there really is.

Now, just in general I want to make a comment, that the majority party here, with all due respect, this is their philosophy, they demonize anybody in the Federal Government, my view, who is trying to help protect the environment and public health. They demonize. And I will tell you why it is wrong. But I will wait until they are finished.

[Pause.]

Senator INHOFE. Go ahead.

Senator BOXER. I waited.

OK, I am back.

Senator INHOFE. Oh, good.

Senator BOXER. You so don't want to hear this.

The majority demonizes any Federal agency that tries to help; it doesn't matter if it is the EPA, they demonize. It doesn't matter if it is you, sir. Do not take what they throw at you personally. They don't mean it personally at all. They just don't want any involvement. And here is what is so odd.

I remember the BP oil spill. It went on and on. Senator Markey and I, and I remember Senator Nelson, we were so frustrated, along with the Senators from Louisiana, both Republican and Democrat, because no one could seem to come up with the answer. You know who did? The Secretary of the Interior, Steven Chu. Because he got in there, he took charge because he was very smart and knew. He happened to be from the Federal Government, and he found out there was a technology that needed to be used to really look at this spill in a better way. Once they figured it out, they stopped it.

Now, we have a situation in California right now. I am so grateful to my colleagues because we now set up a task force headed by the DOE to come in and look. So why do we always have to demonize somebody?

The fact is wisdom does not reside with the Federal Government, with the State government, with the local government, with anybody on this panel. All wisdom doesn't reside. We all have some good ideas. So when we get together and work together, it is fine.

Now, it is my understanding, sir, that you took a lot of input from the public as you put this together. Is that correct? Could you describe the process a bit?

Mr. PIZARCHIK. Yes, Senator, we did. We started off with an advanced notice of proposed rulemaking, which was preceded by some stakeholder outreach sessions. We met. I had 15 different meetings with industry, environmental community, citizens. Now, we have the advanced notice of proposed rulemaking with public comments on that. We also did two public scoping sessions, one where we had nine public meetings across the country. Those processes generated well in excess of 50,000 comments. We shared drafts of the EIA with the cooperating agencies and received many, many comments from the States, numerous comments that were very helpful and are reflected in the final rule. And we proposed the rule and we received about 94,000 more comments in addition to what we have.

The process that we had done has been unprecedented for this agency, and the amount of comments we have had is far in excess of any rulemaking that we have done in the past.

Senator BOXER. And sir, isn't it true that your rule has been criticized by the left and the right? In other words, people who want to see it be more stringent and those who say you are duplicative and you are surpassing the ESA, as my chairman has said? Isn't it true that those are the comments you received?

Mr. PIZARCHIK. Yes, Senator, they are.

Senator BOXER. I think that is an important point. You did something right. Everybody is mad at you. You know, you tried to find some ground that you could defend and that you could truly say is a compromise, and I thank you for that.

Now, in your job, you are the Director of the Office of Surface Mining Reclamation and Enforcement. Isn't it true that you are required under the law to protect the environment? Isn't that actually in the law?

Mr. PIZARCHIK. Yes, Senator. If you look at the Surface Mining Act, there are numerous provisions in it that talk about the purposes of the law and what I am supposed to do. It is protecting the people and the environment from the adverse effects of coal min-

ing, preventing the pollution from coal mining. And we have numerous provisions. I also have to strike a balance with coal. But the law is an environmental protection and public protection law.

Senator BOXER. Fine. This is important, because when you get criticized by my friends here, they are my friends, I love them dearly. When you get criticized by them, you have to understand what they are asking you to do, in my opinion, is to walk away from your responsibility. And isn't it true, sir, if you did that, wouldn't you be the subject of lawsuits? Let's say somebody living in Appalachia got cancer, and it was a cluster, and it came from— whether it was arsenic or lead, there were problems, you were sued. Wouldn't you have to mount a pretty good defense if you did nothing, if you walked away from this challenge? We all know the challenge exists. Have you not seen the health impacts?

Mr. PIZARCHIK. There have been a lot of studies documenting health impacts, and we have been working to try to get a review of those by the National Academy of Sciences. And yes, I probably would be sued. Actually, I get sued all the time for just about everything we did, so it would not be unusual. But it would also be an abdication of my duty if I did not promulgate rules that carry out and fully implement the statute, and that is what I am trying to do.

Senator BOXER. Well, thank you. And I compliment you from the bottom of my heart, because we have seen in Flint, from the State government there, and even the EPA that, yes, told Flint but didn't do enough, in my view. We have seen what happens when people in positions such as yours get cold feet and back away, and it isn't a pretty story. And I am so pleased that you have done what you have done and that you are standing up for what you have done, and that you have listened to all the voices. And I know you look at the economics of it as well. The fact is the economics that were cited by my friend and that will be cited from my friend from West Virginia, and I have seen those surveys, those studies, they have been refuted, and I think our witness here is going to show that those studies are not accurate.

The bottom line is people have to be kept safe.

Now, let me ask you a couple of other questions. When you make this rule, you look at the health impacts, you look at the economic impacts, you look at everything, is that right?

Mr. PIZARCHIK. We look at, yes, mostly those. Primarily, under this rule, it is about protecting the water for people so that water is included, the critters aren't poisoned.

Senator BOXER. Let's go there. Your function in this rule is to protect people from drinking water that could harm them, is that correct?

Mr. PIZARCHIK. That is one of the roles of it. Also protecting the environment is another, yes.

Senator BOXER. Yes. Well, protecting the environment means that you have fish in there that aren't contaminated, is that correct?

Mr. PIZARCHIK. Yes.

Senator BOXER. Sir, I just want to say to you, regardless of what you hear, you just stand up and you continue to do that. And when people look at you and say, sir, you shouldn't do this, just tell them

to look at those families in Flint. This is what happens when we don't do our job. And this committee, the Environment Committee, should not be questioning this rule; we should be working to make it workable.

Thank you.

Senator INHOFE. Thank you, Senator Boxer.

Senator Sullivan.

Senator SULLIVAN. Thank you, Mr. Chairman.

And thank you, Director, for appearing today. I always feel the need to start my comments off with a little prefatory remark. I have the utmost respect for the Ranking Member here. We all want clean water. We all want clean air. We all want healthy kids. And I actually think that States are pretty good at this. I think my State, for example, Alaska, has the cleanest water, cleanest air, best managed fish and wildlife certainly in America; cleaner than California, cleaner than Delaware, cleaner than New Jersey. And it is State officials that do that. So we all want that.

But what is always surprising to me on this Committee is that we also need agencies to follow the law. You have everybody from Laurence Tribe saying burning the Constitution should not be part of our energy and environmental responsibilities. And I have a lot of experience with SMCRA and what we call ASMCRA in Alaska, which is the State version of SMCRA, but this is classic Obama administration action, and you guys are all part of it. You can't pass a law, so you break a law with a regulation. The States that are impacted are almost 100 percent against it, which you will get sued on this one, trust me. And then you say it is driven by science, and I am going to get into that, because with regard to Alaska you didn't cite one scientific study that relates to my State, one of the biggest coal reserves in the country, when it is really a power grab and politics. Thousands of new pages of regs.

Then there is this claim that it is partisan.

Mr. Chairman, for the record, I would like to submit the State of Alaska's letter from our Governor, who is an Independent, our lieutenant Governor, who is a Democrat, who are fully, fully opposed to this rule.

Senator INHOFE. Without objection.

[The referenced information follows:]

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October 23, 2015

The Honorable Joseph G. Pizarchik
Director
Office of Surface Mining Reclamation and Enforcement
1941 Constitution Avenue NW
Washington, DC 20240

Re: Alaska Department of Natural Resources Comments on the Proposed Stream Protection Rule, Draft Environmental Impact Statement, and Draft Regulatory Impact Analysis
Docket ID: OSM–2010–0018, OSM–2010–0021, and OSM–2015–0002

Dear Director Pizarchik:

Enclosed are the comments from the Alaska Department of Natural Resources (AKDNR) on behalf of the State of Alaska regarding the Proposed Rule on stream protection published by the Office of Surface Mining, Reclamation and Enforcement (OSMRE) in the Federal Register on July 27, 2015, at 80 Fed. Reg. 44436.

After five years of development, OSMRE provided 60 days for review and comments on the rule – 265 pages in the federal register notice – and on the 1,267 page Draft Environmental Impact Statement (DEIS) and the 608 page Draft Regulatory Impact Analysis (DRIA). When the State and other parties requested substantial extensions to this limited period, only a 30 day extension was granted. This extension runs until October 26, 2015, and the State has expended significant resources and effort to expedite review under this tight timeline to ensure the enclosed comments can be timely submitted.

In Alaska, AKDNR regulates coal mining in Alaska under the state coal regulatory program, approved by the Secretary of the Interior in 1983 pursuant to Surface Mining Control and Reclamation Act (SMCRA). The State of Alaska has vast coal resources that span from Arctic tundra to coastal forests. Across this geography, there are countless streams and waterbodies that the program must consider and protect. Because of the potential impact of these regulations to the State's approved program, AKDNR has been following this rule-making for the past five years and participated in early scoping meetings held by OSMRE. ADNR also provided information to OSMRE about the extent of Alaska coal resources, locations of current permits, and locations of proposed mining areas. This information was provided so that the proposed rule would fully consider the impact it will have to the State of Alaska.

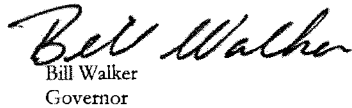
However, the proposed stream protection rule that was publicized is a significant departure from the current regulatory framework that deals with the protection of streams. It has expanded to include

how states process permits, how reclamation requirements for revegetation and invasive species management are implemented, and how operations are bonded. Based on AKDNR's review, these rule changes represent a major rulemaking of proportions not seen since the promulgation of the permanent program regulations in 1979.

The documents also involve a significant rewrite of many portions of OSMRE's current rules in a number of critical areas that impact the implementation of SMCRA in states such as Alaska with primacy regulatory authority. The proposed rule changes do not take into account the "diversity in terrain, climate, biologic, chemical, and other physical conditions in areas subject to mining operations" which prompted Congress to state, in Section 101(f) of SMCRA, that "the primary governmental responsibility for developing, authorizing, issuing, and enforcing regulations for surface mining and reclamation operations subject to this chapter should rest with the States." The proposed changes particularly do not account for the significantly diverse ecological, physical, and climatic conditions that are encountered when coal mining within Alaska. Instead of providing for flexibility in administration of SMCRA within each primacy state, these proposed changes are "one size fits all" contrary to the purposes of SMCRA.

Enclosed are specific comments from AKDNR. In addition, the State of Alaska fully endorses, joins, and adopts by reference the comments submitted by Interstate Mining Compact Commission.

Sincerely,



Bill Walker
Governor

Enclosure

cc: The Honorable Lisa Murkowski, United States Senate
The Honorable Dan Sullivan, United States Senate
The Honorable Don Young, United States House of Representatives
The Honorable Mark Myers, Commissioner, Alaska Department of Natural Resources

Senator SULLIVAN. So it is not partisan. The concern is federalism and the law. It is not the environment. We all want a clean environment.

Again, my State has cleaner water and cleaner air than any State in the country. And it is not because you are helping; it is because State officials do it.

So there is no demonizing here. The problem is when a Federal agency doesn't follow the law, it is our responsibility to make sure that doesn't happen. And what I am always amazed about is how often my colleagues on the other side of the aisle say, fine, go ahead, violate a Federal law, violate the Constitution. But Americans are starting to get really, really tired of it.

So let me go into a couple things on process. You talked about the process.

Alaska is one of the largest coal reserves in the country. Did you go to Alaska in terms of public hearings for this rule?

Mr. PIZARCHIK. No, sir, we did not.

Senator SULLIVAN. OK. Why? Did you go to any State west of the Mississippi?

Mr. PIZARCHIK. Yes.

Senator SULLIVAN. How many times? Once.

Mr. PIZARCHIK. I believe it was twice. There was a hearing in St. Louis——

Senator SULLIVAN. I believe it was once.

Mr. PIZARCHIK [continuing]. And also in Denver.

Senator BOXER. Let me him answer the question.

Senator INHOFE. Come on, Barbara, don't do that.

Senator BOXER. You don't want people to have——

Senator SULLIVAN. Did you have any studies citing Alaska in your entire proposed rule?

Mr. PIZARCHIK. Senator, if you look at what we are proposing——

Senator SULLIVAN. Just answer the question. I have a bunch of questions.

Mr. PIZARCHIK. I am attempting to answer that. Yes, the baseline data needs to be gathered everywhere. Just because we don't have baseline data does not necessarily mean that mining is not causing problems there. I have been across the country, and I have seen water pollution in Colorado——

Senator SULLIVAN. I am sorry, you are not answering the questions. Do you have any studies citing Alaska coal in your rule? No. The answer is no.

So let me go on to another question. My Governor had requested, again, he is an Independent, that you did 5-year rulemaking, thousands of pages, and you gave States 60 days to comment. Do you think that was fair?

Mr. PIZARCHIK. Senator, they had over 100 days, over 3 and a half months, to review the documents and to provide comments, and we had extended the comment period as well.

Senator SULLIVAN. No, initially you provided 60 days, isn't that right?

Mr. PIZARCHIK. Initially we provided a public comment period of 60 days.

Senator SULLIVAN. Do you think that is fair?

Mr. PIZARCHIK. And we extended that. I believe——

Senator SULLIVAN. Three thousand pages, 5 years in the making, 60 days to comment? Do you think that is fair?

Mr. PIZARCHIK. I believe it was. Based on the quality of the comments that I have seen, it is clear that the States were able to read that.

Senator SULLIVAN. Let me ask another. I am going to get a little more legal on you here. Section 101(f) of SMCRA, do you know what section 101(f) states?

Mr. PIZARCHIK. Not off the top of my head, but I have it right here, too.

Senator SULLIVAN. Let me read it to you. So section 101(f) of SMCRA states, "The primary government responsibility for developing, authorizing, issuing, and enforcing regulations for surface mining and reclamation operations subject to this chapter shall rest with the States." You should be very familiar with that. SMCRA is a very interesting statute because a lot of statutes provide veto power of the Federal Government over State programs. But SMCRA specifically did not. The primacy of regulatory issuance and enforcement lies with—according to section 101(f), lies with which entity, you or the States?

Mr. PIZARCHIK. As you indicated, the Surface Mining Act is very complicated. It imposes upon me the obligation to establish the minimum Federal standards across the country.

Senator SULLIVAN. Correct.

Mr. PIZARCHIK. And under the section that you cited it does give States that authority. Now, you need to go a little bit further, because out of the 24 States that have primacy, about half of them have State laws that prohibit the State regulators from implementing rules that are more protective then the Federal minimum standards.

Senator SULLIVAN. I just want to make it clear. For the record, SMCRA provides States—I just read it. 101(f), the primary government responsibility on developing, authorizing, issuing, and implementing regs belongs with the States. And yet you are making a rule that goes into essentially the ability to nullify, so let me get into that issue a little bit.

Are you familiar with the letter that was sent to you by the State of Alaska on August 2nd, 2012 from the Department of Natural Resources? I was commissioner at the time. Let me describe it. It was OSM, who the State of Alaska had worked closely with for years, coming to the State of Alaska and saying there has been a permit issued by the State for 20 years. We now want you to pull it. So the State of Alaska, when I was a commissioner, looked at the legal research, worked with West Virginia, and we politely told you to go pound sand, that you didn't have that authority. Do you think you have the authority to look at permits that have been issued by States and retroactively nullify them? Is there anything remotely in SMCRA that gives you that authority?

Senator INHOFE. Senator Sullivan, you are over your time. We had given you——

Senator SULLIVAN. Oh, I thought, Mr. Chairman, we were going to do 2 minutes after.

Senator INHOFE. You have already used those.

Senator BOXER. Time flies.

Senator SULLIVAN. May I ask one final question, Mr. Chairman? The D.C. Circuit says——

Senator BOXER. I object unless you give that extra time to my friend over there. Is that all right?

Senator SULLIVAN. Oh, I would be glad to.

Senator BOXER. Well, it is up to my Chairman.

Senator INHOFE. OK, without objection.

Senator SULLIVAN. I just want that nullification question is a really important one, and let me help you with it. The D.C. Circuit, talking about this issue in a 1981 decision, said administrative and judicial appeals of permit decisions are matters of State jurisdiction in which the Secretary of Interior plays no role.

Your rule provides for the ability for the Federal Government to nullify State permitting decisions, and that has been clearly ruled by the courts and in the law that say you don't have that power. Can you just address that issue, nullification?

Mr. PIZARCHIK. Thank you, Senator. If you look at the statute as a whole, what it provides is that if States want to be the primary regulatory authority, they do so subject to the oversight of Office of Surface Mining, Reclamation and Enforcement. That includes everything that they do under the law. And there is plenty of case law out there that upholds our ability to look at performance standards after the fact, whether a State regulatory authority made a mistake. And if you look at that statutory provision about that permit you are talking about, the law says that if the mining company fails to activate the mining within 3 years, their permit shall terminate.

Senator INHOFE. All right. Let me just go ahead and interrupt this. Confession is good for the soul, Senator Boxer, and I confess I goofed. One of the reasons I wanted to do this, Senator Sullivan has an interesting background. It is not just that he was attorney general, but he was also commissioner of natural resources, and I knew that he was going to take longer. So I apologize to the other members.

What we are going to do is have a second round, and those individuals who are just taking 5 minutes now can take an additional 3 minutes if they want to stay.

Senator BOXER. Good. But my understanding is he——

Senator INHOFE. Oh, yes, yes. Don't feel obligated, however, Senator Markey, to necessarily do——

[Laughter.]

Senator BOXER. Senator, feel obligated.

Senator INHOFE. Senator Markey.

Senator MARKEY. Thank you, Mr. Chairman, very much.

The principal reason why we are here is mountaintop removal mining, and it is one of the single most environmentally destructive practices on Earth. The streams in the Appalachian region are being buried at an estimated rate of 120 miles per year, and the regulations governing this harmful mining practice are more than 30 years old.

But more than destroying the health of the environment, this mining practice is destroying the health of the residents in local communities. There are mountains of evidence that mountaintop removal mining is significantly harming the health of the residents

in these areas, and it is well past time for the Interior Department to update these regulations to ensure that we can protect the health of local communities, our environment, and our climate, and I am pleased and proud that the Interior Department is engaged in the process of issuing strong new rules that will help protect streams and the people and their health in the communities that surround them from mountaintop mining.

So, Director Pizarchik, the Surface Mining Control and Reclamation Act of 1997, which I will now refer to as SMCRA just so anyone who is listening knows what we are talking about, lays out a number of purposes of the Act aimed at lessening the impacts of mining on the environment. Specifically, it is intended to establish "a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations and to assure that surface coal mining operations are so conducted as to protect the environment."

Isn't the Interior Department Stream Protection Rule necessary to fulfill the Department's statutory obligations under the law?

Mr. PIZARCHIK. Absolutely, Senator.

Senator MARKEY. So it doesn't go beyond your authority, but in fact it is an exercise of your authority and your responsibility to protect the environment and the health of those who live near these streams, is that correct?

Mr. PIZARCHIK. Yes, Senator.

Senator MARKEY. If you did not in fact take these actions, given what we now know 30 years later, you would not actually be fulfilling your responsibilities in the job which you have right now, is that correct?

Mr. PIZARCHIK. Yes, sir.

Senator MARKEY. So would the Department's proposed Stream Protection Rule protect the environment and local communities by reducing the number of streams that are buried or adversely affected?

Mr. PIZARCHIK. Yes, sir, that was the expected outcome, and we expected there would be several thousand miles of streams that will have been protected.

Senator MARKEY. That will be protected. And as a result of your protection of them, it will reduce the amount of toxic pollution which will go into the streams, that otherwise would be in the streams, that could have adverse impacts on human beings, is that correct?

Mr. PIZARCHIK. Yes, Senator.

Senator MARKEY. And you consider that to be your responsibility, to protect against deadly toxic materials going into streams, going into rivers in America?

Mr. PIZARCHIK. Not only do I believe that, but that is specifically set forth a number of times in SMCRA.

Senator MARKEY. So that is why it is hard to understand why people would object to this. I mean, we just learned the lessons once again in Flint, Michigan. But going back all the way to the Cuyahoga River in Cleveland, we see what happens when there is a callous indifference to using river streams as just dumping grounds, toilets, where arsenic, other dangerous materials are just

poured into these bodies of water. Ultimately, it comes back to haunt, to hurt the health of families.

And we can see in the pictures night after night of how horrified ordinary families are in Flint, Michigan, but we know that is not the only place in America where there is a danger from lead in pipes. This is just one example. But the faces of the people in that community are saying pretty much we thought the Government was protecting us. We wouldn't believe that water could come out of faucets that could harm our children. We wouldn't believe anyone would allow the water that our children are exposed to could have these dangerous materials in them. And you could almost see them saying we trusted you; we wouldn't think that you would allow something so dangerous to occur without the protections being put in place.

So there have been many studies that have been done documenting the adverse health impacts associated with living in areas affected by mountaintop removal mining operations. Did your Department take into account the health impacts associated with this type of mining in developing your new rule?

Mr. PIZARCHIK. Senator, as part of our process, we looked at all the science that we could get our hands on as far as what the impacts of coal mining were in order to factor that into what we were proposing.

Senator MARKEY. And what was the conclusion which you reached?

Mr. PIZARCHIK. We have concluded, based on the developments in science, that we are continuing to have streams that are adversely impacted, water that is adversely impacted by coal mining, both groundwater and surface water, and that we need to up our game, to modernize our rules to better protect surface and groundwaters from the adverse effects of mining.

Senator MARKEY. Thank you. So the streams in the Appalachian region are the headwaters for the drinking water supply for tens of millions of Americans, so it is not just some isolated issue that we are talking about. The impact is on tens of millions of people and their drinking water, and if arsenic or selenium is going into that water, then there is a danger to children, not just in that one location, but as it flows down the water bodies that are near those headwaters.

So that is your essential concern, to protect the health and wellbeing of families in our country?

Mr. PIZARCHIK. Yes, Senator. And just to put it in perspective, the headwaters of the Potomac River start in Appalachia.

Senator MARKEY. Well, I think the water that we are drinking right now should be checked immediately so that we understand what the impact should be on those of us who are here in this room today. It has to be an ongoing quest to ensure that we have the highest quality drinking water. Flint, Michigan, has just been the poster child for what can happen if you forget the children in our country.

Thank you for all your good work.

Mr. PIZARCHIK. Thank you, Senator.

Senator INHOFE. Senator Capito.

Senator CAPITO. Thank you, Mr. Chairman.

And thank you, Mr. Pizarchik, for your service and for working hard. I want to begin my statement by saying I live in Appalachia, that place everybody is talking about. My home is 5 miles from an underground mine and a surface mine, maybe 10 miles. So I am in and around people and folks all the time; they are my neighbors, friends, so I have a deep passion for what we are talking about today.

I have been very frustrated with the Administration because we have been fighting for affordable, reliable energy that does all the above. We have pushed back on the Clean Power Plan because of what it does to the economics of certain regions, picking winners and losers. And now we have the Stream Protection Rule, and I would like to just talk about some of the economic effects.

You got into this just very minimally in a response to a question, and I would like to preface, too, that living there, being there, clean water, clean air are as important to us as it is anybody else. So I have a chart here that says that the new Stream Protection Rule in Appalachia, which we have been referring to quite a bit, is up to about 64,000, $15 million in lost revenues, and many mining jobs lost and at risk. Also, the production of coal will go down significantly, as it has been doing.

Our State is now $300 million underwater, State of West Virginia $300 million underwater in our State budget. We have had to cut our education budget because our tax revenues, principally from coal, have gone down so much. This is the second hearing that we have had, because I am also on the Energy Committee as well, where we had testimony much the same that we have today.

So I just feel like this rule is just so broad and overreaching, and we have talked about it minimally here, too, reaching into the Clean Water Act and the Endangered Species Act. So one question I would like to say is we have talked a lot about the States' responsibility here and what kind of input the States had. We had testimony over in the Energy Committee that it was rebuffed by OSM, and a lot of States signed on originally to be part of the partnerships to develop a rule that made sense for States and for the Federal—but then my understanding is that many States pulled out of that partnership—Indiana, Kentucky, Montana, New Mexico, Utah, Alabama, West Virginia, and Texas.

And then in response to Senator Sullivan's question you said that they were given 100 days, I think you said, to respond, 60 days and then an extension after that, on a 3,000-page rule. So I guess I would ask you why, in your opinion, did the States pull out of this cooperative arrangement?

Mr. PIZARCHIK. Senator, thank you for the question. I too grew up in Appalachia, in coal country.

Senator CAPITO. Right, Pennsylvania.

Mr. PIZARCHIK. And I have relatives and friends, people who worked in the coal mines. Some of my classmates from school worked in the coal mines. I am very sympathetic to people who are losing their jobs, and I know how important coal jobs and coal can be in certain parts of the community, and I have traveled across the country, been in your States numerous times. I have seen that.

As far as the States' motivation, I wouldn't speculate on that.

Senator CAPITO. Well, wouldn't you see, if you have the vast majority of States that are cooperating, who deal with this every day, pulling out from any kind of cooperative agreement certainly should have been a signal to you that this was highly contentious and I think would have been, at least in my case, an impetus to rethink the direction that you were going.

Let me ask you this. What is the impact of this rule? We heard about mountaintop. What is the impact of this rule, in your opinion, on underground mines? There is a great concern there this is going to eliminate a lot of production in underground mines, which it will. We have already lost, just last week, 2,000 jobs in the coal mine industry alone, most of these underground mines. Can you answer that question?

Mr. PIZARCHIK. I could, yes, and that is an important point to clarify because there is a misperception out there that this rule would prohibit all long wall underground mining. That is not the case. The term that we are defining, material damage to the hydrologic balance outside the permit area, includes those areas above underground mines, and what we are proposing is to give teeth and effect to that part of the law so that underground mining that would destroy those streams on the surface will not allow those streams to be destroyed. So they can do different types of underground mining.

And the statute has a provision in it that also provides—it is my obligation that where reclamation cannot be successfully done, that permits should not be issued for that. From the analysis that our outside experts looked at, most of the underground mining will be able to continue to go forward on that. There are going to be some areas where you just can't undermine because you are going to destroy the water resources, the streams on the surface. That has always been the law. That has been my experience in Pennsylvania. Some areas can be mined; some areas cannot.

So there will be some impact on it, but it will not be a major impact. And as the rules on classifying impacts that we follow under this, I believe collectively the impacts on the industry are going to be considered small. I think it is less than 0.2 percent of production, and it is a fraction of the total annual revenues of the industry.

Senator CAPITO. Let me ask you another question on the balance. This is the big question that we get in this Committee, and I think the Chairman and I join together to try to talk a lot about the economic impacts of rulemaking in all different areas. It is not so much the goal that any of us would be rejecting. Who would be rejecting a goal of clean water and clean air? Absolutely not. But sometimes it is just not that simple, as you know; you are in the business of trying to do that.

What kind of considerations in this rule, in this specific rule, were made in terms of looking at the economic impacts? We can talk about creation of pockets of poverty in my State that are growing, the pessimism, the desolate attitude of my Government is doing this to me, and nobody cares. So what kind of balance do you look for here, and do you look for that?

Mr. PIZARCHIK. I am very concerned about those people who lose their jobs and things of that nature, and yes, we do a balance. The

statute requires me to balance the interests of protecting society, protecting the water resources while ensuring there is sufficient coal supply to meet the country's energy needs. As part of the NEPA process what we have done, we hired outside experts to do that type of analysis; not relying on my staff or my people, but other folks. And their analysis was peer reviewed pursuant to the procedures and processes established by the applicable rules.

That information was used in assessing the potential impacts of changes that we were potentially considering.

Senator CAPITO. I am at the end. Can I get that information, that NEPA review? Is that something that I could see, the economic impact statement that they provided for you?

Mr. PIZARCHIK. That, I believe, is included in the draft Environmental Impact Statement and is publicly available. Yes, we can provide that. We have also prepared, in accordance with the rules, a regulatory impact analysis. We would be happy to provide that to you as well.

Senator CAPITO. Thank you. Thank you.

Senator INHOFE. Thank you, Senator Capito.

Senator Cardin.

Senator CARDIN. Thank you, Mr. Chairman, and thank you for convening this hearing.

And thank you very much for your attendance and your service, your public service. I would hope that all Members of Congress want clean air and clean water, but we are judged by our actions, not by our words, and each Congress has an opportunity to add to that, and certainly not to take away from the protections that we provide for clean air and clean water.

Clean water is vital to our economy, and I think we all can acknowledge that. A child who has suffered from lead poisoning as a result of not having safe drinking water, that child will not reach his or her full potential, and it is tragic for the individual, and it is tragic for our economy. The number of premature deaths due to the quality of water, the number of missed days at work because of tending to public health issues, the number of missed days at school, the importance of industry having sources of clean water for their products, all that adds to the economy.

And as we are all bragging about being in Appalachia, my State, of course, has in the western part of the Appalachia region, and I have enjoyed camping out with my children and skiing, and just enjoying one of the most beautiful places in our country. And yes, recreation use depends upon clean water and clean air, and that is a huge part of the growth of the economic opportunities in the Appalachia region. So all that cries out for you carrying out your responsibilities for clean water.

Surface, underground, or mountaintop removal all have risks involved in our environment, and we need to deal with that. So, yes, I also want clean water from our streams in the Chesapeake Bay, as many of those waters end up in the Chesapeake Bay of Maryland and this region.

So my first question is it is difficult to repair the damage once it is done, and I would like you to comment about that. Mountaintop removal, we have seen major damages to streams. Once it is

caused, where are the challenges in trying to clean up the results of the damage to our streams?

Mr. PIZARCHIK. Once you have caused the pollution, typically, it is a long-term pollution problem, you cannot eliminate it, and it often costs way more money to treat that water than to prevent the pollution from occurring in the first place. We are aware of some studies that were done where in the mountaintop mining they filled in the valleys, and some of these valley fills are decades old and they are still discharging high levels of total dissolved solids. The only way to take the total dissolved solids out is a reverse osmosis treatment system, the one of which I am aware of was from underground mines in West Virginia. It cost over $200 million to build and $9 million to $18 million a year to operate. If you are mining coal, you can't build too many of those and continue to stay in business.

Selenium gets elevated on a lot of streams. To build a bioreactors for those seleniums costs a couple of million dollars, it is my understanding, in order to take out, and then you have to constantly maintain it. It is a whole lot better to prevent the problem.

The example I can give most effective is from my experience in Pennsylvania with acid mine drainage. Until the State was able to predict so you could prevent it, a lot of companies went out of business because they couldn't afford to treat the pollution they created.

Senator CARDIN. So in the regulatory process, what are you doing to preserve and protect buffer zone protections from mining operations?

Mr. PIZARCHIK. The existing 100-foot provision is still going to be in the rule. By creating the definition for material damage to the hydrologic balance, that creates a standard so that people can know what they are measured against by creating the baseline of the stream data to collect that. That helps inform the process so we know whether mining is going to occur.

And while the Surface Mining Act allows people to mine through streams, what we are creating is a standard in there that they need to gather that baseline on the water quality, the quantity, and the aquatic community, the critters living in that stream, to be able to make a determination can they restore that, and then proposing in our rule that they restore the ecological and geologic function and the hydrologic function of that stream. Let them make the business decision can they do that.

Some streams can be rebuilt and repaired; some cannot. And if you cannot do it, the law says the permit should not be issued for it.

Senator CARDIN. In the 111th Congress, Senator Alexander and I introduced the Appalachia Restoration Act. It was an effort to get a real handle on mountaintop removal, recognizing the devastating impact that mountaintop removal coal operations have on our environment. Not only destroyed streams; it destroys landscape. It destroys forever. That legislation was not enacted, but as a result of that legislation the Administration took certain actions to control mountaintop removal coal operations.

Could you explain what actions you will be taking in this regulation, or how it will affect mountaintop removal? There are many

people who would like to see this practice totally eliminated, including myself. I understand that you are not taking that tack. Could you just explain to us where we are on mountaintop removal?

Mr. PIZARCHIK. Yes, Senator. Thank you for that question. The statute allows mountaintop removal mining, and it sets certain provisions for when it can be conducted. We are proposing to change our rules to incorporate those statutory provisions into that provision as well, also requiring that the excess soil be put back and that the land be restored to approximate original contour, as mentioned, that means put the mountain back when it is done, and changing the bonding requirements so that if the operator has an approved post-mining land use, which the law allows, but they don't implement it, then there is enough bond there to put the mountain back.

As well as the practice of it, by protecting those downstreams and finding out what kind of resources and stuff are living in the streams, having that the baseline to monitor, to make sure that if they are creating those valley fields, they are not creating pollution, because we need to know what is in the stream because, frankly, I know a lot of people don't want to hear it, but the days of line mining are over. We need to put an end to that. We need to get the baseline data, figure out what is there, measure the operation standards against that to make sure that we are not creating more Flint Rivers.

Senator CARDIN. Well, I appreciate that, and obviously there are challenges in our political system. We understand that. But the American people understand the importance of the work that you are doing, and we thank you very much for your service.

Senator INHOFE. Thank you, Senator Cardin.

Senator Barrasso, for 7 minutes.

Senator BARRASSO. Thank you very much, Mr. Chairman.

Mr. Pizarchik, I would like to turn to the National Environmental Policy Act, NEPA. NEPA requires every Federal agency to assess the environmental impacts that would result from the agency's actions, actions like approving a permit, issuing a new regulation. Now, a Federal agency assesses environmental impacts in what is known as the Environmental Impact Statement, the EIS. Prior to issuing an EIS, the Federal agency is required, required to consult with other agencies, including State agencies, State agencies which have special expertise with respect to the action under consideration. The Federal agency preparing the EIS is called the lead agency, and then the other agencies are called the cooperating agencies. Under NEPA, the lead agency is not only required to consult with cooperating agencies; it must ensure that the participation of the cooperating agencies is "meaningful."

So when your office began developing the so-called Stream Protection Rule, it identified 10 State agencies as cooperating agencies. Your office signed agreements with these agencies, these 10 State agencies, in which your office pledged to provide them with, No. 1, copies of key or relevant documents underlying the EIS, signed a document pledging to provide them with administrative drafts of the EIS, and signed a document pledging to provide a reasonable time for review and comments. That is your agency, your office.

Between then, January 2011, and the issuance of the proposed rule in July 2015, your office did none of this. For 4 and a half years, your office shared neither the drafts of the EIS nor the documents related to the EIS. During this time, your office engaged in no meaningful consultation whatsoever with the State agencies. It even ignored the States' repeated requests for consultation.

In 2015, eight States felt they had no other choice but to withdraw as cooperating agencies.

Now, Mr. Pizarchik, you have been Director of the Office of Surface Mining since November 2009, before all this started, so why have you allowed your staff to make a mockery of its obligation under the National Environmental Policy Act, and where does the law allow your agency to go dark for 4 and a half years?

Mr. PIZARCHIK. Thank you, Senator, for that question. The States have had a lot of input into this process, and we have requested those States who had provided notice that they were not going to continue to participate to reengage. I sent that out in October of that year. I also sent out a request to the Interstate Mining Compact Commission for them to reengage. They declined. I have not heard back from the States.

Notwithstanding that, we have continued to reach out. We are continuing to work with the States. The State regulatory authorities that submitted comments, we have been meeting with them. We have had, I believe, about 18 meetings with them over the past several weeks, getting input from them on the proposed rule and the comments that the provided. We stand ready to meet with those. The Assistant Secretary has met with State folks as well. She has been to Alaska; she has a trip planned for North Dakota. We are continuing to provide outreach to the States.

Senator BARRASSO. Well, let me be clear. Your agency did not consult with the States for 4 and a half years, from January 2011 until the issuance of the rule of July 2015. You, sir, have made a mockery of this process. When, in February 2011, Governor Butch Otter of Idaho, a Republican, Chairman of the Western Governors Association, as well as a Democrat, the Governor of Washington, wrote to the Secretary of the Interior about the rulemaking, they asked the Secretary to ensure that your agency engaged States in a meaningful and substantial way. The Secretary of the Interior, Secretary Salazar, wrote back and said all cooperating agencies will have an additional opportunity to review and comment on a preliminary draft EIS statement before it is published for public review and comment. Never happened. Never happened in 4 and a half years.

Why did your agency fail to honor Secretary Salazar's specific commitment to cooperating State agencies?

Mr. PIZARCHIK. Senator, the States have had meaningful input. We have received a lot of valuable comments from the State regulatory authorities that has helped us craft this proposed rule and informed the process on that, and we have made a number of changes. We have continued to reach out to them to meet, reengage on that, and that offer continues to be open with them, and we continue to reach out to the States to obtain State input on this rule as we go forward.

Senator BARRASSO. With all due respect, your answer just doesn't pass the smell test. Your agency did not consult with the States between January 2011 and the issuance of the rule, 4 and a half years later. Secretary Salazar understood your agency's obligations under NEPA. You continue to give excuses, play this tired game of cat and mouse. It really is high time for your agency to at least own up to its failure to follow the National Environmental Protection Act and withdraw the rule immediately.

Thank you, Mr. Chairman.

[The referenced letter follows:]

THE SECRETARY OF THE INTERIOR
WASHINGTON

APR 15 2011

The Honorable C. L. "Butch" Otter
Governor of Idaho
Boise, Idaho 83702

Dear Governor Otter:

Thank you for your letter of February 27, 2011, concerning the development of stream protection regulations and the supporting Draft Environmental Impact Statement (EIS) by the Office of Surface Mining Reclamation and Enforcement (OSM).

I appreciate your interest in the potential application of this rule to the coal-producing states that the Western Governors' Association (WGA) represents, several of which are cooperating states in OSM's Draft EIS development process.

I want to assure you that OSM has not proposed a new Stream Protection Rule, nor has it completed a Draft EIS that is necessary to inform a proposed rule. The OSM is still gathering information, reviewing a preliminary draft of EIS chapters, and considering comments received from states serving as EIS cooperating agencies. The OSM shared the early, contractor-generated chapters of the Draft EIS with the cooperating states as part of its effort to be more open and transparent in its rulemaking process. These early drafts are not official OSM documents and do not reflect the official views of OSM or the Department of the Interior.

Along with OSM Director Joseph Pizarchik, I greatly appreciate the contributions that your member states have made in reviewing these early draft chapters. The comments they have provided to OSM have been helpful and will strengthen the Draft EIS and the proposed rule as they are further refined. All cooperating agencies will have an additional opportunity to review and comment on a Preliminary Draft EIS before it is published for public review and comment.

The Draft EIS will be based on reliable and accurate information. It will contain a set of alternatives that are fully analyzed, and will be made available through the normal EIS process for public review and comment. Together with the Draft EIS, the proposed rule will provide the scientific and policy basis for any proposed regulatory changes. Comments received on the proposed documents will be considered, consistent with the requirements of the Administrative Procedure Act (APA) and the National Environmental Policy Act (NEPA), before OSM or the Department makes any final rulemaking decisions.

The OSM has afforded extensive opportunities for stakeholder participation throughout the rulemaking and EIS development processes, far beyond what the APA and NEPA require. In doing so, OSM has demonstrated a commitment to developing reasonable, fair, and effective stream protection rules through an open and inclusive process.

The OSM is proposing new stream protections because of its responsibility to protect all of the Nation's streams from the adverse effects of surface coal mining. This responsibility is not limited to any particular region, and protective measures and standards must be applied wherever there is the potential for coalmine-related stream damage.

Thank you for sharing your views on OSM's stream protection rulemaking effort and the EIS development process. The public, the states, and stakeholders have been crucial -- and will continue to be crucial - to these efforts every step of the way. I look forward to the continued involvement of the WGA member states serving as cooperating agencies in helping OSM to make the tough choices necessary to protect our Nation's streams.

A similar response is being sent to the Honorable Christine O. Gregoire, Governor of Washington.

Sincerely,

Ken Salazar

Senator INHOFE. Thank you, Senator Barrasso.

Senator Gillibrand.

Senator GILLIBRAND. Thank you, Mr. Chairman.

Do you agree that when evaluating the potential cost of a regulation such as the Stream Protection Rule, we should ensure that we are also factoring the costs of inaction, which could include the costs that families face when their quality of life is significantly impacted by polluted water, including the health impacts and diseases associated with poor water quality and the cost of restoring environmental damage if it is not prevented? And can you discuss how the Stream Protection Rule will address those types of costs and consequences?

Mr. PIZARCHIK. Thank you for that question, Senator Gillibrand. There are rules out there that govern the type of factors that we look at and costs that are included in an impact analysis on it, and I think there are a lot of things that ought to be included that sometimes the existing rule process does not include, for instance like the avoided costs if an operator, as I mentioned earlier, if they create pollution, they have to perpetually treat that, and they are creating pollution. But that is not a cost factor that goes into the cost analysis, so in many ways we are actually protecting the industry from these potential costs.

As far as costs on health and people, I don't know how to put a value on someone's life, put a value on whether their life has been shortened or something like that. I don't know how that gets taken into the thought process. I would much rather approach this to carry out my responsibilities to implement the law to prevent the pollution from occurring in the first place.

Senator GILLIBRAND. How has the science used to evaluate the effect of mining operations on water quality evolved in the past 30 years since the Stream Buffer Zone Rule was implemented, and how has that influenced the need for this new rule?

Mr. PIZARCHIK. We know a lot more today than we did 30 years ago when these regulations were developed. For instance, we know that selenium can be mobilized from coal mining in certain areas, and it gets into the water, bioaccumulates in the aquatic community, causes deformities in those critters living in the stream, and can be bioaccumulating in unsafe levels for people who were to consume the fish for people that were living in that particular area.

We also know that total dissolved solids—years ago we did not know it was a problem. Even as recently as maybe 10 or 15 years ago we did not know total dissolved solids were having an adverse impact. In my experience in Pennsylvania, at Dunkard Creek, there was a huge fish kill, and it wasn't based on baseline data that West Virginia had collected for those coal mines or that my State had collected for those coal mines, it was because people were seeing large fish washing up on the shore and floating, and it was due to high levels of total dissolved solids.

We have seen studies in the past few years downstream of valley fills that were built sometimes several years or a decade or more ago, and the only thing in that watershed is that valley fill. No other human activities, and yet the sensitive macro invertebrates, the bugs and communities that live in there, they are gone. And then if you look at the fish, there is less fish biomass in there, and

it stands to reason because if there is nothing to eat, there aren't going to be any fish there. And we look at the control stream.

So we know more about that type of science and how to see things that 30 years ago were not known to be a problem. What we are proposing in this rule is to deal with that science and also ask people to take a broader look, because I am sure there are probably things that are in the water today that we have not yet recognized as causing pollution problems, and we want to provide the States the flexibility to develop those standards at the State level, the mine level in order to protect the water and their people.

Senator GILLIBRAND. Can you elaborate a little more further on why you believe this proposed Stream Protection Rule is necessary to fill regulatory gaps that can't be adequately filled by relying on the States and the Clean Water Act alone?

Mr. PIZARCHIK. Yes. The Clean Water Act has had a lot of success over the years, but its primary point is measuring or setting effluent limits at the point where the pollution or the water is discharged from the mine into the stream, to meet those limits here. They don't look at a cumulative loading of that water until the stream becomes impaired, polluted. Well, from our standpoint, my law says that we have to maintain the water quality of that stream to protect those resources. It goes beyond the Clean Water Act.

The Clean Water Act also only looks at the surface waters. The Surface Mining Act says I have to look at the surface water and the underground water, so protect all of that.

Clean Water Act, with the Army Corps of Engineers for putting fill in the streams, where they look at the cumulative load, they look at the stream banks and the high water mark; they don't look at what happens up here or happens over here, the whole watershed. Under my law, we have to do that. We have to take a cumulative look at the entire watershed to see what is happening, as well as look at off the permit area.

So the Clean Water Act has been a great success as far as it goes. Congress, I believe, recognized that and reserved that exclusively for EPA. We recognize that, and that is what we are staying away from. But we are trying to fill those areas where the Clean Water Act just does not come into play, like for groundwater.

Senator GILLIBRAND. Thank you, Mr. Chairman.

Senator INHOFE. Thank you, Senator Gillibrand.

We are going to be dismissing this panel. Senator Boxer wants to submit something for the record.

Senator BOXER. Yes. I want to thank you so much for your patience in the face of some anger here. Thank you.

I ask unanimous consent to place in the record the statement of purpose of the Surface Mining Act, which is to establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations. That is A. That is A. And then the second section that deals with your authorities is section 304, the duties, which require you to report on every State's status. And the last is the enforcement, which gives you a lot of strength here to go after those bad actors.

So I am putting that in the record, and maybe people will come to their senses about what we are supposed to be doing here.

Senator INHOFE. Without objection.

[The referenced information follows:]

30 USC 1202: Statement of purpose
Text contains those laws in effect on February 3, 2016

From Title 30-MINERAL LANDS AND MINING
CHAPTER 25-SURFACE MINING CONTROL AND RECLAMATION
SUBCHAPTER I-STATEMENT OF FINDINGS AND POLICY
Jump To:
Source Credit

§1202. Statement of purpose

It is the purpose of this chapter to-

(a) establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations;

(b) assure that the rights of surface landowners and other persons with a legal interest in the land or appurtenances thereto are fully protected from such operations;

(c) assure that surface mining operations are not conducted where reclamation as required by this chapter is not feasible;

(d) assure that surface coal mining operations are so conducted as to protect the environment;

(e) assure that adequate procedures are undertaken to reclaim surface areas as contemporaneously as possible with the surface coal mining operations;

(f) assure that the coal supply essential to the Nation's energy requirements, and to its economic and social well-being is provided and strike a balance between protection of the environment and agricultural productivity and the Nation's need for coal as an essential source of energy;

(g) assist the States in developing and implementing a program to achieve the purposes of this chapter;

(h) promote the reclamation of mined areas left without adequate reclamation prior to August 3, 1977, and which continue, in their unreclaimed condition, to substantially degrade the quality of the environment, prevent or damage the beneficial use of land or water resources, or endanger the health or safety of the public;

(i) assure that appropriate procedures are provided for the public participation in the development, revision, and enforcement of regulations, standards, reclamation plans, or programs established by the Secretary or any State under this chapter;

(j) provide a means for development of the data and analyses necessary to establish effective and reasonable regulation of surface mining operations for other minerals;

(k) encourage the full utilization of coal resources through the development and application of underground extraction technologies;

(l) stimulate, sponsor, provide for and/or supplement present programs for the conduct of research investigations, experiments, and demonstrations, in the exploration, extraction, processing, development, and production of minerals and the training of mineral engineers and scientists in the field of mining, minerals resources, and technology, and the establishment of an appropriate research and training center in various States; and

(m) wherever necessary, exercise the full reach of Federal constitutional powers to insure the protection of the public interest through effective control of surface coal mining operations.

(Pub. L. 95–87, title I, §102, Aug. 3, 1977, 91 Stat. 448 .)

30 USC 1211: Office of Surface Mining Reclamation and Enforcement
Text contains those laws in effect on December 17, 2015
Pending Updates: Pub L. 114-113 (12/18/2015) [View Details]

From Title 30-MINERAL LANDS AND MINING
CHAPTER 25-SURFACE MINING CONTROL AND RECLAMATION
SUBCHAPTER II-OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Jump To:
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References In Text
Amendments
Effective Date
Termination Date
Miscellaneous

§1211. Office of Surface Mining Reclamation and Enforcement

(a) Establishment

There is established in the Department of the Interior, the Office of Surface Mining Reclamation and Enforcement (hereinafter referred to as the "Office").

(b) Appointment, compensation, duties, etc., of Director; employees

The Office shall have a Director who shall be appointed by the President, by and with the advice and consent of the Senate, and shall be compensated at the rate provided for level V of the Executive Schedule under section 5315 [1] of title 5, and such other employees as may be required. Pursuant to section 5108 of title 5, and after consultation with the Secretary, the Director of the Office of Personnel Management shall determine the necessary number of positions in general schedule employees in grade 16, 17, and 18 to perform functions of this subchapter and shall allocate such positions to the Secretary. The Director shall have the responsibilities provided under subsection (c) of this section and those duties and responsibilities relating to the functions of the Office which the Secretary may assign, consistent with this chapter. Employees of the Office shall be recruited on the basis of their professional competence and capacity to administer the provisions of this chapter. The Office may use, on a reimbursable basis when appropriate, employees of the Department and other Federal agencies to administer the provisions of this chapter, providing that no legal authority, program, or function in any Federal agency which has as its purpose promoting the development or use of coal or other mineral resources or regulating the health and safety of miners under provisions of the Federal Coal Mine Health and Safety Act of 1969 (83 Stat. 742) [30 U.S.C. 801 et seq.], shall be transferred to the Office.

(c) Duties of Secretary

The Secretary, acting through the Office, shall-

(1) administer the programs for controlling surface coal mining operations which are required by this chapter; review and approve or disapprove State programs for controlling surface coal mining operations and reclaiming abandoned mined lands; make those investigations and inspections necessary to insure compliance with this chapter; conduct hearings, administer oaths, issue subpenas, and compel the attendance of witnesses and production of written or printed material as provided for in this chapter; issue cease-and-desist orders; review and vacate or modify or approve orders and decisions; and order the suspension, revocation, or withholding of any permit for failure to comply with any of the provisions of this chapter or any rules and regulations adopted pursuant thereto;

(2) publish and promulgate such rules and regulations as may be necessary to carry out the purposes and provisions of this chapter;

(3) administer the State grant-in-aid program for the development of State programs for surface and mining and reclamation operations provided for in subchapter V of this chapter;

(4) administer the program for the purchase and reclamation of abandoned and unreclaimed mined areas pursuant to subchapter IV of this chapter;

(5) administer the surface mining and reclamation research and demonstration project authority provided for in this chapter;

(6) consult with other agencies of the Federal Government having expertise in the control and reclamation of surface mining operations and assist States, local governments, and other eligible

agencies in the coordination of such programs;

(7) maintain a continuing study of surface mining and reclamation operations in the United States;

(8) develop and maintain an Information and Data Center on Surface Coal Mining, Reclamation, and Surface Impacts of Underground Mining, which will make such data available to the public and the Federal, regional, State, and local agencies conducting or concerned with land use planning and agencies concerned with surface and underground mining and reclamation operations;

(9) assist the States in the development of State programs for surface coal mining and reclamation operations which meet the requirements of this chapter, and at the same time, reflect local requirements and local environmental and agricultural conditions;

(10) assist the States in developing objective scientific criteria and appropriate procedures and institutions for determining those areas of a State to be designated unsuitable for all or certain types of surface coal mining pursuant to section 1272 of this title;

(11) monitor all Federal and State research programs dealing with coal extraction and use and recommend to Congress the research and demonstration projects and necessary changes in public policy which are designated to (A) improve feasibility of underground coal mining, and (B) improve surface mining and reclamation techniques directed at eliminating adverse environmental and social impacts;

(12) cooperate with other Federal agencies and State regulatory authorities to minimize duplication of inspections, enforcement, and administration of this chapter; and

(13) perform such other duties as may be provided by law and relate to the purposes of this chapter.

(d) Restriction on use of Federal coal mine health and safety inspectors

The Director shall not use either permanently or temporarily any person charged with responsibility of inspecting coal mines under the Federal Coal Mine Health and Safety Act of 1969 [30 U.S.C. 801 et seq.], unless he finds and publishes such finding in the Federal Register, that such activities would not interfere with such inspections under the 1969 Act.

(e) Repealed. Pub. L. 96–511, §4(b), Dec. 11, 1980, 94 Stat. 2826

(f) Conflict of interest; penalties; rules and regulations; report to Congress

No employee of the Office or any other Federal employee performing any function or duty under this chapter shall have a direct or indirect financial interest in underground or surface coal mining operations. Whoever knowingly violates the provisions of the above sentence shall, upon conviction, be punished by a fine of not more than $2,500, or by imprisonment for not more than one year, or both. The Director shall (1) within sixty days after August 3, 1977, publish regulations, in accordance with section 553 of title 5, to establish the methods by which the provisions of this subsection will be monitored and enforced, including appropriate provisions for the filing by such employees and the review of statements and supplements thereto concerning their financial interests which may be affected by this subsection, and (2) report to the Congress as part of the annual report (section 1296 of this title) on the actions taken and not taken during the preceding calendar year under this subsection.

(g) Petition for issuance, amendment, or repeal of rule; filing; hearing or investigation; notice of denial

(1) After the Secretary has adopted the regulations required by section 1251 of this title, any person may petition the Director to initiate a proceeding for the issuance, amendment, or repeal of a rule under this chapter.

(2) Such petitions shall be filed in the principal office of the Director and shall set forth the facts which it is claimed established that it is necessary to issue, amend, or repeal a rule under this chapter.

(3) The Director may hold a public hearing or may conduct such investigation or proceeding as the Director deems appropriate in order to determine whether or not such petition should be granted.

(4) Within ninety days after filing of a petition described in paragraph (1), the Director shall either grant or deny the petition. If the Director grants such petition, the Director shall promptly commence an appropriate proceeding in accordance with the provisions of this chapter. If the Director denies such petition, the Director shall so notify the petitioner in writing setting forth the reasons for such denial.

(Pub. L. 95–87, title II, §201, Aug. 3, 1977, 91 Stat. 449 ; Pub. L. 95–240, title I, §100, Mar. 7, 1978, 92 Stat. 109 ; 1978 Reorg. Plan No. 2, §102, eff. Jan. 1, 1979, 43 F.R. 36037, 92 Stat. 3783; Pub. L. 96–511, §4(b), Dec. 11, 1980, 94 Stat. 2826 .)

REFERENCES IN TEXT

The Federal Coal Mine Health and Safety Act of 1969, referred to in subsecs. (b) and (d), is Pub. L. 91–173, Dec. 30, 1969, 83 Stat. 742 , as amended, which was redesignated the Federal Mine Safety and Health Act of 1977 by Pub. L. 95–164, title I, §101, Nov. 9, 1977, 91 Stat.

30 USC 1224: Duties of Secretary
Text contains those laws in effect on February 3, 2016

From Title 30-MINERAL LANDS AND MINING
CHAPTER 25-SURFACE MINING CONTROL AND RECLAMATION
SUBCHAPTER III-STATE MINING AND MINERAL RESOURCES RESEARCH INSTITUTES

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§1224. Duties of Secretary

(a) Consulting with other agencies; prescribing rules and regulations; furnishing advice and assistance; coordinating research

The Secretary, acting through the Director of the United States Bureau of Mines, shall administer this subchapter and, after full consultation with other interested Federal agencies, shall prescribe such rules and regulations as may be necessary to carry out its provisions. The Secretary shall furnish such advice and assistance as will best promote the purposes of this subchapter, shall participate in coordinating research initiated under this subchapter by the institutes, shall indicate to them such lines of inquiry that seem most important, and shall encourage and assist in the establishment and maintenance of cooperation by and between the institutes and between them and other research organizations, the United States Department of the Interior, and other Federal establishments.

(b) Annual ascertainment of compliance

On or before the first day of July in each year beginning after August 29, 1984, the Secretary shall ascertain whether the requirements of section 1223(a) of this title have been met as to each institute and State.

(Pub. L. 98–409, §4, Aug. 29, 1984, 98 Stat. 1538 ; Pub. L. 100–483, §6, Oct. 12, 1988, 102 Stat. 2340 ; Pub. L. 102–285, §10(b), May 18, 1992, 106 Stat. 172 .)

CODIFICATION

Subsec. (c) of this section, which required the Secretary to make an annual report to Congress on the receipts, expenditures, and work of the institutes in all States under the provisions of this subchapter, terminated, effective May 15, 2000, pursuant to section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance. See, also, page 109 of House Document No. 103–7.

Section was enacted as part of the Mining and Mineral Resources Research Institute Act of 1984, and not as part of the Surface Mining Control and Reclamation Act of 1977 which comprises this chapter.

PRIOR PROVISIONS

A prior section 1224, Pub. L. 95–87, title III, §304, Aug. 3, 1977, 91 Stat. 454 , contained provisions similar to this section covering fiscal years 1978 through 1984.

AMENDMENTS

1988-Subsec. (a). Pub. L. 100–483 inserted ", acting through the Director of the Bureau of Mines," after "The Secretary".

CHANGE OF NAME

"United States Bureau of Mines" substituted for "Bureau of Mines" in subsec. (a) pursuant to section 10(b) of Pub. L. 102–285, set out as a note under section 1 of this title. For provisions relating to closure and transfer of functions of the United States Bureau of Mines, see Transfer of Functions note set out under section 1 of this title.

30 USC 1271: Enforcement
Text contains those laws in effect on February 3, 2016

From Title 30-MINERAL LANDS AND MINING
CHAPTER 25-SURFACE MINING CONTROL AND RECLAMATION
SUBCHAPTER V-CONTROL OF THE ENVIRONMENTAL IMPACTS OF SURFACE COAL MINING
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§1271. Enforcement

(a) Notice of violation; Federal inspection; waiver of notification period; cessation order; affirmative obligation on operator; suspension or revocation of permits; contents of notices and orders

(1) Whenever, on the basis of any information available to him, including receipt of information from any person, the Secretary has reason to believe that any person is in violation of any requirement of this chapter or any permit condition required by this chapter, the Secretary shall notify the State regulatory authority, if one exists, in the State in which such violation exists. If no such State authority exists or the State regulatory authority fails within ten days after notification to take appropriate action to cause said violation to be corrected or to show good cause for such failure and transmit notification of its action to the Secretary, the Secretary shall immediately order Federal inspection of the surface coal mining operation at which the alleged violation is occurring unless the information available to the Secretary is a result of a previous Federal inspection of such surface coal mining operation. The ten-day notification period shall be waived when the person informing the Secretary provides adequate proof that an imminent danger of significant environmental harm exists and that the State has failed to take appropriate action. When the Federal inspection results from information provided to the Secretary by any person, the Secretary shall notify such person when the Federal inspection is proposed to be carried out and such person shall be allowed to accompany the inspector during the inspection.

(2) When, on the basis of any Federal inspection, the Secretary or his authorized representative determines that any condition or practices exist, or that any permittee is in violation of any requirement of this chapter or any permit condition required by this chapter, which condition, practice, or violation also creates an imminent danger to the health or safety of the public, or is causing, or can reasonably be expected to cause significant, imminent environmental harm to land, air, or water resources, the Secretary or his authorized representative shall immediately order a cessation of surface coal mining and reclamation operations or the portion thereof relevant to the condition, practice, or violation. Such cessation order shall remain in effect until the Secretary or his authorized representative determines that the condition, practice, or violation has been abated, or until modified, vacated, or terminated by the Secretary or his authorized representative pursuant to paragraph (5) of this subsection. Where the Secretary finds that the ordered cessation of surface coal mining and reclamation operations, or any portion thereof, will not completely abate the imminent danger to health or safety of the public or the significant imminent environmental harm to land, air, or water resources, the Secretary shall, in addition to the cessation order, impose affirmative obligations on the operator requiring him to take whatever steps the Secretary deems necessary to abate the imminent danger or the significant environmental harm.

(3) When, on the basis of a Federal inspection which is carried out during the enforcement of a Federal program or a Federal lands program, Federal inspection pursuant to section 1252, or section 1254(b) of this title, or during Federal enforcement of a State program in accordance with subsection (b) of this section, the Secretary or his authorized representative determines that any permittee is in violation of any requirement of this chapter or any permit condition required by this chapter; but such violation does not create an imminent danger to the health or safety of the public, or cannot be reasonably expected to cause significant, imminent environmental harm to land, air, or water resources, the Secretary or authorized representative shall issue a notice to the permittee or his agent fixing a reasonable time but not more than ninety days for the abatement of the violation and providing opportunity for public hearing.

If, upon expiration of the period of time as originally fixed or subsequently extended, for good cause shown and upon the written finding of the Secretary or his authorized representative, the Secretary or his authorized representative finds that the violation has not been abated, he shall immediately order a cessation of surface coal mining and reclamation operations or the portion thereof relevant to the violation. Such cessation order shall remain in effect until the Secretary or his authorized representative determines

that the violation has been abated, or until modified, vacated, or terminated by the Secretary or his authorized representative pursuant to paragraph (5) of this subsection. In the order of cessation issued by the Secretary under this subsection, the Secretary shall determine the steps necessary to abate the violation in the most expeditious manner possible, and shall include the necessary measures in the order.

(4) When, on the basis of a Federal inspection which is carried out during the enforcement of a Federal program or a Federal lands program, Federal inspection pursuant to section 1252 or section 1254 of this title or during Federal enforcement of a State program in accordance with subsection (b) of this section, the Secretary or his authorized representative determines that a pattern of violations of any requirements of this chapter or any permit conditions required by this chapter exists or has existed, and if the Secretary or his authorized representative also find that such violations are caused by the unwarranted failure of the permittee to comply with any requirements of this chapter or any permit conditions, or that such violations are willfully caused by the permittee, the Secretary or his authorized representative shall forthwith issue an order to the permittee to show cause as to why the permit should not be suspended or revoked and shall provide opportunity for a public hearing. If a hearing is requested the Secretary shall inform all interested parties of the time and place of the hearing. Upon the permittee's failure to show cause as to why the permit should not be suspended or revoked, the Secretary or his authorized representative shall forthwith suspend or revoke the permit.

(5) Notices and orders issued pursuant to this section shall set forth with reasonable specificity the nature of the violation and the remedial action required, the period of time established for abatement, and a reasonable description of the portion of the surface coal mining and reclamation operation to which the notice or order applies. Each notice or order issued under this section shall be given promptly to the permittee or his agent by the Secretary or his authorized representative who issues such notice or order, and all such notices and orders shall be in writing and shall be signed by such authorized representatives. Any notice or order issued pursuant to this section may be modified, vacated, or terminated by the Secretary or his authorized representative. A copy of any such order or notice shall be sent to the State regulatory authority in the State in which the violation occurs: *Provided*, That any notice or order issued pursuant to this section which requires cessation of mining by the operator shall expire within thirty days of actual notice to the operator unless a public hearing is held at the site or within such reasonable proximity to the site that any viewings of the site can be conducted during the course of public hearing.

(b) Inadequate State enforcement; notice and hearing

Whenever on the basis of information available to him, the Secretary has reason to believe that violations of all or any part of an approved State program result from a failure of the State to enforce such State program or any part thereof effectively, he shall after public notice and notice to the State, hold a hearing thereon in the State within thirty days of such notice. If as a result of said hearing the Secretary finds that there are violations and such violations result from a failure of the State to enforce all or any part of the State program effectively, and if he further finds that the State has not adequately demonstrated its capability and intent to enforce such State program, he shall give public notice of such finding. During the period beginning with such public notice and ending when such State satisfies the Secretary that it will enforce this chapter, the Secretary shall enforce, in the manner provided by this chapter, any permit condition required under this chapter, shall issue new or revised permits in accordance with requirements of this chapter, and may issue such notices and orders as are necessary for compliance therewith: *Provided*, That in the case of a State permittee who has met his obligations under such permit and who did not willfully secure the issuance of such permit through fraud or collusion, the Secretary shall give the permittee a reasonable time to conform ongoing surface mining and reclamation to the requirements of this chapter before suspending or revoking the State permit.

(c) Civil action for relief

The Secretary may request the Attorney General to institute a civil action for relief, including a permanent or temporary injunction, restraining order, or any other appropriate order in the district court of the United States for the district in which the surface coal mining and reclamation operation is located or in which the permittee thereof has his principal office, whenever such permittee or his agent (A) violates or fails or refuses to comply with any order or decision issued by the Secretary under this chapter, or (B) interferes with, hinders, or delays the Secretary or his authorized representatives in carrying out the provisions of this chapter, or (C) refuses to admit such authorized representative to the mine, or (D) refuses to permit inspection of the mine by such authorized representative, or (E) refuses to furnish any information or report requested by the Secretary in furtherance of the provisions of this chapter, or (F) refuses to permit access to, and copying of, such records as the Secretary determines necessary in carrying out the provisions of this chapter. Such court shall have jurisdiction to provide such relief as may be appropriate. Temporary restraining orders shall be issued in accordance with rule 65 of the Federal Rules of Civil Procedure, as amended. Any relief granted by the court to enforce an order under clause (A) of this section [1] shall continue

in effect until the completion or final termination of all proceedings for review of such order under this subchapter, unless, prior thereto, the district court granting such relief sets it aside or modifies it.

(d) Sanctions; effect on additional enforcement rights under State law

As a condition of approval of any State program submitted pursuant to section 1253 of this title, the enforcement provisions thereof shall, at a minimum, incorporate sanctions no less stringent than those set forth in this section, and shall contain the same or similar procedural requirements relating thereto. Nothing herein shall be construed so as to eliminate any additional enforcement rights or procedures which are available under State law to a State regulatory authority but which are not specifically enumerated herein.

(Pub. L. 95–87, title V, §521, Aug. 3, 1977, 91 Stat. 504 .)

REFERENCES IN TEXT

Rule 65 of the Federal Rules of Civil Procedure, referred to in subsec. (c), is set out in the Appendix to Title 28, Judiciary and Judicial Procedure.

[1] *So in original. Probably should be "subsection".*

Senator INHOFE. And for the minute and 15 seconds that I have, I will cede that to Senator Capito.

Senator CAPITO. Thank you, Mr. Chairman.

I would again like to say that over the years, since 1977, there have been improvements of this rule that have resulted in cleaner water in and around the area that I live. I think the biggest flashpoint for me is just the lack of State cooperation on the ground, and the States that I mentioned that are the regulator. There is a concern about underground mining.

And I would like to say anecdotally, I told Senator Cardin with his visual, I would have liked to have seen the after picture of that. You mentioned all the things that these types of mining operations go through on the reclamation process at the end. You have seen some of the end products, and when done right can be a benefit to some communities for airports, schools, shopping centers, in Appalachia where we have no flat land. So there are some. If it is done right, there can be some tremendous economic benefits to this.

And just to put this in the record, in the State of West Virginia there is only active surface mining operation at present time.

With that, I yield back.

Senator INHOFE. Thank you, Senator Capito.

Mr. PIZARCHIK. Could I comment a little on that?

The Senator is absolutely right, when it is done right, it can make sense. And as far as the airports and things, there is specific provision for post-mining land uses that allows those to occur, and things are a lot better. What we also know, we have room to improve because there are things that are causing pollution that we didn't know about before.

Senator INHOFE. Thank you, Mr. Pizarchik. We will dismiss you now as the first panel.

Mr. PIZARCHIK. Thank you, Senator.

Senator INHOFE. We would like to invite the second panel to come to the panel. That will be Mr. Lanny Erdos, the Chief of the Division of Mineral Resources Management, Ohio Department of Natural Resources; Clay Larkin, a partner in Dinsmore; and Matt Wasson, Director of Programs for Appalachian Voices.

We will start with opening statements. We will recognize first Mr. Erdos.

STATEMENT OF LANNY ERDOS, CHIEF, DIVISION OF MINERAL RESOURCES MANAGEMENT, OHIO DEPARTMENT OF NATURAL RESOURCES

Mr. ERDOS. Good afternoon, Mr. Chairman.

Senator INHOFE. Good afternoon.

Mr. ERDOS. Good morning, Chairman Inhofe, Ranking Member Boxer, and members of the Committee. My name is Lanny Erdos, and I serve as Chief of the Ohio Department of Natural Resources, Division of Mineral Resources Management. I have worked for the Division for nearly 28 years, and I was appointed Chief in October 2011.

I appreciate the opportunity to testify in regard to the Stream Protection Rule proposed by the U.S. Department of Interior's Office of Surface Mining Reclamation and Enforcement. Ohio has primacy over the administration of the Surface Mining Control and

Reclamation Act, SMCRA, and consistently receives high marks on our annual evaluations from OSM for our program. Historically, Ohio DNR has had a positive working relationship with OSM. However, the process that OSM has set forth for the primacy States and the proposed Stream Protection Rule has been one-sided and not open to productive dialogue.

In November 2009 OSM offered States the opportunity to participate as a cooperating agency in the development of the Environmental Impact Statement, EIS, for the proposed Stream Protection Rule. Ohio DNR agreed to participate only as a State commenter, not as a cooperating agency. That decision was made under the previous administration, prior to me being appointed as chief. Three chapters of the initial draft EIS, which totaled 1,045 pages, were shared with the participating States, with only 24 business days for review.

Only once, in late 2010, did OSM arrange a conference call with the States to discuss chapter 2 of the draft EIS. This call served as more of a briefing to the States rather than an exchange of information or an opportunity to provide meaningful comments. Over the course of the past 4 years, following the final opportunity for State input in early 2011, OSM significantly revised the draft EIS.

The cooperating agency States sent three letters to OSM expressing their concerns with the EIS process and their role as cooperators. The first, on November 23rd, 2010, expressed concerns about the quality, completeness, and accuracy of the draft EIS, the constrained timeframes for the submission of comments on the draft EIS chapters, the reconciliation process, and the need for additional comment on the revised chapters. OSM responded to this letter on January 24, 2011, and made a number of commitments regarding continued robust participation with the cooperating agency States in the EIS development process. Shortly thereafter, OSM terminated involvement on the draft EIS with the cooperating States without explanation.

The cooperating agency States sent a second letter to OSM on July 3rd, 2013, requesting an opportunity to reengage in the EIS development process and reiterated the States' concern regarding how their comments would be used or referenced by OSM in the final draft EIS. OSM never responded to this letter.

A third letter was sent to OSM on February 23rd, 2015, by the cooperating agency States specifically outlining the States' ongoing concerns about the EIS consultation process. No response was received.

Based on experiences to date with OSM's development of the draft EIS for the Stream Protection Rule, OSM has not provided for meaningful participation with the cooperating or commenting agency States. The most recent effort by OSM to communicate with the cooperating agency States was made through a general briefing and overview of the draft EIS process in April 2015 during an Interstate Mining Compact Commission meeting in Baltimore, Maryland, a meeting which I personally attended.

The briefing consisted of a PowerPoint presentation by OSM providing overviews of the proposed rule with no opportunity for the cooperating agency States to ask questions. Unfortunately, the overview of the EIS was extremely limited, copies of the presen-

tation were not made available, and the meeting did not allow the States an opportunity to contribute to the EIS. The cooperating agency States present at the meeting communicated to OSM personnel in attendance, including OSM Director Pizarchik, that the meeting was not considered a meaningful consultation but rather, a briefing.

One provision in the proposed rule that is problematic requires written approval of Protection Enhancement Plans before a permit to mine coal can be issued. The proposed rule does not require establishment of timeframes by which the U.S. Fish and Wildlife Service must provide a complete evaluation of the proposed mining project to allow the State to move forward and/or for the advancement of the permitting process. Not allowing for conditional issuance and approval beyond established timeframes to complete necessary review is tantamount to providing the Federal Government veto power over a permit without any explanation whatsoever.

Additionally, Ohio has identified several other critical areas where State expertise would have proven to be beneficial in the development of the proposed rule.

Mr. Chairman, had States been given adequate opportunity to provide their technical expertise on the development of the draft EIS and proposed rule through a meaningful process, and OSM welcomed that input, the rule would have better accounted for the diversity in terrain, climate, biological, chemical, and other physical conditions in area subject to mining as anticipated by SMCRA. The rule would have also recognized the appropriate discretion vested by SMCRA to the primacy States that have been regulating coal mining operations in excess of 30 years.

Thank you again for the opportunity to present this testimony. I would be happy to address any questions you may have.

[The prepared statement of Mr. Erdos follows:]

Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR JAMES ZEHRINGER, DIRECTOR

Testimony of Lanny E. Erdos
Chief of the Division of Mineral Resources Management
Ohio Department of Natural Resources
Before the U.S. Senate Committee on Environment and Public Works
February 3, 2016

Good morning Chairman Inhofe, Ranking Member Boxer, and members of the Committee. My name is Lanny Erdos, and I serve as Chief of the Ohio Department of Natural Resources (DNR), Division of Mineral Resources Management. I have worked for the Division for nearly 28 years and was appointed Chief in October 2011.

I appreciate the opportunity to testify in regards to the stream protection rule proposed by the U.S. Department of the Interior's Office of Surface Mining Reclamation and Enforcement (OSM). Ohio has primacy over the administration of the Surface Mining Control and Reclamation Act (SMCRA) and consistently receives high marks on our annual evaluations from OSM for how we operate our program. Historically, Ohio DNR's Division of Mineral Resources Management has had a positive working relationship with OSM. However, the process that OSM has set forth for primacy states on their proposed stream protection rule has been one-sided and not open to a productive dialogue.

OHIO'S INVOLVEMENT IN THE PROPOSED RULE PROCESS:

Following OSM's publication of an Advance Notice Proposed Rulemaking relative to mining activities in or near streams in November of 2009, OSM offered states the opportunity to participate as cooperating agencies in the development of an Environmental Impact Statement (EIS) for the proposed stream protection rule. Ohio DNR agreed to participate only as a state commenter, not as a cooperating agency. That decision was made under the previous administration, prior to me becoming Chief. Three chapters of the initial draft EIS, which totaled 1045 pages, were shared with participating states with only 24 business days for review.

Only once, in late 2010, did OSM arrange a conference call with the states to discuss Chapter 2 of the draft EIS. Based on my 28 years of experience, this lack of correspondence was out of character for OSM. This call served as more of a briefing to the states rather than an exchange of information or an opportunity to provide meaningful comments. Over the course of the past four years, following the final opportunity for state input in early 2011, OSM significantly revised the draft EIS, including the addition of new alternatives.

The cooperating agency states[1] sent three letters to OSM expressing their concerns with the EIS process and their role as cooperators. The first, on November 23, 2010, expressed concerns about the quality, completeness and accuracy of the draft EIS; the constrained timeframes for the submission of comments on the draft EIS chapters; the reconciliation process; and the need for additional comment

[1] Alabama, Indiana, Kentucky, Montana, New Mexico, Texas, Utah, Virginia, West Virginia, Wyoming

on the revised chapters. OSM responded to this letter on January 24, 2011 and made a number of commitments regarding continued, robust participation with the cooperating agency states in the EIS development process. Shortly thereafter, OSM terminated involvement on the draft EIS with the cooperating states without explanation.

The cooperating agency states sent a second letter to OSM on July 3, 2013 requesting an opportunity to re-engage in the EIS development process and reiterated the states' concern regarding how their comments would be used or referenced by OSM in the final draft EIS, including an appropriate characterization of their comments and participation. OSM never responded to this letter.

A third letter was sent to OSM on February 23, 2015 by the cooperating agency states specifically outlining the states' ongoing concerns about the EIS consultation process. No response was received. In summary, based on experiences to date with OSM's development of the draft EIS for the stream protection rule, OSM has not provided for meaningful participation with the cooperating or commenting agency states.

The most recent effort by OSM to communicate with cooperating agency states was made through a general briefing and overview of the draft EIS process in April 2015 during an Interstate Mining Compact Commission meeting in Baltimore, Maryland, which I personally attended. The briefing consisted of a PowerPoint presentation by OSM providing overviews of the proposed rule with no opportunity for the cooperating agency states to ask questions. Unfortunately, the overview of the EIS was extremely limited, copies of the presentation were not made available, and the meeting did not allow the states an opportunity to contribute to the EIS. The cooperating agency states present at this meeting communicated to OSM personnel in attendance, including OSM Director Pizarchik, that the meeting was not considered a meaningful consultation, but rather a briefing.

KEY CONCERNS WITH THE PROPOSED RULE:

One provision in the proposed rule that is particularly problematic requires written approval of Protection and Enhancement Plans before a permit to mine coal can be issued. The proposed rule does not require establishment of timeframes by which the U.S. Fish and Wildlife Service must provide a complete evaluation of the proposed mining project to allow the state to move forward and/or for the advancement of permitting process. Not allowing for conditional issuance and approval beyond established timeframes to complete necessary reviews is tantamount to providing the federal government veto power over a permit without any explanation whatsoever.

Additionally, Ohio has identified several other critical areas where state expertise would have proven to be beneficial in development of the proposed rule, including:

- expanding water sampling parameters and site requirements and 12-months of consecutive sampling;
- requiring use of the Palmer Drought Severity Index due to the inconsistent sampling process;
- adding ephemeral stream sampling, monitoring and reclamation requirements due to limited stream flow and biological diversity;
- expanding bonding requirements, resulting in unpredictable timeframes and standards for bond release; and
- defining or expanding the definitions of "material damage" "adjacent area" and "cumulative impact area."

<u>SUMMARY OF TESTIMONY:</u>

Mr. Chairman, had states been given adequate opportunity to provide their technical expertise on the development of the draft EIS and proposed rule through a meaningful process and OSM welcomed that input, the rule would have better accounted for the diversity in terrain, climate, biological, chemical, and other physical conditions in areas subject to mining as anticipated by SMCRA. The rule would have also recognized the appropriate discretion vested by SMCRA to the primacy states that have been regulating coal mining operations in excess of 30 years.

Thank you again for the opportunity to present this testimony. I will be happy to address any questions you may have.

Senator INHOFE. Thank you, Mr. Erdos.
Mr. Larkin.

STATEMENT OF CLAY LARKIN, PARTNER, DINSMORE AND SHOHL

Mr. LARKIN. Thank you, Mr. Chairman, and thank you to the Committee.

My name is Clay Larkin. I am a partner at Dinsmore and Shohl in Lexington, Kentucky, and also serve as a senior policy advisor to the Kentucky Coal Association, or the KCA, which represents companies that mine about 90 percent of the coal mined in Kentucky.

The Stream Protection Rule is a rule in search of a problem. Although OSM has stated that the rule will help reduce offsite impacts from coal mining, by OSM's own estimates State regulators and coal miners are already doing an outstanding job of controlling these offsite impacts under existing regulations.

According to OSM's own figures, over 90 percent of sites nationwide were free from offsite impacts last year, and in some States that figure was 100 percent. Despite this track record, the proposed rule would require States to implement duplicative permit review procedures that are already addressed by other State and Federal agencies at a time when States like Kentucky are already dealing with significant budget shortfalls.

Although there are numerous problems with this rule, I want to focus today on the way in which it unlawfully conflicts with the Clean Water Act and the Endangered Species Act.

OSM, simply put, cannot regulate issues within the scope of other Federal laws pursuant to section 702(a) of SMCRA, which specifically prevents them from regulating in conflict with other environmental protection statutes and specifically mentions both the Clean Water Act and NEPA, and courts have held that that list is not exhaustive and therefore precludes them from regulating in a way that conflicts with the Endangered Species Act.

In this proposed Stream Protection Rule, OSM has failed to comply with section 702(a) of SMCRA on multiple fronts. First, the proposed rule unlawfully conflicts with the Clean Water Act. State Clean Water Act authorities already enforce Clean Water Act programs at the State level. Mining operators must navigate a burdensome and stringent permitting process under multiple sections of the Clean Water Act.

Despite this existing process which fully addresses water quality issues related to mining, OSM seeks to appoint itself as the premier water quality regulator for all water quality issues related to surface and underground coal mining. This is both illegal and impractical.

For example, OSM seeks to provide a nationwide, one size fits all definition of the term "material damage to the hydrologic balance outside the permit area." This is inconsistent with SMCRA's State primary framework, which gives primary regulatory authority to the States, not a Federal agency. There is significant diversity of hydrology and geography in different mining States that requires a State by State, site by site approach to defining, evaluating, and preventing material damage to the hydrologic balance, and States

have demonstrated that they are better positioned to address the unique water quality concerns within their borders. OSM has provided no meaningful justification for its one size fits all Federal approach.

OSM also seeks to impose a completely duplicative water quality permitting process on coal miners and State regulators in which OSM will define parameters of concern reasonably foreseeable uses of streams and then establish its own numerical criteria for those parameters of concern. This directly conflicts with section 303 of the Clean Water Act, which already provides the authority for how States are to establish water quality standards within their borders and includes both designating uses of streams and establishing water quality criteria necessary to protect those uses.

There is also section 402 of the Clean Water Act regarding effluent limitations which are imposed upon coal mining that OSM seeks to usurp in the rule as well.

In addition to section 402, the proposed rule conflicts with the section 404 permitting process, which already does what OSM is proposing to do in this rule in terms of requiring mine operators to avoid impacts to streams where possible, and where those impacts cannot be avoided choosing the least environmentally damaging practicable alternative to those impacts and then mitigating whatever impacts they create. This existing and comprehensive regulatory program under section 404 of the Clean Water Act does not contain any gaps that the State Mining Regulatory or OSM must fill. As such, OSM lacks authority to regulate in this area.

With respect to the Endangered Species Act, the proposed rule raises two primary concerns: first, it extends the protection and enhancement plan and other Endangered Species Act review criteria within the SMCRA permitting process to cover both listed and nonlisted species, giving OSM itself a power that Congress never saw fit to give it with respect to species that are only proposed for listing, and it gives the Federal Fish and Wildlife Service a veto authority over State issued mining permits, in contravention of SMCRA.

[The prepared statement of Mr. Larkin follows:]

Testimony of Clay Larkin
Senior Policy Advisor
Kentucky Coal Association
before the
United States Senate Environment and Public Works Committee

The Stream Protection Rule: Impacts on the Environment and Implications for Endangered Species Act and Clean Water Act Implementation

February 3, 2016

Good Morning. I am Clay Larkin, Senior Policy Advisor to the Kentucky Coal Association ("KCA") and an attorney with the law firm of Dinsmore & Shohl. KCA's member companies produce approximately 90% of the coal mined in Kentucky and employ a similar percentage of the approximately 10,000 workers directly engaged in the mining of coal in Kentucky.

The so-called "Stream Protection" Rule is not really about protecting streams. It is about completely rewriting OSM's existing regulatory program, replacing or amending some 465 existing regulations, imposing significant regulatory burdens on coal miners, and creating an immense financial and administrative burden for the primacy states that administer SMCRA. This is all unnecessary, and will serve only to cause thousands of miners to lose their jobs, and states to lose billions in tax revenue from coal production.

The "Stream Protection Rule" is a rule in search of a problem. Although OSM has stated that the rule will help reduce "off-site" impacts from coal mining, by OSM's own estimates state regulators and coal miners are doing an outstanding job of controlling these off-site impacts under existing regulations. According to OSM's own figures, over 90% of sites nationwide were free from off-site impacts last year, and in some states that figure was 100%. Despite this track record, the rule would require states to implement duplicative permit review procedures that are already addressed by other state and federal agencies, at a time when states like Kentucky are already dealing with significant budget shortfalls.

Although there are numerous problems with the rule, as demonstrated in the hundreds of pages of written comments OSM has received in opposition to the rule, I would like to focus today on the ways in which the rule unlawfully conflicts with the Clean Water Act and Endangered Species Act, and how OSM failed to comply with its obligations under the National Environmental Policy Act. Because the rule conflicts with these statutes, OSM must withdraw it and start over.

OSM Cannot Regulate Issues Within The Scope of Other Federal Laws

OSM's authority to regulate is conferred by SMCRA. Section 702(a) of SMCRA prevents OSM from regulating in a way that conflict with other environmental protection statutes. SMCRA specifically mentions that OSM's regulations cannot conflict with the Clean Water Act or NEPA, but courts have also held that the list of statutes in Section 702(a) is not exhaustive, so OSM also cannot regulate in a way that is inconsistent with the ESA.

In the Stream Protection Rule, OSM has failed to comply with Section 702(a) of SMCRA on multiple fronts. First, it is attempting to create a wholly new water regulatory program that conflicts with the Clean Water Act and the thorough permitting process under that statute which is already stringently administered by state water regulators and EPA. Second, OSM has unlawfully granted an unprecedented authority to the U.S. Fish & Wildlife Service to "veto" coal mining permits, without providing any meaningful recourse for coal miners to challenge Fish & Wildlife's determinations. Third, OSM has failed to meaningfully engage with state regulators, in violation of NEPA.

The Proposed Rule Unlawfully Conflicts with the Clean Water Act

State CWA authorities already enforce CWA programs at the state level. Mining operators must navigate a burdensome and stringent permitting process under multiple sections of the Clean Water Act. Once these permits are obtained, they are stringently enforced by state water quality regulators. Despite this existing process, which fully addresses water quality issues related to mining, OSM seeks to appoint itself the premier water quality regulator for all water quality issues related to surface and underground coal mining. This is both illegal and completely impractical.

A Nationwide Approach is Illogical and Unnecessary

For example, OSM seeks to provide a nationwide, one-size-fits-all definition of the term "material damage to the hydrologic balance outside the permit area." This is inconsistent with SMCRA's state primacy framework, which gives primary regulatory authority to the states, not a federal agency. SMCRA wisely grants states primacy in this matter because a federal definition is unworkable. There is a significant diversity of hydrology and geography in different mining states that requires a state-by-state, site-by-site approach to defining, evaluating, and preventing material damage to the hydrologic balance. States have demonstrated that they are better positioned to address the unique water quality concerns within their borders. OSM has provided no meaningful justification for a federally mandated approach to this issue.

The Proposed Rule Unlawfully Usurps State Water Quality and NPDES Permitting Authority

OSM also seeks to impose a completely duplicative water quality permitting process on coal miners and state mining regulators. Under the proposed rule, mining regulators must determine all reasonably foreseeable uses of streams, identify "parameters of concern," and establish numerical material damage criteria for "parameters of concern." This directly conflicts with Section 303 of the CWA, which grants authority to the states to establish water quality standards, including both the establishment of designated uses of streams and the water quality criteria necessary to protect those uses.

The proposed rule also unlawfully duplicates the work already done by state water quality regulators under CWA Section 402's NPDES permitting program. CWA Section 402 permits not only impose effluent limitations designed to protect water quality, but also stringent technology-based effluent limitations based on available control technologies that can reduce pollutant quality to a degree that is more than protective of water quality for certain parameters. NPDES permits also contain monitoring and reporting requirements, and special conditions as necessary to protect streams. NPDES permits are also stringently enforced by state water quality regulators who have expertise in the requirements of the CWA.

Simply put, the protection of water quality is already comprehensively addressed by the CWA and state water regulators. Every water-quality based aspect of the proposed rule's concept of material damage to the hydrologic balance is already addressed via the CWA's NPDES permitting program. OSM cannot impose its own duplicative and conflicting water quality requirements without creating an unlawful conflict with the Clean Water Act.

The Proposed Rule's Unlawfully Duplicates the CWA Section 404 Permitting Process

The proposed rule would impose numerous new requirements on mining operations that cause temporary impacts to streams, such as mine through operations. Under the proposal, among other things, the permittee must establish a 100 foot buffer on each side of a stream to be mined through, restore post-mining drainage patterns to pre-mining condition, pose a separate "ecological function" bond, and comply with a list of mitigation requirements established by OSM. The problem with this approach is that the mining through of streams, or any other placement of material in streams, is already comprehensively regulated under Section 404 of the Clean Water Act, which is administered by two federal agencies, EPA and the Army Corps, with input from state water quality regulators. The Section 404 permitting program already restricts impacts to streams, requires miners to adopt the least environmentally damaging practicable alternative when stream impacts cannot be avoided, and comprehensively governs mitigation of stream impacts. This existing and comprehensive regulatory program contains no "gaps" that mining regulatory authorities must fill. As such, OSM lacks authority to regulate in this area, and lacks the expertise to effectively do so even if it could.

The Proposed Rule Conflicts with the Endangered Species Act

In the proposed rule, OSM has created conflict with the ESA by granting to itself authority that Congress has never given it under the ESA or SMCRA. The proposed rule also grants to the Fish & Wildlife Service a veto that agency does not possess under any statute.

Endangered species are already adequately protected by existing surface mine permitting regulations and the ESA. Under SMCRA's existing regulations, states collect fish and wildlife resource information relating to listed species for proposed operations and provide it to the Fish and Wildlife Service upon the Service's request. Consistent with SMCRA, the state mining regulatory authority, after receiving input from the Service, makes a final decision to issue the permit. This approach has several benefits. It limits unnecessary involvement by the Service, which is already responsible for reviewing fish and wildlife information from numerous agencies, and instead allows the Service to concentrate only on those projects with a realistic potential to impact endangered species. This existing process also allows primacy states to maintain their appropriate statutory role as the final decision-maker with respect to SMCRA permit applications. The proposed rule completely changes this process, unlawfully and unnecessarily expanding the role of the federal Service in state permitting actions, and removing the final decision-making authority of state regulatory agencies.

The Proposed Rule Unlawfully Expands Service and OSM Jurisdiction Beyond Any Statutory Authority

Under the proposed rule, the state mining regulatory authority may not grant a permit if there is a likely potential to jeopardize species "listed" under the ESA, or species *"proposed for listing."* The problem with this is that OSM can only require compliance with existing law. SMCRA does not provide any authority for OSM to establish its own threatened and endangered species protection program that includes both listed species and species *proposed* for listing. And the ESA's provisions applicable to mining permits issued by primacy states only apply to listed species. Thus, in the proposed rule, OSM is attempting to give to itself authority that Congress never gave it, either in the ESA or SMCRA.

The Proposed Rule Grants the Service an Unlawful Veto Authority

Of even greater concern, the proposed rule would allow the federal Fish and Wildlife Service to effectively "veto" any state-issued mining permit where it is not 100% satisfied with the protection and enhancement plan provided in the permit application. Under current regulations, the state permitting agency, after any necessary input from the Service in cases where listed species are involved, makes a final determination as to whether the permittee is taking adequate measure to protect species and habitat. Under the proposed rule, however, the *federal Service*, and not state mining regulators, must "approve" the protection and enhancement plan. Without such federal approval, the state mining permit could not issue. This is clearly an unlawful interference in the decision-making of SMCRA primacy states.

To provide some perspective on the extent to which this provision would federalize what should be a state decision to issue a mining permit, consider that this veto authority would apply to all mining activity within the range of the Northern Long-Eared Bat, which covers most of the eastern and central United States. This would give the Service final authority to veto nearly every mining permit in the Appalachian and Interior regions.

Perhaps more troubling, the proposed rule does not provide any meaningful limit on the Service's veto authority or provide any meaningful way for permit applicants to challenge the Service's veto. Although the proposed rule purports to contain a dispute resolution provision, this "appeals" process does not meet basic notions of due process. Under the so-called dispute resolution process, if FWS withholds approval, effectively vetoing the permit, FWS itself decides whether this decision was correct. There is no provision for involvement of the Department of Interior, or even the courts, in this process. The proposed rule therefore runs afoul of what Congress intended in SMCRA, by placing FWS in the role of final decision-maker on most mining permits across the country.

OSM Failed to Comply With NEPA

The legal deficiencies in the proposed rule are readily apparent to many primacy state regulators. Had OSM engaged in meaningful dialogue with the states when crafting the proposed rule, it is possible that these problems could have been identified and addressed, allowing OSM propose a meaningful yet appropriately tailored rule. But OSM did not engage in meaningful discussion with the states. As others will discuss at this hearing, and as states explained in their comments opposing this proposal, the state regulatory authorities – who must ultimately implement this rule – were effectively shut out of the decision-making process. This violated OSM's obligations with respect to "cooperating" and "commenting" agencies under NEPA.

Despite freezing state regulators out of the rulemaking process, OSM has placed an enormous burden on state regulators during a time of tremendous budget pressure. For example, in my state of Kentucky, to have any hope of resolving billions of dollars in unfunded state employee pension liability, state agencies must reduce their budgets. Yet to effectively meet the requirements of the proposed rule, the mining regulatory authority would have to significantly increase its staff, primarily to include water quality specialists whose jobs are already being done by our state's Division of Water. All to implement a rule that unlawfully conflicts with other federal statutes, and is aimed at a problem OSM itself recognizes does not exist.

Coal miners in Kentucky, and throughout America, live and work in the coalfields, and support responsible practices that protect the environment. They do not, however, support duplicative regulations, and unfunded federal mandates like the Stream Protection Rule. The rule should be withdrawn.

Thank you for allowing me the opportunity to testify before this Committee on behalf of the Kentucky Coal Association. I am happy to answer any questions that you may have.

Senator INHOFE. Thank you.
Mr. Wasson.

STATEMENT OF MATT WASSON, DIRECTOR OF PROGRAMS, APPALACHIAN VOICES

Mr. WASSON. Thank you, Chairman Inhofe, Ranking Member Boxer, Senator Capito, and other members of the Committee for the opportunity to speak today. I hope my testimony is going to make clear to this Committee that the people, the wildlife, and landscapes of Appalachia cannot afford any more delays in finalizing rules to rein in the damage caused by mountaintop removal coal mining.

In preparing this testimony, I reviewed the statements that dozens of residents of coal mining communities provided to OSM last fall in support of a strong Stream Protection Rule. There are a lot of reasons local residents gave for supporting a strong rule, but five general themes emerged in comments of many coalfield residents across many different States.

The first theme was simply the intolerable scale of damage to streams that has occurred under the existing rule. Almost every commenter had witnessed the pollution or obliteration of streams and springs where they used to swim, fish, and drink water. Gary Garrett of Clairfield, Tennessee, wrote to OSM: "It's gone! What once was a gathering spot for many locals is no longer and will never be again. The cold, crystal clear, mountain water that brought many folks with empty water jugs in hand to fill to a small mountain stream which once flowed down Old Standard Hill in the Clairfield area of Claiborne County, Tennessee, is now covered up."

That is just one example of many powerful statements from local residents.

A second theme brought up by many commenters was their concern about threats to their health, specifically the high rates of cancer and other diseases that are strongly correlated with living near coal mines in Appalachia. Based on a growing body of scientific evidence, these are legitimate concerns. In the past decade, more than 20 different studies published in peer reviewed scientific journals and authored by more than 40 different researchers have demonstrated pervasive impacts on the health, well-being, and life expectancy of people living near mountaintop removal and other types of coal mines in Appalachia.

The result of all these health impacts is that life expectancy for both men and women actually declined between 1997 and 2007 in Appalachian counties with a lot of surface mining. In 2007 life expectancy in the five Appalachian counties with the most surface mining was comparable to that in developing countries like Iran, Syria, El Salvador, and Vietnam.

A third theme in the comments of local residents was the need to empower citizen involvement and enforcement of mining and clean water acts that, in their experience, State agencies have been unwilling or unable to enforce. Citizen enforcement has been the only backstop to protect Appalachian streams in States like Kentucky, where Clean Water Act violations have occurred at staggering levels under the noses of State regulators.

Even more concerning in that State is the brazen pattern of falsifying records that coal companies employed to avoid accountability under the Clean Water Act. For years, fraud went undetected by State regulators until citizen enforcement actions shined a light on, in the words of Kentucky's largest newspaper, the State's "failure to oversee a credible water monitoring program by the coal industry."

The fourth thing you might want to talk about was the need for strong environmental rules to support economic revitalization. Many commenters expressed their concern that continuing to sacrifice their region's natural capital to benefit coal companies' bottom lines is a poor long-term investment for their communities.

Please make no mistake that we have grave concerns about OSM's approach to writing this rule. By abandoning the 1983 stream buffer zone language, there is no longer a bright line rule that prohibits the filling of intermittent and perennial streams by waste and debris from surface mining operations. We acknowledge, however, that the old rule was never effectively enforced by States, which were all too willing to rubber stamp variances at the request of mining companies.

By eliminating clear buffer zone language, however, OSM bears a heavy burden to ensure the other provisions of this rule will end the wholesale destruction of Appalachian streams and mountains that has torn communities and landscapes apart for generations and is what led to the multi-agency MOU and action plan that initiated this rulemaking in the first place.

We believe that constructive participation in the rulemaking process, rather than intimidation and obstruction, is the appropriate route for community and environmental advocates for State regulatory agencies and for Congress to take as well.

Thank you.

[The prepared statement of Mr. Wasson follows:]

Matt Wasson, Ph.D.

Director of Programs, Appalachian Voices

Testimony on "Implications and environmental impacts of the Office of Surface Mining's proposed Stream Protection Rule as it relates to the Endangered Species Act and Clean Water Act"

Senate Committee on Environment and Public Works
February 3, 2016

Thank you Chairman Inhofe, Ranking Member Boxer and members of the committee for the opportunity to testify about the implications and environmental impacts of the Stream Protection Rule (SPR). I hope my testimony today will impress upon this committee the high cost the people, wildlife and landscapes of Appalachia will pay for any delay in finalizing rules that could rein in the damage caused by mountaintop removal coal mining. I also hope to counter some of the alarmist claims about potential coal industry job losses that have surrounded the debate about the SPR since it was first announced in 2009.

I am the Director of Programs at Appalachian Voices, a non-profit organization dedicated to protecting the land, air, water and people of the Southern and Central Appalachian region. Beginning with my doctoral research at Cornell University on the impacts of acid rain on birds, I have spent much of the last 20 years involved in research on the mining, processing and combustion of coal. Appalachian Voices is a member of the Alliance for Appalachia, a coalition of 15 organizations working to end mountaintop removal coal mining and bring a just and sustainable future to Central Appalachia. The collective membership of Appalachian Voices and other Alliance for Appalachia partners spans the coalfield region and beyond and is comprised of individuals from all walks of life, including former coal-miners and Appalachian families with roots six or more generations back on the same piece of land.

I want to be clear that I am not here to support every detail of OSMRE's draft rule or every decision the agency made in drafting it. Appalachian Voices believes the proposed rule represents, at best, two steps forward and one step back. But any discussion of the "Implications and environmental impacts of the Office of Surface Mining's proposed Stream Protection Rule" needs to start with one basic fact: the permitting and enforcement regime that has been in effect since 1983 is not working, and indeed has never worked to protect the health of streams, communities and wildlife in Central Appalachia.

We support this rulemaking because we agree with OSMRE that existing rules are failing to prevent serious and unmitigated environmental harm from occurring. The rule is an update of the 1983 Stream Buffer Zone Rule, based on over 30 years of updated science and local knowledge of the impacts of mountaintop removal. Among other things, this new rule will:

- Define "material damage to the hydrologic balance" a term previously used but never clearly defined, and therefore difficult to enforce,
- Require improved collection of chemical and biological data before and during mining, and
- Ensure protection and restoration of streams, including hydrologic form and ecological function, and related resources.

Despite grave concerns that the rule does not go far enough to protect Appalachian streams and communities, and in some ways may even be a step back, our approach has been to provide input to OSMRE on how the rule should be improved. We believe that productive participation in the rulemaking process, rather than intimidation and obstruction, is the appropriate route for state regulatory agencies and Congress to take as well.

As OSMRE states in its preamble, an important impetus for issuing this rule is that it helps fulfill the agency's responsibilities under a multi-agency memorandum of understanding (MOU) designed to "significantly reduce the harmful environmental consequences of surface coal mining operations in six Appalachian states." Thus, while the agency decided to fulfill its obligation by issuing a rule with nationwide applicability, there should be no mistake that a goal of this rule must be to reduce the damage caused by mountaintop removal and related forms of large-scale surface coal mining in Appalachia.

Mountaintop removal, as the term has long been used in the communities where it occurs, refers to the practice of large-scale surface coal mining in the steep terrain of the Central Appalachian coalfields. In conventional usage, the meaning of mountaintop removal is broader than the narrow definitions often used by state agencies and defined in the definitions section of the SPR. Regardless of what terminology regulators use to classify them, these extremely destructive types of surface coal mining devastate both the natural ecosystems of the Appalachian Mountains and the communities and families who have lived on their land for generations. Mountaintop removal is responsible for the destruction of over 500 mountains and approximately 2000 miles of stream channels across Central Appalachia.

Appalachian Voices has members, staff, and board members who are from and who currently live in areas that are impacted by mountaintop removal coal mining. In our work, we strive to listen closely to those who know first-hand the inadequacies and consequences of the existing regulatory regime, as these perspectives are essential in informing decisions about whether and how to improve it. To ensure that those voices are heard in this hearing today, I have summarized the testimony of dozens of residents of Appalachian mining communities who submitted comments to OSMRE in support of a strong Stream Protection Rule last fall. Other than a universal sense of urgency for federal agencies to finally halt the practice of mountaintop removal, there were five major themes that showed up in the comments of local residents. Those themes were that a strong Stream Protection Rule is necessary because of:

1. Unacceptable damage to streams and wildlife: under the existing rules, people have witnessed the streams and springs where they used to swim, fish and drink water be polluted or destroyed on a massive scale over the last three decades since the SMCRA's rules on mining near streams were last (legally) updated;

2. Significant threats to human health: people are concerned about high rates of cancer and other diseases that are strongly correlated with living near coal mines in Appalachia and want stronger rules to reduce air and water pollution that can threaten their health;

3. Need to support citizen involvement and enforcement: people do not believe that state agencies that enforce SMCRA and the Clean Water Act will ever enforce the law adequately without strong new rules for water quality monitoring and citizen enforcement;

4. Need to support economic diversification: as the coal industry in Appalachia declines, many local people believe that economic growth depends on diversifying their economy and protecting the natural resources like clean water and wildlife that could underpin future economic development - and they believe that continuing to sacrifice their natural capital to benefit coal companies' bottom lines is a poor long-term investment for their communities;

5. Need to update rules on bonding: as coal markets remain stuck in the doldrums and more and more companies are declaring bankruptcy, people believe it is necessary to increase bonding requirements to ensure that companies will meet their environmental cleanup obligations, particularly as bankrupt companies have clearly demonstrated their intent to prioritize large bonuses for executives over meeting responsibilities to their workers and the environment.

Following are examples of specific complaints voiced by local residents exemplifying each of these themes, and an evaluation of those concerns in the light of recent scientific research, energy market trends and actions of state regulatory agencies.

Theme 1: Unacceptable damage to streams and wildlife

"It's gone! What once was a gathering spot for many locals is no longer and will never be again. The cold, crystal clear, mountain water that brought many folks with empty water jugs in hand to fill to a small mountain stream which once flowed down "Old Standard Hill," in the Clairfield area of Claiborne County, Tennessee, is now covered up. A priceless non-renewable resource is gone forever! The stream that supplied many with drinking water and many other uses has been destroyed, covered up, and will never be what it once was."

- Gary Garrett, Clairfield, TN.

"From the time I was a child, I can remember swimming, fishing, and camping on the Powell River. I can also remember times when those activities were not possible due to mining runoff and accidents in the Powell River's watershed that had devastated the ecosystem, wiping out fish populations and polluting the water to the point that it was unhealthy to swim in. My hope is that the Stream Protection Rule will ensure our rivers and streams are healthy for all the life that depends on them – including us, and for the enjoyment and economic resiliency of our region's people for years to come."

- Adam Malle, Big Stone Gap, VA

Given how comprehensively OSMRE conducted its literature review of scientific studies around the impacts of mining on streams, there is little need to add more here to illustrate that the concerns of these residents are well founded. As OSMRE stated in the rule:

> "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."

According to one of the studies OSMRE reviewed, a groundbreaking study published by 13 leading aquatic ecologists in 2010 in *Science*, the nation's premier scientific journal, "Clearly, current attempts to regulate [mountaintop removal mining] practices are inadequate. Mining permits are being issued despite the preponderance of scientific evidence that impacts are pervasive and irreversible and that mitigation cannot compensate for losses."[1]

The important question raised by the findings of this and many other studies is whether the proposed Stream Protection Rule goes nearly far enough to fulfill its stated goal of "Minimiz[ing] the adverse impacts of surface coal mining operations on surface water, groundwater, fish, wildlife, and related environmental values, with particular emphasis on protecting or restoring streams and aquatic ecosystems."

Our concern is that this rule is overly reliant on mitigation measures like stream replacement that have been shown to almost always fail to restore stream function. For instance, researchers at the University of Maryland published a peer-reviewed study in 2014 that synthesized information from 434 stream mitigation projects from 117 permits for surface mining in Appalachia[2]. The study evaluated the success of both stream restoration and stream creation projects and concluded that "the data show that mitigation efforts being implemented in southern Appalachia for coal mining are not meeting the objectives of the Clean Water Act to replace lost or degraded streams ecosystems and their functions." Astoundingly, the study found that, "97% of the projects reported suboptimal or marginal habitat even after 5 years of monitoring."

Because the proposed SPR allows for mining activities, including waste disposal, in streams, it is actually less stringent than the 1983 rule it replaces in this regard. The 1983 rule prohibited mining disturbances within 100 feet of streams and prohibited damage to streams by mountaintop removal mining. In practice, however, states have routinely granted variances to the 1983 Stream Buffer Zone rule, allowing valley fill construction and other mining impacts to streams on a regular basis. This is often done by allowing companies to remediate other areas of streams that have already been degraded as a substitution for the stream miles they will bury or otherwise damage.

While it does not include a stream buffer zone requirement, the SPR does provide a number of needed protections for streams in Appalachia - assuming OSMRE selects one of the more restrictive alternatives it proposed in the draft. New requirements include enhanced baseline monitoring data for both surface and groundwater. The availability of such data will make it easier to identify damage caused by mining.

Under existing regulations, coal companies too often escape liability for damage to waterways because there is no baseline data to prove pollutants were not present before mining began. The draft rule also includes a definition of "material damage to the hydrologic balance", which was never previously defined. Clarifying language like this is an important part of making sure that rules are enforceable on the ground.

The protections to streams and wildlife provided by the rule could be strengthened in several ways. First, the SPR could reinstate two key provisions of the 1983 rule: first, mining within 100 feet a stream should be prohibited if it will adversely affect the stream, and second, that mines receiving a variance from approximate original contour are prohibited from damaging natural watercourses. The enhanced monitoring requirements could be further strengthened by requiring monitoring directly at wastewater outfalls, which would better allow determination of which mine operator is responsible for pollution. The definition of material damage to the hydrologic balance should be made consistent with the Clean Water Act by stating that to "preclude any designated surface-water use" means to "partially or completely eliminate or significantly degrade" those uses.

Theme 2: Significant threats to human health

> *"Far too many studies have shown the detrimental effects of mining pollution and sedimentation on wildlife. In fact, many recent emerging studies have linked the process of mountaintop removal coal mining with negative health impacts, like birth defects. This Stream Protection Rule would reduce coal mining's impact on the environment, and would reduce its impact on human health."*
> - Roy Crawford, Whitesburg, KY

Local residents have good reason to worry about the impacts of nearby mines on their health. Evidence of pervasive impacts on the health, well-being and life-expectancy of people living near mountaintop removal and other types of coal mines in Appalachia has been published over the last ten years in more than 20 different scientific studies authored by more than 40 different researchers.[1, 3-21]

What is so notable about the science linking mountaintop removal to elevated death rates and poor health outcomes is not the strength of any individual study, but rather the enormous quantity of data from independent sources that all point toward dramatic increases in rates of disease and decreases in life expectancy and physical well-being.

Recent studies have associated mountaintop removal and other forms of coal mining in Appalachia with increased rates of:

- Chronic respiratory and kidney disease,
- Low birth weight,
- Deaths from cardiopulmonary disease,
- Hypertension,
- Lung cancer,
- Hospitalizations
- Unhealthy days (poor physical or mental health or activity limitation)

The net result of these health impacts is illustrated in an analysis of data published by the Institute for Health Metrics and Evaluation in 2011. Life expectancy for both men and women actually declined between 1997 and 2007 in Appalachian counties with the most strip mining, even as life expectancy in the U.S. as a whole increased by more than a year. In 2007, life expectancy in the five Appalachian counties with the most strip mining was comparable to that in developing countries like Iran, Syria, El Salvador and Vietnam (see chart below).

Status and Trends in Life Expectancy among the Five Appalachian Counties with the Most Strip Mining

	County	life expectancy in 2007 (years)	Change: 1997 to 2007 (years)	Percentile rank of U.S. Counties	Closest ranked countries
Men	Boone, WV	69.9	-0.8	95%	Iran, Paraguay, Lebanon
	Perry, KY	68.4	-1.5	99%	Indonesia, Morocco, Egypt
	Logan, WV	68.9	-0.8	98%	Romania, Indonesia, Samoa
	Pike, KY	68.7	-0.9	98%	Colombia, Hungary, Indonesia
	Mingo, WV	68.7	-0.4	98%	Colombia, Hungary, Indonesia
	U.S. Average	*74.2*	*1.5*		*Denmark, Portugal, Kuwait*
Women	Boone, WV	76.7	-1.5	95%	Latvia, Qatar, Armenia
	Perry, KY	76.6	-0.5	95%	Armenia, Venezuela, Malaysia
	Logan, WV	76.4	-0.8	97%	Colombia, Syria, Viet Nam
	Pike, KY	76.3	-0.9	97%	Bulgaria, Syria, Viet Nam
	Mingo, WV	75.9	-0.8	98%	El Salvador, Nicaragua, Syria
	U.S. Average	*79.7*	*0.5*		*Portugal, Puerto Rico, Kuwait*

Despite this overwhelming amount of peer-reviewed scientific data, however, regulatory agencies in Appalachian states have so far refused to consider these new studies in assessing the impact that permitting new mountaintop removal mines could have on the health of nearby residents.

Theme 3: Need to support citizen involvement and enforcement

> *"I am in support of a strong federal rule due to the negligence of our state enforcement. For example, in Kentucky, Frasure Creek Mining submitted more than 100 false water data monitoring reports to the Energy and Environment Cabinet. They were only held accountable for these violations once citizen groups became engaged in a lawsuit against the company."*
> - Ada Smith, Pound, VA

> *"The coal companies need to monitor their impacts to the water more closely. These companies that come out and do water sampling for the mines are not truthful. It was reported in the Williamson Daily News that a water testing company had altered the water monitoring data."*
> - Donna and Charlie Branham, Lenore, Mingo County, WV

A pervasive sentiment in the comments of citizens of mine impacted communities was a distrust in the ability and willingness of state agencies to enforce regulations opposed by the industry they regulate. It is this frustration that has led hundreds of residents of coal mining communities to participate in citizen water monitoring and enforcement programs like the Appalachian Citizens Enforcement (ACE) Project, a project of the Alliance for Appalachia that equips everyday people with the knowledge, instruments, and

professional support to monitor local waterways and protect them by pursuing enforcement actions under the Clean Water Act.

One of the important things the proposed SPR does (that leads many local citizens to support the rule despite its many drawbacks) is that it improves the prospects for citizen enforcement of SMCRA regulations by:

- Requiring more extensive monitoring of stream flow and chemical parameters, including total dissolved solids, major anions and cations, selenium, aluminum, and conductivity (information that is essential to establish baseline conditions and monitor adverse impacts after mining begins);
- Requiring biological monitoring of benthic macroinvertebrates to the genus level, including annual use of a multimetric bioassessment protocol and stream condition index score to determine whether mines are causing harm to stream uses.

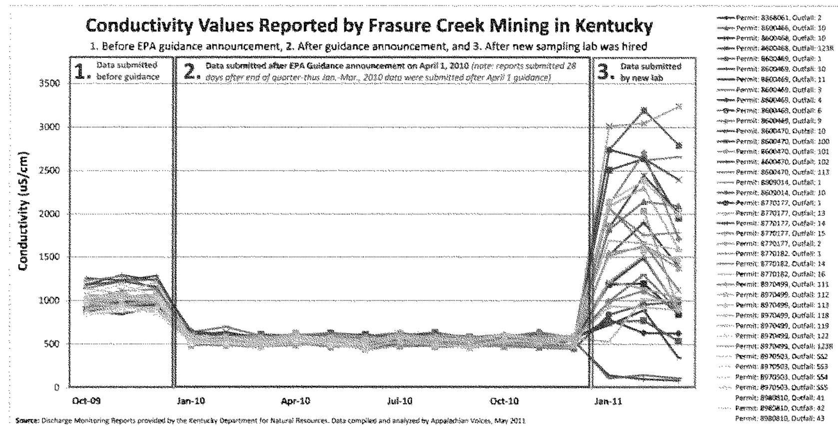
To better understand why provisions that support citizen enforcement are so important to residents of mine-impacted communities in Appalachia, it helps to look at the recent history of Clean Water Act enforcement in the region. Appalachian Voices and our allies were inspired to develop the ACE project in 2010 when we discovered two significant barriers to our efforts to protect citizens and communities from water pollution and other impacts of mountaintop removal coal mining in Kentucky. After beginning a project to document Clean Water Act violations by coal companies we realized that the state routinely declined to take enforcement actions against coal companies who reported violations of permitted effluent limits in their discharge monitoring reports (DMRs). We uncovered thousands of exceedances by the state's largest mining companies for which the Kentucky Environment and Energy Cabinet had failed to issue violations.

To make matters worse, while reviewing DMRs from the three largest surface coal mining companies in Kentucky at that time, we found evidence that all three companies were submitting false data to the Kentucky Energy & Environment Cabinet. The falsifications largely consisted of large amounts of data duplicated from one reporting quarter to the next. In some cases, the falsifications were so brazen that entire reporting sheets were re-submitted with only the monitoring dates changed and the signature date for the company management was crossed out and hand-corrected. An editorial in the Lexington Herald-Leader summed up the story in December, 2009:

> "The environmental groups uncovered a massive failure by the industry to file accurate water discharge monitoring reports. They filed an intent to sue which triggered the investigation by the state's Energy and Environment Cabinet. Also revealed was the cabinet's failure to oversee a credible water monitoring program by the coal industry.
>
> "In some cases, state regulators allowed the companies to go for as long as three years without filing required quarterly water-monitoring reports. In other instances, the companies repeatedly filed the same highly detailed data, without even changing the dates. So complete was the lack of state oversight it's impossible to say whether the mines were violating their water pollution permits or not."[22]

As a result of our lawsuit, the state ultimately imposed fines on these two coal companies for violations that ranged from "Failure to maintain required records" to "Degrading the waters of the Commonwealth."

However, the companies have never been held accountable (or seriously investigated) for a remarkably suspicious pattern of water monitoring results reported to the state. In April 2010, the EPA released a new conductivity guidance for Central Appalachian streams. Conductivity is a useful measurement for stream health, indicating a relative amount of metals and salts present in a stream. In January 2010, both ICG and Frasure Creek Mining's reported conductivity values dropped suddenly and precipitously by more than half, coincidently bringing them into compliance with the new guidance (see chart below).



Once these problems were brought to light, the companies began submitting more truthful data. Consequently, their rate of permit limit violations for pollutants such as manganese and iron, once almost non-existent, rose substantially. This clearly shows that the false data submissions were covering up real on-the-ground pollution being discharged into public waterways.

As we suspected, those paltry fines were not sufficient to deter future similar violations. Last year, we discovered that Frasure Creek had once again begun duplicating their DMRs. Shielded by bankruptcy proceedings in 2013, we were only able to bring a case for duplications and other violations from 2014 and 2015. This time, the state pursued enforcement more aggressively, and welcomed our input during settlement discussions. A settlement, which included up to $6 million in fines, was reached on the last day of former Governor Beshear's administration. Shortly after, the new Kentucky Governor, Matt Bevin, appointed Charles Snavely, a form ICG vice president during the time ICG was falsifying CWA reporting, as the new head of the Energy and Environment Cabinet.

Unfortunately, this is not an isolated experience. In 2014, an employee at a state certified wastewater monitoring laboratory in West Virginia pleaded guilty to conspiracy to violate the Clean Water Act. The employee worked at Appalachian Labs, which monitored wastewater outfalls at over 100 mines across the

state. The employee admitted to diluting samples, among other measures taken, to bring samples into compliance with the CWA. Through the court proceedings, it became clear that the employee did not act alone and stated that coal companies pressured laboratories to provide compliant samples. When this story broke, Appalachian Voices was contacted by several West Virginia residents claiming, through their own experiences, that such practices were commonplace within the coal industry in West Virginia.

As a means to address the inadequacy of state enforcement of existing mining regulations, Appalachian Voices and other citizens' groups have pursued petitions to withdraw state authority over mining laws. In 2014, Appalachian Voices signed onto a 733 petition, requesting that the Department of the Interior withdraw West Virginia's approved SMCRA program. Among the various issues listed, the petition includes:

> "[West Virginia Department of Environmental Protection] regularly issues permits that fail to list outstanding SMCRA and Clean Water Act (CWA) violations. SMCRA makes plain that permits may not be issued to applicants with outstanding violations except in certain limited circumstances. . . an applicant is explicitly blocked from receiving and additional permit if one of its existing operations is in violation of environmental laws unless the operator submits proof that it has either abated or is currently abating the problem. WVDEP routinely issues SMCRA permits to companies with outstanding SMCRA violations. According to WVDEP's own records, since 1990 418 new permits have been issued to companies whose subsidiaries have outstanding SMCRA violations."

Similar petitions exist for the removal of state National Pollutant Discharge Elimination System (NPDES) programs in West Virginia, Kentucky and Virginia. Along with the data falsification cases mentioned previously, other CWA compliance issues highlighted include:

- failure to require NPDES permits for point-sources pollutant discharges at bond released mines, bond forfeited mines, and abandoned mines;
- failure to use numeric effluent limits for mines actively discharging into impaired waterways;
- failure to consider existing water quality when reissuing NPDES permits;
- failure to issue permits protective of narrative water quality standards.

The Stream Protection Rule could help to address agency inaction, and improve the relationship between Central Appalachian residents and the agencies that are supposed to be serving those communities, but several additional improvements to the SPR are necessary. The SPR should clarify that coal mining operations must comply with water quality standards and that these standards are directly enforceable under SMCRA. Furthermore, the SPR should clarify that citizens can enforce this requirement. Citizen enforcement of the CWA has been crucial to protecting public water from coal mining pollution in Central Appalachia. That ability should be strengthened.

Theme 4: Need to support economic diversification

"We need clean streams to encourage businesses, including those associated with tourism, to come to our area to provide the jobs that will give us a better overall quality of life. No one wants to bring his or her family to a place where the water is contaminated."
- Roy Crawford, Whitesburg, KY

"Southwest Virginia is increasingly and now very rapidly realizing that it cannot depend on coal for its economic future. We've got to find a diverse number of economic alternatives. One of those alternatives is recreation. In order for our waterways to be this economic resource, they must be protected against the irreversible impacts of mountaintop removal coal mining, valley fills and other associated impacts of the mining industry.
- David Rouse, Wise, VA

It is true that the coal industry in Central Appalachia is facing a particularly difficult time. Unlike previous boom and bust cycles, this downturn looks to be permanent. This is exactly why additional safeguards are necessary to protect public water. Companies desperate to turn a profit in a more competitive energy market may be more inclined to bend rules or ignore regulations all together. But as many local citizens who testified in support of the SPR have said, protecting the communities and the natural assets of the region is an integral part of making a successful economic transition.

Protecting those natural assets begins with reining in (and ideally eliminating altogether) mountaintop removal coal mining, which is associated just as strongly with poor socioeconomic conditions in communities near where mines operate as it is with reduced life expectancy and poor health. Not only do the Central Appalachian counties where mountaintop removal occurs have among the highest poverty rates in the country, but a study of "persistent economic distress" published by the Appalachian Regional Commission in 2005 showed that those counties are far more likely to remain economically distressed compared to nearby counties where mining is less prevalent. According to the ARC study:

> "Of all the regions in this analysis, Central Appalachia has been one of the poorest performers in relation to the ARC's economic distress measure over time. Furthermore, and unlike all other regions in the U.S., current and persistent economic distress within the Central Appalachian Region has been associated with employment in the mining industry, particularly coal mining."[23]

Ironically, the high poverty rates in Appalachian counties are frequently cited by mining interests as reasons for streamlining the permitting of mountaintop removal mines, despite the fact that more than 50 years of poorly regulated strip mining has failed to improve the economic situation. A study published in 2011 in the Annals of the Association of American Geographers took on the question of the relationship between mountaintop removal (MTR) and unemployment rates directly. Based on their analysis, the authors of the study concluded:

> "Although policymakers are aware of the negative environmental effects of MTR, its continued use is primarily rationalized using the argument that it contributes to local economies, especially job retention and development... Contrary to pro-MTR arguments, we found no supporting evidence suggesting MTR contributed positively to nearby communities' employment."[24]

To make matters worse, a series of new studies that quantify coal-related revenues and expenditures to state treasuries have shown that the coal industries in West Virginia, Kentucky, Tennessee and Virginia operate at a net loss to taxpayers, even accounting for the indirect impacts of coal mine employment while ignoring the "externalized costs" of the industry on the health and environment of communities where coal is mined[25-27]. According to the West Virginia study:

> "While every job and every dollar of revenue generated by the coal industry provides an economic benefit for the state of West Virginia and the counties where the coal is produced, the net impact of the West Virginia coal industry, when taking all revenues and expenditures into account, amounted to a net cost to the state of $97.5 million in Fiscal Year 2009."[26]

Of course, the studies that demonstrate steep economic costs of coal in Appalachia are not what have been grabbing headlines and been distilled down into soundbites and talking points for coal industry supporters. Rather, it's a study that purports to be an economic impact analysis of the Stream Protection Rule, commissioned by the National Mining Association and written by Ramboll Environ (which is itself a member of the NMA) that has been grabbing the headlines. Unsurprisingly, that analysis predicts that the Stream Protection Rule will all but deal a lethal blow to the American coal industry, destroying between 50 and 95 percent of the nation's current coal jobs. Its predictions for Appalachia are even grimmer, predicting that 30,000 to 52,000 workers (representing between 60 to 105 percent of the current Appalachian coal workforce) will be cut.

To bring a sense of proportion back into the debate, Appalachian Voices asked Jonathan Halpern, a former economist at the World Bank Group and a current professor of energy and infrastructure economics at Georgetown University, to investigate the NMA study and draft a memo with his findings. Unsurprisingly, he found the study's methodology and assumptions to be both bizarre and indefensible, revealing NMA's job loss projections to be as unfounded as they are misleading.

A complete copy of Halpern's memo has been added to these comments as an appendix, so I will just briefly summarize how NMA was able to come up with such far-fetched results..

First, Ramboll Environ chose a curious methodology for estimating the Stream Protection Rule's impact on future coal production. They sat down with 18 unnamed mining companies and asked them how they thought the Stream Protection Rule would impact their bottom lines. It probably doesn't have to be pointed out that there is nothing scientific or objective about this approach, particularly as most of those companies, like Ramboll Environ, are likely members of the NMA.

Second, the study relied on unrealistically high projections for future coal production as a baseline. The projections NMA used do not take into account how factors such as natural gas production, coal seam access and availability, and national policies such as the Clean Power Plan will impact future production. More credible analyses assume that the production will fall between 2020 and 2040 by as much as 50%, even in the absence of a Stream Protection Rule.

A third flaw of the report is that it rejects any cost-benefit framework and simply provides a cost analysis. According to Halpern, we would likely see billions of dollars in benefits in the form of safety and health improvements for communities as a result of the Stream Protection Rule.

But perhaps the most perplexing flaw in this report is its claim that the Stream Protection Rule will replace the industry-friendly 2008 Stream Buffer Zone Rule, rather than the 1983 rule which is what is actually in effect. The 1983 rule is considerably more restrictive than the 2008 rule and, in some ways, the proposed SPR as well.

Theme 5: Need to update rules on bonding

> *"For decades, I have seen coal companies avoid responsibility. They don't pay benefits they owe miners. They don't pay fines. They change names and go into bankruptcy to avoid taking responsibility."*
>
> - Norman Sloan, Foster, WV (former coal miner).

Self-bonding has long been an allowable practice within the coal industry, as well as a looming problem. Through self-bonding, large companies have been able to avoid costs, but claiming the strength of their own business as assurance that mines would not be abandoned without money available for reclamation. As many of even the largest coal companies slide into bankruptcy, there is little security in self-bonding. States have not adjusted bond amounts adequately to account for effective reclamation, including the cost of long-term treatment for long-term water pollution issues such as selenium discharge, acid mine drainage and elevated conductivity. The state of Virginia is currently taking steps to eliminate self-bonding in the face of economic uncertainty, but more must be done on a federal level.

OSM proposes many important improvements to bonding provisions that we support. Among the most important of these are provisions to:

- Require financial assurances for treatment of long-term pollution discharges consisting of trust funds or annuities held by the regulator or accessible to the regulator;
- Prohibit the use of alternative bonding schemes for long-term treatment or for restoration of the ecological function of a stream;
- Ensure that regulators consider the biological conditions of perennial and intermittent streams when setting bond amounts;
- Require regulators to consider monitoring of groundwater and surface water, including biological parameters, when deciding whether to release any part of a reclamation bond;
- Specify criteria for bond release that would prohibit a regulator from releasing a bond if, among other things, monitoring reveals "adverse trends" that may result in material damage or if long-term treatment of pollution is not demonstrably financed.

There are several steps OSMRE should still pursue to strengthen the section of the SPR regarding self-bonding and reduce the ability of coal companies to outmaneuver regulators by using subsidiaries and shell companies to avoid their environmental commitments and liabilities. In particular, the SPR should provide that if any part of a corporation, including a single subsidiary, does not meet the self-bonding requirements, no part of that corporation may qualify for a self-bond.

Conclusion:

The current draft of the Stream Protection Rule is far from perfect. However, the draft does represent an honest effort to improve upon three decades of poor regulation that has allowed mountaintop removal coal mining to endanger Appalachian communities and devastate wildlife and aquatic ecosystems.

For too long, people have suffered the consequences of poor enforcement and regulations that allow for state regulators in states like Kentucky to continue to fail. OSMRE has provided an opportunity to tackle some of those problems, and further delay will only lead to further damage.

Congress and state agencies should disregard bogus job reports and focus on strengthening the Stream Protection Rule so that it will better protect people, streams, and wildlife in Appalachia and across the country.

Coal's decline is a reality, especially in large parts of Central Appalachia where mining has been a major employer for generations. In order for local economies to transition away from coal, we must prevent companies from continuing to destroy the natural resources essential to a healthy and brighter future.

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APPENDIX I: REVIEW OF ECONOMIC ANALYSIS OF PROPOSED STREAM PROTECTION RULE COMISSIONED BY THE NATIONAL MINING ASSOCIATION

OBJECTIVE AND BACKGROUND:

This note provides a critique of the National Mining Association's assessment of the economic impact of the proposed Stream Protection Rule (SPR). Such a review is warranted at this time as the findings of the NMA'S assessment indicate large scale mine closures, layoffs and economic dislocation, particularly in Appalachia. This dire scenario has been widely publicized by mining interests as part of efforts to garner public support for voiding implementation of the SPR.

Pursuant to issuance of the draft SPR, the Bureau of Land Management (BLM), the agency responsible for drafting and the consultation process, commissioned the consulting firm, IEC to undertake a regulatory impact study of the SPR[1]. Concurrently, the National Mining Association (NMA) contracted Ramboll Environ to undertaken a similar, but not identical exercise in 2014-2015[2]. Both studies took a long term view, using the same forecasting horizon of 2020-2040. However, the two studies came to starkly different conclusions regarding the economic impact of the SPR, with the NMA study positing much larger negative impacts than the BLM study. This reflects differing approaches, methods, models, definitions and assumptions utilized by each.

This note reviews methods and assumptions NMA/Ramboll utilized in reaching its conclusions and identifies shortcomings which bring into question the likelihood of such a scenario materializing. This finding is based solely on review of the Ramboll report and the IEC report. Those documents do not provide comprehensive background documentation on important assumptions, model structures and information used as inputs in the models. The lack of complete documentation leaves a high degree of opacity for both NMA's and BLM's economic impact analysis. A hallmark of sound impact assessment is the ability of objective third parties to reproduce the results obtained and that is not the case here.

Before turning to the NMA's study's findings, a word about the basic approach: estimating economic impacts of the SPR involves the following major steps:

- *Defining the "base case":* (ie without the SPR): This involves forecasting what would transpire in the coal industry over the next 25 years (ie during the 2020-2040 forecast period) in the absence of the SPR in terms of relevant economic indicators such as coal production, employment, economic activity etc.
- *Projecting coal production under the SPR:* This requires defining operational parameters of the SPR with sufficient precision to make credible judgments as to their impact on the behavior of mining companies. in terms of future coal production. That in turn requires forecasting important contextual factors, including future behavior of broader energy markets of which coal is a part, and future economic conditions more generally. There is a high degree of uncertainty in predicting developments in each of these areas under both the base case and with the SPR

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[1] *Regulatory Impact Analysis of the Stream Protection Rule*, Industrial Economics Inc., July 2015

[2] *Economic Analysis of Proposed Stream Protection Rule, Final Report*, Ramboll Environ, October 2015

- *Estimating direct economic impacts:* These concern changes in employment and investment in the coal industry over the next 25 years that are *directly attributable* to the SPR. It keys off of forecast changes in coal production and this is why coal production forecasts are crucial to this impact analysis. Note: These impacts represent *costs* of implementing the SPR. They should not only be compared against the base case, but also to the *benefits* accruing from enactment of the SPR. It is often difficult to assign monetary values to improved hydrological, biological and ecological conditions.
- *Estimating indirect economic impacts*: Direct impacts give rise to 2nd and 3rd round effects. For example, reductions in labor, in purchases from enterprises which supply coal mining companies, and in payment of taxes to various levels of government may reduce earnings and spending by these actors until they are able to sell their services to others

PRINCIPAL FINDINGS

The principal results and drivers of those results of the NMA study are presented below

COAL PRODUCTION IMPACTS

As mentioned above, the 25 year forecast of coal production, under the SPR and without it, drives the economic impact assessment. To estimate changes in future coal production, NMA and its consultants queried 18 mining companies on how the provisions of the SPR (as interpreted by them), would affect access to their coal reserves and to the reserves they do not currently control (eg. federal, state and Indian lands). Inclusion of the latter exaggerates the size of the economic resource base and the consequent 'loss' which the study posits. Not surprisingly, the mining companies opined that many mines would either shut down or curtail future expansions and would not seek permits for new areas on private or public lands. They also indicated the expected impact of their curtailing production on their suppliers and freight services (mainly rail). Those responses were scaled up to 'approximate' the entire coal mining sector, weighting (scaling) by current production levels of each state/type of mine. This procedure may exaggerate the overall reduction in future coal production as current production shares are not reflective of future conditions, even under the baseline scenario (ie without the SPR).

Estimates of Cumulative Production Forgone 2020-2040 due to SPR

million tons

	NMA-Ramboll		**BLM-IEC**
	low case	**high case**	
Appalachia	125.8	219.7	17.8
Interior	41.6	125.2	7.5
Western	95.8	284.8	15.7
TOTAL	**263.1**	**629.7**	**41.1**

To estimate production forgone, projections of future coal production under the SPR are compared to baseline production forecasts. If the base case is 'optimistic", the magnitude of the difference between the 'with' and 'without SPR' is much larger. The base case is therefore key. As shown in the table below, the NMA's base case assumes that the decade long decline in coal production will essentially reverse itself and return to 1100 million tons by 2025 where it will remain until 2040. In contrast, the BLM/IEC study forecast a base case characterized by a gradual decline in coal production. Why the large difference in base cases? The NMA study's baseline

forecast 2020-2040 does not incorporate interactions among energy markets (eg substitution of coal for gas), power demand and the general economy, nor effects of recently issued regulations which indirectly affect future demand for coal (eg, MATR, Clean Power, current SPR). Failure to account for those leads to overly optimistic base case coal production forecasts. In contrast, the BLM/IEC study forecasts a 15% decline in coal production even in the absence of the SPR, equivalent to 162 million tons. With enactment of the new SPR, production is forecast to decline by an additional 1.9MT/year on average, 4.5M / in 2022, narrowing to .2 million tons in 2040. That represents just 0.4% of forecast production in 2022 and 0.02% in 2040.

Comparison of production forecasts' base cases

total production (million tons)

	2020	2025	2030	2035	2040
NMA-Ramboll	1070	1120	1120	1130	1130
BLM-IEC	1079	1098	1084	1022	917
EIA ref case	1076	1114	1126	1126	1120
EIA Clean Power case	761	737	665	600	494

Impact on Appalachia: Under all forecasts (including baselines, w/o SPR), coal production in Appalachia is forecast to continue declining. This is due to several factors: Given Appalachia's large share of national coal production, secular declines in national production disproportionately effects Appalachia's output (mathematically speaking). Higher cost of coal mining relative to other regions (and to other countries vis a vis exports) reduces its competitiveness and the continuing shift from coal to gas fired electricity generation reduces demand for coal. Within the coal market, the shift by coal fired electricity generators to lower cost, less clean (higher SOX), lower quality (lower BTU) coal from other regions has and will continue to accompany retrofitting existing power plants with scrubbers and other pollution control equipment to meet emission requirements, a development which disfavors Appalachia's high quality, low sulfur sub-bituminous coal. Geography is also a factor: Coal power stations in the Midwest and South Central US will increasingly draw coal from the Illinois and Power River basins to reduce transportation costs, now that they have the means to utilize nearby lower quality coal. NMA predicts large scale reductions in Appalachian coal production (12-25%), with more than 60% of the reductions from underground mines. No clear rationale is given for such large scale reductions in future production which enactment of the SPR is supposed to occasion. Which costs will balloon to such an extent as to warrant large scale shutdowns and a virtual halt to new starts? Haulage, stream restoration, topographical recontouring, reforestation, or merely administrative/reporting requirements? [3] The NMA report does not elucidate how those costs add up.

DIRECT EMPLOYMENT IMPACTS

An overriding concern of local communities is potential job losses stemming from the SPR. The NMA study devotes considerable attention to this matter as does the BLM study. For both studies, the primary factor driving estimation of job loss are projections of coal production foregone under the SPR. As discussed above, the NMA study posits large scale curtailment of production in the coal industry as a direct consequence of enactment of

[3] In contrast, the BLM/IEC study forecasts a reduction of 18 million tons over the 2020-40 forecast period. This represents 4% of the baseline which, while much smaller than that claimed by the NMA, is the largest % decline among coal producing regions.

the SPR. Moreover, the NMA study posits a base case i.e., (without SPR) of resumed growth in coal production. Thus, the combination of a rosy baseline production scenario and a dire SPR scenario gives rise to projections of massive quantities of coal not produced. This in turn leads to estimates of many fewer workers in the industry over the forecast period. Below are the studies' estimates of employment loss stemming from the SPR:

Estimated reduction in direct coal industry employment attributed to SPR

	Total for 2020-2040 low scenario	high scenario	ref Current Direct Employment	as % of current emplyment	
NMA-Ramboll					
Appalachia	30115	52566	49855	60%	**105%**
Interior	4931	14638	15764	31%	**93%**
West	4993	10317	14590	34%	**71%**
TOTAL	40039	77521	80209	50%	**97%**

BLM-IEC based on ROI calc of average annual reductions 1/

	ave	low	high	ref Current Employment 3/	as % of current emplyment	
Appalachia	4410	861	9350	49855	2%	19%
Interior	693	-42	1974	15764	0%	13%
West	462	0	1386	14590	0%	9%
TOTAL 2/	5460	861	12490	80209	1%	16%

1/ low-high = range in possible effects in any given year
2/ regions do not sum to totals due to rounding
3/ using NMA estimate at right for comparability

To put the NMA study's estimates of job loss into perspective, the above table compares those to current levels of employment in the industry, as compiled by DOE/EIA. The NMA posits that the equivalent of 50%-95% of today's coal workers may lose their jobs as a direct result of the SPR. Why such extraordinarily large job losses? For the NMA study, beyond the sharp reduction in future coal production forecast, two other factors drive these questionable estimates of employment loss: (1) the gratuitous inclusion of 20,000 workers not employed by the coal industry in the base case[4] and (2) the assumption from the production forecast (section above) that all cuts are implemented immediately after the SPR goes into effect rather than being phased in gradually, thus leading to massive economic dislocation

[44] These include the freight rail workforce, contractors to the mining companies, and service providers all as 'sector workers" who were included in 'direct effects' to which the employment multiplier was applied, magnifying the resulting estimates of jobs at risk.

Impact on Appalachia: As with estimates of production foregone under the SPR, the NMA study posits that the largest share of reduction in the mining workforce will occur in Appalachia. It estimates that 30,000 to 52,000 coal workers will be forced out of work who would otherwise be employed in coal mining absent the SPR. Even on its surface, such figures defy credibility as they represent 60% to 105% of the current workforce (as calculated by DOE/EIA).

Second, these percentages are double those for reductions in coal production in Appalachia during the forecast period, implying massive increases in future worker productivity which are not substantiated.

Third, the majority of workers at risk, according to the NMA study, are those engaged in underground mining. While underground mining is indeed more labor intensive than surface mining, and while Appalachia the largest number of small underground mines of all coal producing regions, the estimated reductions in employment for both longwall and room & pillar mining operations in Appalachia do not appear to reflect the requirements of the SPR (which more profoundly impact costs of surface mining relative to underground mining).

Notwithstanding, even if the likely employment impacts are considerably less than NMA estimates, 1000s of workers, their families and communities are likely to be affected and credible programs for retraining, placement and continuing support should be put in place, on several orders of magnitude greater than those currently available.

INDIRECT/REGIONAL ECONOMIC IMPACTS

As noted reductions in coal production and employment will affect industries that service coal mining and those that service the coal mining workforce. The NMA sought to estimate such indirect effects using an Input-Output (I/O) model which essentially derives multipliers from inter-industry accounts and applies those multipliers to forecasts of direct changes in output and employment in an effort to quantify indirect effects. The multipliers are supposed to reflect the cumulative linkages between coal mining, other industries, households, and government. Use of static I/O models for this purpose have been sharply criticized in the professional/academic literature for overstating actual indirect and induced effects. [56]

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[5] For example, see Bess, R, et al, Input Output models for impact analysis, 2011; Policies for economic multiplier and impact analysis, Hughes 2003; On the use and misuse of input output based impact analysis, Grady B et al 1986

[6] Inter-industry accounts are used to measure how changes in an industry (eg. coal) ripple through the economy by virtue of its linkages with other industries and through changes in wages paid to its workforce. Key shortcomings of relying on I/O matrices to estimate realistic multipliers include the following: (1) reliance on static (fixed) inter industry coefficients throughout the projection period ignores current industry best practice and technological innovation, (2)imposes linearity among all variables which mis-specifies key economic relationships, ie - non linearity, (3) ignores actual macroeconomic feedback loops which dampen economic effects of a change in a given sector (eg price elasticities, demand changes, price formation), (4) ignores productive use of resources idled by a decline in economic activity in the target sector (eg coal), (5) ignores the time dimension, implicitly assuming a single period of adjustment to new economic equilibria). All of these highly restrictive assumptions underscore the need for extreme caution in interpreting the results of I/O modeling .

The results of the I/O analysis are summarized in the table below: the NMA study estimates reductions in GDP over a 21 year period of $28 to almost $60 billion (that's a 'b'). There are several factors which underlie these astoundingly large figures of foregone economic activity:

1. The average multiplier (2.10) is large relative to those generated by robust economy-wide general equilibrium models which estimate such multipliers at half of that;1.25-1.50 (but in line with other I/O models which points to shortcomings of I/O models)
2. The model was run assuming that the full 27% (low case) and 64% (high case) reduction in forecast coal production would occur immediately and in full. This means the multiplier would be applied to unrealistically early and large direct impacts and would persist at the same magnitude over the 21 year forecast period
3. The direct impacts, to which the multiplier is applied, was inexplicably expanded to include indirect services (eg. freight rail, contractors, and industries serving coal mining).
4. The economic model provides no analysis nor estimation of *benefits* accruing from the SPR against which to compare its costs.

These concerns lead to the conclusion that the magnitude of the NMA study's estimate of impact of the SPR on GDP is exaggerated.

NMA-Ramboll Direct & Indirect Impact on GDP 1/ 2/
constant 2014 dollars ($ million)

	direct	indirect	total
Total Low Case	13870	13830	27700
Total High Case	28720	30000	58710

1/ effective multiplier low=2.0, high=2.04
2/ measured by acounting costs in static, closed I/O model

	total-low	total-high
Appalachia	17000	31000
Interior	6000	16000
Western	4700	11500
TOTAL	27700	58500

BLM-IEC Welfare Losses 2020-2040 /1
constant 2013 dollars ($ million)

total	720.3

1/ direct impacts only, measured by changes in consumer & producer surplus in interlinked energy markets

The BLM/IEC study approached estimating economy-wide impacts using different method and models than NMA, cognizant of the tendency of I/O-based multiplier models to overestimate impacts. Interlinked models of the energy markets and the economy at large were used to assess changes (reductions) in consumer and producer surplus resulting from costs mining companies and govt. would incur in complying with the SPR. What distinguishes this approach is that it incorporates energy market dynamics over the forecast period (2020-2040) and dynamics among different coal producing regions. These models are used to estimate direct effects, not indirect or induced effects. Like the NMA study, the BLM/IEC models do not capture 'benefits' accruing from the SPR , only costs and this is a major shortcoming of both.

Senator INHOFE. Thank you, Mr. Wasson.

In order to accommodate Senator Capito's schedule, I will exchange order with Senator Capito.

Senator Capito.

Senator CAPITO. Thank you, Mr. Chairman.

Thank all of you for your presentations today.

I would like to ask you, Mr. Erdos, you heavily emphasize in your statement the lack of cooperation and cooperative attitude that you felt OSM is moving forward with the rule. One of the things really got my attention when you said that there was no conditional approval, no timelines. To me, that just sounded like a major stall tactic. You can just keep moving on and on and never get a resolution. What are investors going to do? How many jobs are going to be lost in the process?

Could you comment on that a little more fully? Would you think that would be an improvement to the rule? Was that a suggestion that Ohio made, in your opinion?

Mr. ERDOS. Thank you, Senator. I say that in the context relative to the Endangered Species Act and the way that we currently do business in the State of Ohio relative to Protection Enhancement Plans. The way the rule is written, the proposed rule, the interpretation could be that the U.S. Fish and Wildlife Service would essentially have to approve that PEP plan prior to the State issuing a permit. What we have done in Ohio is, if we have a 1,000-acre permit and the PEP may only be a half an acre, in many cases we issue those permits conditionally. That requires the operator not to affect those areas that are currently being reviewed by the U.S. Fish and Wildlife Service.

The way the rule is written today, the interpretation could be that we would no longer be able to do that, so we would have to hold a permit up relative to issuance for that half-acre for this 1,000-acre area. That was my reference.

Senator CAPITO. Right. So no flexibility there at all.

Mr. Larkin, you mentioned in your testimony just briefly underground. I asked a question earlier—you might have been here in the earlier segment—about there is great concern about what impacts this could have on your ability to mine underground. What is your interpretation of this rule in terms of underground mining?

Mr. LARKIN. Thank you, Senator. The rule absolutely applies to both surface and underground mining.

Senator CAPITO. Right.

Mr. LARKIN. There seems to be a bit of a misperception here today that this is all about mountaintop removal mining. If it had been that simple, there were things that OSM could have done much differently in this context; they could have simply gone forward with the 2008 rule if that was the intent. As I think the director candidly mentioned, long wall mining, I think he said you could continue to long wall mine as long as that wouldn't cause any substantive impacts to streams. I am not sure exactly, but there is grave concern that this would, as a practical matter, make it impossible to permit a long wall mine, which of course in your State is important and is important to the Nation's energy needs. Those are some of the most efficient mines, and there are some that are still running now.

So as I read this proposed rule, it will have an impact on both surface and underground mining.

Senator CAPITO. Thank you.

Mr. Erdos, one thing I have been thinking about as I have been listening to the testimony, because we have had testimony in this Committee on waters of the U.S. under the Clean Water Act, and then we had the stream buffer.

How do you keep track of all this as a regulator in your State? What kind of conflicts are going to exist? To me, I think that would create huge burdens on your State regulatory agencies. You have talked about Ohio being under budgetary constraint. Certainly the State of West Virginia, I mentioned, is over $300 million under our tax estimates for this year. What would your response to that be?

Mr. ERDOS. I believe there are significant challenges, and it will be very confusing. As of today, I have had my staff looking into that in regard to the Clean Water Act and who enforces what, and I think that is going to be a real challenge. In Ohio, the Ohio EPA enforces the Clean Water Act under their 402 national discharge pollution elimination system permits. Those are also part of our SMCRA permits. So it is a little more complicated in Ohio, but it a system that works for us.

Under the proposed rule, it is not clear who has the authority. If SMCRA truly has the authority today, how do they interact with Ohio EPA, the current authority in regard to the Clean Water Act in Ohio? So I think there is much, much to discuss moving forward in regard to the Clean Water Act and how it is going to be enforced in Ohio, and what I have said and what we have said at Ohio DNR, we would like to be reengaged by OSM. Let's sit down and have a conversation relative to these very important issues.

Senator CAPITO. And that is going to be my final comment. I think one of the bottom lines here with a lot of frustrations from many State regulators and certainly the States most heavily impacted is the lack of State input on the front end. The States who actually were cooperating removing themselves—Kentucky being one and West Virginia being one, and now what kind of confidence would you have that OSM is going to come in and say, well, here is the delineation of this, and this is where we take care of this? And before you know it you are either under heavy fines or the balance of the economy, if there is one in this case, is simply non-existent.

Thank you.

Senator INHOFE. Thank you, Senator Capito.

Senator Boxer.

Senator BOXER. I always find it amazing the criticism that comes from that side. How do you know what to do? We have the Clean Water Act, we have the Safe Drinking Water Act, we have the Surface Mining Act. Oh, you know why we have those? Because the people that Mr. Wasson talks about are real, and the public support these acts by 90 percent.

So why don't you who complain about this repeal these? You know why? They would love to. They can't because they would be thrown out of office, and the people would rise up, and there would be marches all the way to the Capitol from California. That is the reason.

Now, let's get real here. We have an attorney here who represents coal companies, is that correct?

Mr. LARKIN. Yes.

Senator BOXER. And one of your affiliations and memberships—you belong to the Kentucky Coal Association, sir? Are you affiliated with them?

Mr. LARKIN. As I said in my testimony, yes.

Senator BOXER. So you are affiliated with them. How about the Lexington Coal Exchange, are you affiliated with them?

Mr. LARKIN. Sure. Yes.

Senator BOXER. And how about the Energy and Mineral Law Foundation, are you affiliated with them?

Mr. LARKIN. Yes. That is a non-partisan——

Senator BOXER. Well, whether they are not, I am just asking yes or no. OK.

Mr. LARKIN. Oh, yes. Yes.

Senator BOXER. So my point is here we have an attorney paid big bucks to represent the polluting industries. We don't have an attorney here who represents the people, who represents the environment, and that is sort of a sad situation.

Now, you have one witness who says this is a rule in search of a problem. Really? So do you discount, Mr. Larkin, the quote that Mr. Wasson made by just an ordinary human being who can no longer go to a mountain stream? Do you think that that individual has a right to say that? And do you agree or disagree with his comments, that he used to go over and fill a bottle with water, and now that is gone, no longer possible? Do you think that is a problem?

Mr. LARKIN. Senator, of course I have no basis to disagree with that comment; I don't know the gentleman who made it. I don't know any of the facts of that situation.

Senator BOXER. Well, I understand you are an attorney. My point is you are saying that this is a rule in search of a problem, and yet there is a huge problem, and real people say it who don't get paid by industry. That is my point.

Now, Mr. Erdos, you point out with great upset that you don't feel the States were respected. However, it is my understanding that the role that you did have, you were invited to advance notice of proposed rulemaking in 2009, was far in excess of what the Bush administration did in 2008. It is my understanding the States did not have a similar role, any comments when the Bush administration developed their 2008 stream buffer rule. And this Administration has had a far more open process.

Did you complain, or your predecessors complain, when Bush administration issued the rule, that you weren't consulted?

Mr. ERDOS. Thank you, Senator. It would be difficult for me to answer that question relative prior to 2008; I wasn't in my current position.

Senator BOXER. Fair enough. Well, we will look it up, because the record does not show it. This was an unprecedented reach out, and all we hear are complaints about it. But the law is not going away.

Now, Mr. Larkin, you say there are no gaps in existing law that need to be filled. If this is the case, why are there numerous peer

reviewed studies documenting the significant water quality and public health impacts near coal mines?

Mr. LARKIN. Thank you for your question, Senator. First of all, those studies that were referenced are subject to significant dispute. The vast majority of them are authored by a single, I believe he is a psychologist at Indiana University, Michael——

Senator BOXER. Well, let me cut you off. Let me cut you off for this reason.

Mr. LARKIN. Go ahead.

Senator BOXER. We are running out of time, and you are wrong. How about there are 21 peer reviewed studies by different people? How about that I am going to put them in the record and these are the facts that were found out. I know you are paid by the coal companies, but don't tell me they are one person only, when there are 21 separate peer reviewed studies. And we will send this to you for your information so at least you can look them all over before you criticize them.

Here's what they found out. People living near mountaintop mining have cancer rates of 14.4 percent, compared to 9.4 percent for people elsewhere in Appalachia. Two, the rate of children born with birth defects is 42 percent higher in mountaintop removal mining areas. Fact. The public health costs of pollution from coal operations in Appalachia amounts to a staggering $75 billion a year.

Twenty-one separate peer-reviewed studies.

I ask unanimous consent to place this in the record.

Senator INHOFE. Without objection.

[The referenced information was not received at time of print.]

Senator BOXER. My time is over, but I have to say bless your heart, you do a good job for the companies you represent. But that is not my job and is not the job of this U.S. Senate. It is to protect the health and safety of the people, while of course looking at the economics. And I have to say that the witness we had before who talked about this rule seems to understand that balance. Sir, you do not. You are not paid to, I get it.

And I really do want to say, Mr. Wasson, thank you for your testimony.

Senator INHOFE. Well, Mr. Larkin, I guess industry is bad, right? Who employs people out there?

Mr. LARKIN. Coal companies do, Senator.

Senator INHOFE. Did you know I was down north of Poteau, Oklahoma, last Friday? There are one-half the number of employees there today than there were less than a year ago when I was down there. I think I said that in my opening statement.

Do you care about that?

Mr. LARKIN. Absolutely, I do care about that, Senator, and that is why I am here. I am not being paid to be here today.

Senator INHOFE. I understand.

Mr. LARKIN. I am here because I care about my State and what is going to happen to it and the economic devastation that rules like this can cause.

Senator INHOFE. Yes. You know, there is one good thing that I have always supported as we have had our meetings in this Committee, and that is the Regulatory Impact Analysis that is required to be made. I think that is very reasonable, and yet a lot of liberals

really object to the fact, well, why should we be concerned about jobs? Why should we be concerned about the cost to the American people for these various regulations? They even get offended.

It is my understanding, and I want to ask you about this, that in this rule the OSM fired its initial contractors when their estimate—estimate, now we are talking about—under the Regulatory Impact Analysis, showed a substantial number of job losses. Do you believe that?

Mr. LARKIN. Yes, I am familiar with that, and I believe there has been testimony here in the Congress about how that operated, that basically OSM got numbers that they didn't like and that didn't support the rule, so they fired the contractor.

Senator INHOFE. So they hired contractors. But they somehow perhaps have a little wink and nod understanding before they come on. That is what I think. And you see that they come out and talk about these people are going to lose their jobs. How dare you do that? Let's find somebody who maybe doesn't believe that. Do you think that happened?

Mr. LARKIN. Yes, I do. They had very knowledgeable mining consultants working on the project and came back with answers that OSM didn't want to hear, and they were fired.

Senator INHOFE. Mr. Larkin, sometimes serving in the Senate, I have thought of it as being an advantage not to be a lawyer, because when I read the law I know what it says. Now, you heard me in my opening statement, maybe it wasn't in opening statement, it may have been initially in this meeting, read section 702. When you read that, which I won't read again because it takes too long, but that is so specific. Do you see there is any room for ambiguities in that law?

Mr. LARKIN. No, Senator, I don't. I think we all agree that it is pretty clear.

Senator INHOFE. Mr. Erdos, if a State, like your State of Ohio, is authorized to issue permits for coal mining operations—now, I am talking about today, not with this rule, but the way it is today—who is in charge of making those decisions today?

Mr. ERDOS. Ultimately, I am, the chief.

Senator INHOFE. And how would this change if this proposed rule would go into effect?

Mr. ERDOS. I would still have the authority to issue the permits, But with that being said, the way the rule is proposed in regard to the Endangered Species Act, it would make it challenging to issue a permit without the approval of the U.S. Fish and Wildlife Service.

Senator INHOFE. So they would have veto?

Mr. ERDOS. Ultimately, U.S. Fish and Wildlife Service could have veto power, yes, over the permit.

Senator INHOFE. That is not the way it operates today. So in my opening statement I made four different references as to what was going to be changed in terms of the Federal takeover, what I consider to be illegal Federal takeover. So as we look at the rule that is coming up, yes, we do make considerations, at least I do, in seeing what has happened actually in my State.

When we have talked and we have heard the witnesses today, and we know that there is another Federal takeover in the wings, I have really good friends who are liberals.

Senator BOXER. You are sitting next to one.

Senator INHOFE. Well, I am not going to make the direct reference, because then I know what is going to happen.

I have to say this, that my good friend here, we work together. It is Environment and Public Works. On the public works side we work together. We recognize that Government does have a role. In fact, there is an old, beat up document that nobody reads anymore, it is called the Constitution. Article 1, section 5, I think it is, says we are really supposed to be doing two things primarily around here: defending America, and then roads and bridges. We understand that.

But a true in his heart or in her heart liberal really believes that Government does things better than people do, so we do have basic differences and philosophies. And I am going to do what I can as Chairman of this Committee and as someone who is desperately concerned about what is happening economically with overregulation that we are facing to try to keep this rule from becoming a reality.

So thank you for being here. We will dismiss this panel and adjourn our meeting.

Senator BOXER. Mr. Chairman, may I please, since you went over a minute, have 1 minute to close with my comments, with, of course, your being able to retort?

Senator INHOFE. Of course.

Senator BOXER. First, I want to thank the panel. This was important, and we see the conflict. And my colleague, who is a dear friend of mine, summed up my remarks in his way: industry is bad. That was his word, industry is bad, as if that is what I was saying.

And I resent it. I come from the largest State in the Union. We are the eighth largest country in the world, if we were to be a country, in terms of our gross domestic product. We have more industry than anybody, than him, than him, her, everybody. And I have great relationships.

Of course we want industry. Of course we want jobs. You have to have that. But industry, as individuals, must be responsible. And if they are causing problems, then we ought to work together, together.

And that is why, Mr. Erdos, I question you, because we did open up the door to hear from you, and yes, you will have to collaborate with Fish and Wildlife before you issue the permit. It is not like you are in some kind of vacuum. You are a nice man; you are going to meet with a nice person at Fish and Wildlife. You are going to find out the best way to go so we don't poison our fish and we don't poison our children. A very important point.

And Mr. Larkin, I would just like to finish. Mr. Larkin, you do your job well for the coal industry, and good for you. And I didn't mean to suggest that you are doing anything wrong. They deserve the best and the brightest. But so do we, and that is why we have Mr. Wasson here.

So I am going to conclude by saying this. I suggest you all read the Surface Mining Act, because section 102 says, "(a) establish a

nationwide program to protect society and the environment from the adverse effects of surface coal mining operations, and wherever necessary, exercise the full reach of the Federal constitutional powers." Constitutional powers that my friend talked about. By the way, this is a Government of by and for the people. I don't view the Government as an enemy. "Exercise the full reach of the Federal constitutional powers to ensure the protection of the public interest through effective control of surface coal mining operations." Here it is. We put it in the record before.

The point is, all right, what the Administration is doing is constitutional, is required under the law. It is to protect the very people that, sir, you spoke about. And again, this is a sharp division, and I guess the people will make their judgments every time they go to vote. You know, they vote for him in his State; they vote for me in my State.

Senator INHOFE. All right, Senator Boxer.

Senator BOXER. What a great country is all I can say.

Senator INHOFE. I am not adjourning the meeting yet, but I will in 3 minutes. And I understand that if you haven't been through the experience that a lot of people in this room have been through, and I suggest the two of you have, it is a tough world out there.

I had a career before this, and I was out doing things, I was building, developing. Some people think that is bad. I was expanding the tax base. I was doing what Americans are supposed to be doing. And the opposition that I had was always overregulation. Unless you have lived being overregulated, you don't understand how this can happen.

So, anyway, we are here now to try to let people have more freedom to do the things they want to do, to hire people, to expand the tax base, and to have a more prosperous America.

Now, a specific comment was made about you, Mr. Erdos, about they opened up everything to you. Would you like to respond to that? Was everything opened up to you?

Mr. ERDOS. I am sorry?

Senator INHOFE. The comment was made that all this was opened up to you at the State level.

Mr. ERDOS. Oh, yes. Yes, thank you. Yes, it was, and we certainly appreciated that. We have said from the very beginning that we want to be engaged with OSM. We want to be engaged in this process, and initially we were.

Our concern is over the 4-year period where that one-way communication developed. And again, we want to work with OSM, and we continue today to want to work with OSM. So it is not that we don't want to be part of the process. We want to be part of the process. We want to say to you, OSM, come back to the table. We want to sit down with you. We think we can help you. And that is essentially what we are saying at Ohio DNR, just talk to us.

Senator INHOFE. And Mr. Larkin, a job description was commented about you, what your job is. Do you want to characterize what your job is and what your personal feelings are, how that interacts with whose payroll you are on?

Mr. LARKIN. I do represent coal companies, Senator, and I am proud to do it because of how important they are to the State where I live. But I am here today both in that role, as someone

who has gained knowledge about what it is like to be overregulated and because through representing coal companies I have met those people who live in the coalfields, and a significant number of them are coal miners.

And because coal miners live in the coalfields, they are not going to do anything that is going to put something that is toxic or dangerous into the water, and they are going to do everything they can to be as responsible to the areas where they live because they live there.

So I think it is a misperception that there is this vast majority of people out there that somehow oppose mining in the areas where mining occurs, because a tremendous number of those people are in fact coal miners themselves. So it is for them that I am here today as much as anything.

Senator INHOFE. We thank the panels, and we are adjourned.

[Whereupon, at 11:39 a.m., the Committee was adjourned.]

[Additional material submitted for the record follows:]

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

Todd Parfitt, Director

May 22, 2015

Mr. Joseph G. Pizarchik
Director, Office of Surface Mining Reclamation and Enforcement
U.S. Department of Interior
1951 Constitution Avenue, NW
South Interior Building
Washington, DC 20240

RE: Stream Protection Rule Cooperating Agency Status

Dear Director Pizarchik:

The Wyoming Department of Environmental Quality (DEQ) continues to be disappointed and concerned about the lack of engagement by the Office of Surface Mining (OSM) with cooperating agencies regarding the Stream Protection Rule EIS process. DEQ has joined with the other cooperating agency states on three letters to you expressing our concern and expressing our desire and willingness to engage and provide input on the Stream Protection Rule as cooperating agencies. Unfortunately, OSM has chosen to ignore the request's by states to participate as cooperating agencies.

As I noted at our April 27, 2015 meeting in Baltimore, DEQ has extensive experience partnering with federal agencies as a cooperating agency. DEQ is routinely engaged on the development of rules, EIS documents and BLM management plans for example. This experience reinforces my point that early engagement of states as well as engagement throughout the entire process results in a positive interagency relationship and a quality end product. OSM's approach was to only provide states a single review opportunity under unreasonably short deadlines in September 2010 for Chapter 2, October of 2010 for Chapter 3 and January 2011 for Chapter 4.

As stated by OSM on April 27, 2015, the early draft EIS chapters that were shared with the cooperating states in 2010 and 2011 were of poor quality and incomplete. As further explained by your staff on April 27, 2015, the most recent draft EIS (which OSM has refused to share with cooperating states) is a major change from the first draft with five (5) new alternatives in addition to the original four (4) alternatives and other significant changes.

Our experience with other federal agencies in drafting an EIS is that subsequent drafts are shared with states for additional review and input. OSM has not engaged the cooperating agencies in the EIS development since January 2011. Under no measure of "cooperation" does that lack of

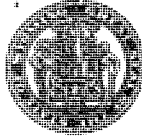
engagement honor the intent or terms of the Memorandum of Understanding (MOU) between DEQ and OSM dated August 25, 2010.

DEQ is disturbed by OSM's reluctance to allow cooperating states the opportunity to review the latest version of the Stream Protection Rule and the reluctance to honor the terms of the August 25, 2010 MOU. The state seals for cooperating agencies are normally affixed to documents when they are released for public comment. This is for the purpose of indicating that the cooperating agencies had meaningful participation in the process. Because OSM has elected not to allow meaningful participation by Wyoming on the Stream Protection Rule EIS Wyoming's state seal should not be used on or in the EIS document. Finally, I am requesting the final draft acknowledge the fact that Wyoming was not given an opportunity to review or provide comment on the Stream Protection Rule EIS since January 2011.

Sincerely,

Todd Parfitt, Director
Department of Environmental Quality

cc: Governor
Senator John Barrasso
Senator Mike Enzi
Representative Cynthia Lummis
Alan Edwards, DEQ
Greg Conrad, IMCC



Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor | Todd Parfitt, Director

October 23, 2015

Mr. Joseph G. Pizarchik
Director, Office of Surface Mining Reclamation and Enforcement
U.S. Department of Interior
1951 Constitution Avenue, NW
South Interior Building
Washington, DC 20240

Re: Wyoming Department of Environmental Quality Comments for Docket Nos. OSM-2010-0018, OSM-2010-0021 and OSM-2015-0002.

Dear Director Pizarchik:

The Wyoming Department of Environmental Quality (WDEQ) appreciates the opportunity to provide the following comments on the proposed Stream Protection Rule, 80 Fed. Reg. 44,436 (July 27, 2015) (Proposed Rule), the Draft Environmental Impact Statement (DEIS), and the Draft Regulatory Impact Analysis (DRIA). WDEQ recognizes the significant work that the Office of Surface Mining Reclamation and Enforcement (OSMRE) has invested in the Proposed Rule, but we ask OSMRE to withdraw the proposal immediately.

The Proposed Rule exceeds OSMRE's statutory authority, infringes on state sovereignty, fails to recognize existing best practices developed and implemented by states like Wyoming, lacks clarity, is scientifically unsound, and imposes significant economic and regulatory burdens without appreciable environmental benefit. WDEQ also objects to the process by which the Proposed Rule was developed. Members of the public, including WDEQ, were not given sufficient time and opportunity to review and comment on the massive rulemaking. Nor were the states appropriately consulted during the development of the Proposed Rule, including those states who signed agreements with OSMRE to serve as cooperating agencies for the development of the DEIS. We therefore ask OSMRE to withdraw the Proposed Rule and work with the states to develop a more appropriate regulatory proposal.

This letter summarizes WDEQ's core concerns with the Proposed Rule and the process by which it was developed. Detailed comments on the Proposed Rule, the DEIS, and the DRIA are provided in Attachment 1. Additional comments from the Air Quality Division of WDEQ are provided in Attachment 2. WDEQ also supports and endorses the technical, economic and legal comments submitted by the Interstate Mining Compact Commission (IMCC) on behalf of its members, which include the State of Wyoming.

Failure to Consult

The Land Quality Division (LQD) of WDEQ is the delegated regulatory authority for regulating coal mining in Wyoming and has received numerous awards from OSMRE for its regulatory program. Given its vast experience regulating coal mining in Wyoming, WDEQ/LQD accepted OSMRE's invitation in 2010 to become a cooperating agency in the development of the DEIS pursuant to the National Environmental Policy Act (NEPA). Wyoming

expected a meaningful role in the development of the DEIS and the Proposed Rule, and was willing to commit significant resources to the effort. But it immediately became clear that OSMRE was not interested in cooperative federalism and meaningful participation by the states. In fact, OSMRE provided little opportunity for WDEQ/LQD to participate and began to develop the Proposed Rule and supporting documentation in a vacuum.

WDEQ/LQD objected to OSMRE's closed-door approach numerous times. *See* Attachment 3 (providing a timeline of Wyoming's cooperating agency status and related correspondence). Despite letters from WDEQ/LQD, the Governor of Wyoming, and Wyoming's congressional delegation, OSMRE ignored its obligations under NEPA and shut Wyoming out of the process. In fact, WDEQ/LQD has not had any meaningful input since at least 2011, as acknowledged by OSMRE in the DEIS. The result of OSMRE's failure is a complete lack of understanding on its part – as evidenced throughout the proposal – of the regulatory program, environmental conditions, successes, and challenges in the country's most productive coal producing state. The failure also violates NEPA, the Council on Environmental Quality's NEPA regulations, and Executive Order 13,132 (Aug. 4, 1999).

Insufficient Opportunity to Comment

The federal Administrative Procedure Act requires the federal government to provide the public with ample time and opportunity to comment on proposed rules, and to consider and respond to those comments prior to finalizing any such rules. *See* 5 U.S.C. § 553. On July 27, 2015, OSMRE released more than 2,200 pages of highly technical and complex regulatory information in support of the Proposed Rule. The released documentation also contained citations to thousands of pages of additional scientific and technical information in support of the Proposed Rule and associated studies. Despite the sheer enormity of the proposal, OSMRE expects the public to review and meaningfully comment on that information within 91 days. The review period is wholly inadequate, and appears designed to purposefully evade meaningful public participation.

WDEQ has made its best efforts to review as much of the information as possible in the time allowed, but we have not had sufficient time to review the entire proposal and supporting documentation. WDEQ has reviewed enough of the Proposed Rule and associated documents, however, to know that the proposal is unsound and should be withdrawn.

Failure to Consider Wyoming's Regulatory Program

WDEQ's LQD has developed and implemented a strong and effective coal permitting and regulatory program in Wyoming. Our regulations require extensive baseline monitoring, detailed ground and surface water data collection for development of cumulative hydrologic impact assessments, and effective post-mining reclamation, among others factors. Wyoming mines have won numerous national awards for reclamation practices, including stream restoration. *See* Attachment 4 and Attachment 5. There are currently 82,000 acres in Wyoming in various bond-release phases of reclamation, and 50% (38,000) of those acres are now back in agricultural production. *See* Attachment 6. Productive post-mining land use is increasing annually under Wyoming's program.

Given the strength of Wyoming's program, it is no wonder that OSMRE has never questioned the efficacy of our regulatory efforts, much less issued any notice of program failure. And yet, despite this programmatic success, OSMRE now wants to impose a prescriptive national one-size-fits-all regulation, with nationwide standards, on coal mining operations in Wyoming. The Proposed Rule does not fit Wyoming's program or its landscape and ecology.

The Proposed Rule was clearly developed to target mountaintop mining in Appalachia. It does not account for regional or natural variability in stream types, water quality condition, natural vegetation types, climate, groundwater and surface water hydrology, or mining methods. It requires extensive monitoring before mining, during mining, and after mining until full bond release, regardless of whether such monitoring is scientifically

justified. The Proposed Rule also requires establishing 200-foot wide riparian zones on all streams, including ephemeral, regardless of whether a stream has the natural hydrology to support riparian vegetation or has a natural channel shape with a floodplain.

These and other regulatory elements in the Proposed Rule are not needed in Wyoming, particularly because Wyoming's existing regulatory program is robust and appropriately designed to address all environmental and reclamation concerns. The proposal may even undermine the success of our existing program. OSMRE has not articulated, nor can it demonstrate, the need for such a far-reaching rule. Wyoming has developed extensive best practices for surface coal mining and reclamation, none of which appear to have been considered in the development of the Proposed Rule. The proposal should therefore be withdrawn and reworked in consultation with the states to more appropriately tailor any new regulatory requirements to the actual facts and circumstances in each state.

Exceeds Statutory Authority and Infringes on State Sovereignty

The Proposed Rule exceeds OSMRE's statutory authority and infringes on state sovereignty. The Surface Mining Control and Reclamation Act (SMCRA) established "a program of cooperative federalism that allows the States, within limits established by federal minimum standards, to enact and administer their own regulatory programs, structured to meet their own particular needs." *Hodel v. Va. Surface Mining & Reclamation Ass'n*, 452 U.S. 264, 289 (1981). According to Congress, "because of the diversity in terrain, climate, biologic, chemical, and other physical conditions in areas subject to mining operations, the primary governmental responsibility for developing, authorizing, issuing, and enforcing regulations for surface mining and reclamation operations subject to this Act should rest with the States . . . ." 30 U.S.C. § 1201(f) (emphasis added). The Proposed Rule disrupts this directive from Congress.

Wyoming received SMCRA program authority in 1980. Since that time, Wyoming has implemented an effective surface coal mining control and reclamation program, tailored to meet the needs of Wyoming's arid landscape and our regulatory climate. Once states have gained program approval, exclusive jurisdiction over surface coal-mining operations transfers to the states. *See id.* § 1253(a). No state law or regulation of an approved program shall be superseded by any provision of SMCRA or any regulation issued thereunder unless the state law or regulation is found to be inconsistent with SMCRA. *Id.* § 1255(a). Wyoming's program is consistent with the statutory mandates in SMCRA, and OSMRE has never indicated a problem with WDEQ's program. Indeed, Wyoming's reclamation efforts have been award-winning. OSMRE has not demonstrated the need for a modification in the federal minimum standards, and to attempt to apply new minimum standards to Wyoming's program without that demonstration would undermine the statutory scheme crafted by Congress.

In addition, the Proposed Rule creates new standards for water quality that conflict with the federal Clean Water Act (CWA) and Wyoming's right to implement a delegated program under that Act. For example, OSMRE is attempting to make CWA permit requirements subject to enforcement under SMCRA permits. OSMRE is also proposing to take enforcement action if a mine operator fails to obtain all CWA authorizations prior to obtaining the necessary SMCRA permits. OSMRE lacks the authority to enforce the CWA, as it expressly recognized in 2008: "nothing in SMCRA provides the SMCRA regulatory authority with jurisdiction over the [CWA] or the authority to determine when a permit or authorization is required under the [CWA]. . . . In addition, nothing in the [CWA] vests SMCRA regulatory authorities with the authority to enforce compliance with the permitting and certification requirements of that law." 73 Fed. Reg. 75,814, 75,842 (Dec. 12, 2008). The Water Quality Division of WDEQ is the permitting and enforcement authority for the CWA in Wyoming, with oversight by the U.S. Environmental Protection Agency (EPA). The Proposed Rule should not conflate separate regulatory programs.

OSMRE should also drop any reference in the Proposed Rule and associated documentation to the recently promulgated definition of "waters of the United States" by EPA and the U.S. Army Corps of Engineers. *See* 80 Fed. Reg. 37,054 (June 29, 2015) (generally referred to as the "Clean Water Rule"). That definition is subject to legal challenge by 31 States, including Wyoming, and two courts have already held in response to preliminary injunction motions that the new definition likely violates the jurisdictional reach of the CWA. The Clean Water Rule is enjoined nationwide, and likely will not survive legal challenge. OSMRE should avoid future confusion by deleting any reference to the Clean Water Rule in the Proposed Rule and associated documents.

Grossly Understates Regulatory Impact

OSMRE has grossly understated the projected impacts of the Proposed Rule in the DEIS and the DRIA. The DRIA in particular indicates a complete lack of understanding and recognition by OSMRE of WDEQ's regulatory program and, by extension, the impacts that the Proposed Rule would have on Wyoming's economy.

The DRIA estimates that the total annual cost impact to regulatory programs in the Rocky Mountain Region would be $29,000. On its face, that figure is laughable. WDEQ has spent more than that simply reading and analyzing the Proposed Rule and associated documents, an effort that is not even remotely close to being finished. The DRIA attempts to explain how the $29,000 estimate – again, for the entire Rocky Mountain Region – was derived, but the explanation and approach indicates a clear failure to recognize how state programs are required to operate to meet our delegated responsibilities under SMCRA. WDEQ conservatively estimates that the Proposed Rule will impose up to $550,000 per year in additional costs on the LQD, through additional staffing and technical resources needed to implement and monitor the new regulatory program.

The additional cost to Wyoming will be accentuated by the reduction in state revenue as a result of the Proposed Rule. For example, the DRIA attempts to project lost tax revenues in Wyoming through implementation of the Proposed Rule. The estimate is grossly understated, and fails to recognize the relevant tax revenue streams tied to coal production in Wyoming. The DRIA only discusses coal severance tax revenue. The DRIA projects that the severance taxes lost in Wyoming would be $360,000 annually. As a threshold matter, that number is understated because it relies on 2012 coal production forecasts. The current conditions in the coal sector are far worse than what existed in 2012, the base year used in the DRIA. Coal companies are struggling to maintain market share in light of changing regulatory and market conditions. Economic and market forecasters are predicting that the coal industry will need to shed up to one-third of existing coal production capacity in order for the industry to begin to stabilize. Any market impacts, and by extension revenue impacts, based on 2012 data have no validity in the current market.

Setting aside the flaws in OSMRE's base year calculations, the annual $360,000 tax loss projection is grossly understated. The estimate fails to consider the additional loss of ad valorem taxes in Wyoming, which would be $350,200 per year based on the $360,000 coal severance tax estimate. In addition, the DRIA assessment does not acknowledge federal mineral royalty taxes. Based on the projected severance tax loss in the DRIA, there would be an additional $269,000 per year in federal mineral royalties lost to Wyoming. An additional $291,000 will be lost annually to the federal government. The DRIA also fails to acknowledge and evaluate the impact on the budget of OSMRE to implement and oversee the significant regulatory changes imposed by the Proposed Rule. Finally, the Abandoned Mine Land fee collection would be reduced by $142,500 per year, and Black Lung fee collections would be reduced by $260,000 annually in Wyoming alone.

The financial and regulatory impacts on industry also must be evaluated in light of the current and present market conditions. For example, one additional alternative that needs to be incorporated and evaluated in the DRIA and DEIS is whether the impact of the costs to implement the Proposed Rule would result in a decision to close a mine instead of a mine operator attempting to comply with the new regulatory program. The Proposed Rule increases costs and regulatory uncertainty, particularly in the area of bonding. These factors, coupled with the current market conditions, may result in a decision to close a mine that is or may become marginally competitive. This would represent a completely different set of financial impacts and regulatory burdens for both the regulated

industry and WDEQ. But this scenario was not evaluated in the proposal in sufficient detail, and must be analyzed before any regulatory decision can be finalized.
In short, the impact of the Proposed Rule on state expenses, state and federal tax revenues, and on local and regional economies is grossly underestimated in both the DRIA and DEIS. This flaw demonstrates that OSMRE simply does not recognize the true impacts of the Proposed Rule. It also highlights the fact that OSMRE does not understand and failed to consider key state and regional differences when developing the Proposed Rule. This reality calls into question the basic support and foundation for the entire proposal.

Not Supported by Sound Science

The Proposed Rule has several requirements that have no scientifically defensible justification, such as requiring biological monitoring and the development of biological index values of intermittent and ephemeral streams.

The Water Quality Division of WDEQ has been conducting bioassessments using multimetric bioassessment protocols on perennial streams and rivers for over 20 years and has one of the nation's most robust bioassessment programs, with numerous peer reviewed publications. It is widely recognized in peer-reviewed scientific literature that the highly variable and naturally harsh conditions of intermittent and ephemeral systems in the West support native biological communities that are spatiotemporally variable and naturally tolerant to a broad range of environmental conditions. Thus, the use of biological communities from intermittent or ephemeral waters as diagnostic aquatic indicators of anthropogenic stress is limited at best; the cost and resources required to develop indices, in addition to actual monitoring of these highly variable systems, would be substantial. Biological monitoring of any stream with less than perennial flows imposes a regulatory burden that will provide little to no scientifically defensible data as it pertains to the implementation of the Proposed Rule.

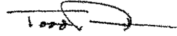
The Proposed Rule also does not account for regional or natural variability in stream types, water quality conditions, natural vegetation types, climate, groundwater and surface water hydrology, or mining methods. Most ephemeral streams in the West naturally have no riparian vegetation because by their ephemeral nature, they lack the natural hydrology for maintaining riparian vegetation. In addition, many perennial and intermittent streams naturally do not have 100 feet of riparian vegetation on each side of the stream channel due to hydrology and valley type. Requiring establishment of 100 feet of riparian vegetation on each side of a stream as a reclamation standard, regardless of natural hydrologic or riparian conditions, not only has no scientific basis, is likely impossible to accomplish in Wyoming.

Baseline monitoring of an entire suite of water quality parameters, as mandated by the Proposed Rule, may be valuable in understanding what parameters of concern may be present. However, requiring continued monitoring of that full suite of parameters, regardless of whether a parameter is ever detected or is detected consistently at low levels, has no scientific basis and will not result in water quality improvement or protections. The result is increased regulatory and financial burdens without corresponding environmental benefit.

Conclusion

In summary, WDEQ remains committed to effective regulation and control of surface mining operations in Wyoming. We believe in our core mission of environmental protection through effective and efficient governance. OSMRE's Proposed Rule is not effective or efficient governance. It is a one-size-fits-all national regulation that is divorced from the realities of differing regulatory and environmental climates amongst the states. We ask you to withdraw the Proposed Rule and work with your state partners to craft a regulatory proposal that works for state regulators and our regulated industries, while simultaneously protecting the environment within the statutory mandates established by Congress.

Sincerely,



Todd Parfitt
Director

Attachments (6)

cc: Office of Wyoming Governor Matt Mead

THE STATE of ALASKA

GOVERNOR BILL WALKER

Department of Natural Resources

DIVISION OF MINING, LAND & WATER
Mining Section

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Minerals Property Management Main: 907.269.8642
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October 26, 2015

Joseph G. Pizarchik
Director
Office of Surface Mining Reclamation and Enforcement
1941 Constitution Avenue NW
Washington, DC 20240

Re: Technical Comments on the Proposed Stream Protection Rule, Draft Environmental Impact Statement, and Draft Regulatory Impact Analysis

Docket ID: ***OSM-2010-0018*** **Proposed Stream Protection Rule**
OSM-2010-0021 **Draft Environmental Impact Statement**
OSM-2015-0002 **Draft Regulatory Impact Analysis**

Dear Director Pizarchik:

The Alaska Department of Natural Resources (AKDNR) appreciates this opportunity to submit comments regarding a Proposed Rule concerning stream protection published by the Office of Surface Mining (OSMRE). This rule appeared in the Federal Register on July 27, 2015 at 80 Fed. Reg. 44436. In addition, OSMRE requested comments on the draft environmental impact statement (DEIS) and a Draft Regulatory Impact Analysis (DRIA). In total, these three documents represent over 3000 pages (a 265-page Federal Register notice of the proposed rule (the draft rule that appeared on the OSMRE website was 1238 pages), along with a 1,267-page draft EIS and a 608-page draft Regulatory Impact Analysis). Even though these documents contain complicated rule changes and supporting documentation, OSMRE expected the public and the state Regulatory Authorities (RAs) responsible for administering coal mining in primacy states to review and provide meaningful comments in a very short period of time. OSMRE had five years to develop the rule, it only gave Alaska and other primacy states responsible for implementing the rule a period of 60 days review. To address this short review time, the State of Alaska on August 28, 2015 requested a 120-day extension to the comment period. On September 10, 2015, OSMRE published in the Federal Register that the comment period for these documents was extended only 30 days, until October 26, 2015.

AKDNR administers the Surface Mining Control and Reclamation Act (SMCRA) in the State of Alaska. The State of Alaska has vast coal resources that

span from Arctic tundra to coastal forests. Throughout, there are countless streams and waterbodies that the program must consider and protect. Because of the potential impact of these regulations to our approved program, AKDNR has been following this rule making for the past five years and participated in early scoping meetings held by OSMRE. To help OSMRE develop the rule we provided information to OSMRE about the extent of Alaska coal resources, locations of current permits, and locations of proposed mining areas. This information was provided so that the proposed rule fully considers the impact it will have to the State of Alaska. We have also followed the treatment of state regulatory programs who signed on as cooperating agencies to help develop the rule and the DEIS. It appears that these states were quickly cut out of the process and in the end not afforded the review or consideration required under NEPA.

As currently drafted, the proposed stream protection rule is a significant departure from the current regulatory framework that deals with the protection of streams under SMCRA. Based on AKDNR's review of these documents, these changes represent a major rulemaking of proportions not seen since the promulgation of the permanent program regulations in 1979. The documents involve a significant rewrite of many portions of OSMRE's current rules in a number of critical areas that impact the implementation of SMCRA that are beyond the original scope of the stream protection rules, and in some instances, appear to be beyond the scope of the statute itself.

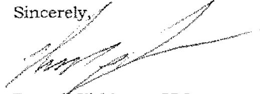
In Table 1 of this document, AKDNR provides numerous specific comments on the proposed rule changes and where possible provided alternative language to help clarify the proposed rules. Some items, such as the permit nullification provision, are troublesome in that they are unclear and seem to remove administrative due process afforded to operations in Alaska. There seems to be a concerted effort in the proposed rule to remove any regional differences and discretion afforded to states under SMCRA. An example is the requirement for a minimum suite of water quality criteria that needs to be collected from baseline through the life of mine monitoring. From our review of these criteria, it appears that the criteria were developed for addressing acid mine drainage and Selenium. Based on our experience regulating coal mines in Alaska, these issues have not been present. There is no provision in the proposed rule to modify this list or remove items that are not a concern in Alaska coal mining regions.

As stated above, AKDNR provided information to help OSMRE conduct a reasonable analysis of the proposed rule on Alaska as required by NEPA. Table 2 and 3 list Alaska concerns with the draft environmental impact statement (DEIS) and a Draft Regulatory Impact Analysis (DRIA). The overarching theme of these concerns is that Alaska was inappropriately lumped with Oregon and Washington as the Northwest Region. Because of Alaska's unique location, climatic conditions

that differ from the Pacific North West, and Alaska's coal reserves, Alaska should have been separated into its own region. The DEIS and DRIA also did not consistently and thoroughly consider Alaska in its review of potential impacts. The DEIS and DRIA incorrectly narrowed the Alaska coal region down to two basin ignoring a new coal mining project that AKDNR is actively reviewing, as well as significant metallurgical and thermal coal resources in northwestern Alaska. Even in the coal regions OSMRE did review, OSMRE was inconsistent in its review. Within the DEIS, Alaska coal basins were narrowed down to two basins. Throughout the Affected Environment and Environmental Consequences chapters the DEIS failed to consistently consider and analyze impacts of the rule on both basins. The DRIA for the most part did not take the time to consider both basins and focused only on the Nenana basin.

In addition to submitting these comments AKDNR fully endorses and adopts by reference the three sets of comments submitted by Interstate Mining Compact Commission dated October 23, 2015 on the Proposed Rule, the DEIS and the DRIA. Thank you for this opportunity to comment and please contact me at (907) 269-8650 if you have any questions or need clarification for concerns outlined in this document.

Sincerely,



Russell Kirkham, CPG
Manager, Coal Regulatory Program
Alaska Department of Natural Resources

Cc: Mark Myers, Commissioner, AKDNR
Ed Fogels, Dep. Commissioner, AKDNR
Brent Goodrum, Director, ADMLW
Marty Lentz, Chief, ADMLW-Mining Section
Greg Conrad, Director, IMCC

Attachments:

Table 1: Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436
Table 2: Comments on the Draft Stream Protection Rule Environmental Impact Statement Dated July 2015
Table 3: Comments on the Draft Regulatory Impact Analysis of the Stream Protection Rule Dated July 2015
ADFG Response to Kirkham OSM Stream Protection Revision #1.pdf

Table 1: Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
General comment	"best practices"	44436			OSMRE has stated that this rule is meant to codify best practices, but the states have not been adequately consulted with in order to determine these best practices used in the different mining regions.
General comment	General	44436			Consider the workload impacts of this rule, time it takes to process a permit. OSMRE grossly underestimates this; additional time for revisions, chias, etc.
Impacts on Aquatic Ecology		44440			*"Propose to adopt standards that would minimize mining through perennial and intermittent streams...revised standards would require that the permittee restore both the hydrological form and the ecological function of the mined through stream segment."* The feasibility mentioned are only related to midwestern or eastern rehabilitation, Are there any feasibility studies for western or northern locations?
Impacts on Aquatic Ecology		44441			*"backfilling techniques consider impacts on electrical conductivity, by requiring that excess spoil fills be constructed in compacted lifts, and by incorporating elements of the Forestry Reclamation Approach into out soil reconstruction and revegetation rules."* Eastern and/or Appalachian standards cannot be applied broadly. It is well documented that this type of reclamation does not work well in the west and north for reclamation practices. There will need to be further studies and evidence on the how the reforestation approach be implemented in arid and northern locations or virtually all locations outside of Appalachia.

Table 1 Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Definitions	Biologic Condition	44469	701.5		*They provide a quantitative comparison (often referred to as an index of biological or biotic integrity) of the ecological complexity of biological assemblages relative to a regionally-defined reference condition.* The ecological function of a stream is the role it plays in providing ecosystem services. As such, this is largely a qualitative assessment (for example, a transitional pool-riffle system providing short term sediment and woody debris storage, with deep pools for fish overwintering habitat) rather than a quantitative measure or index value, and varies by stream reach and season. Addition of quantitative measures of biological condition to this qualitative assessment results in a confounded analysis that can make it difficult at best to separate correlation from causation. Our experience is that biomonitoring that results in establishment and monitoring of long-term trends is the appropriate goal for such projects. Such long-term data bases (e.g., from four to over 20 years) exist for several large hard rock mines in Alaska (Red Dog, Fort Knox, Greens Creek, Kensington). See Attached Comment letter: Ott AKADF&G Dated Oct 5, 2015 to Kirkham AKDNR
Invasive Species		44491	780.12(g)		Generally: How do you define the species considered "invasive"? Is this a federal noxious weed list, or the State's noxious weed list (which is influenced more by agriculture, and in some ways irrelevant for reclamation), or a listing in some other category (i.e. AKEPIC's invasiveness ranking). If this is not a clearly defined source to reference, then anyone could choose what they feel is "invasive", and the species considered invasive would be considerably inconsistent. This is something that state RAs should be given flexibility in defining and applying. This could prolong bond release indefinitely potentially. Also, what if the landowner would like to plant a non-native species? This may infringe on property owner's rights to plant as he sees fit on his land. http://aknhp.uaa.alaska.edu/botany/akepic/non-native-plant-species-list/#content

Table 1 Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Invasive Species		44491	780.12(g)		*"the revegetation plan include the measures that the permittee will take to avoid the establishment of invasive species on reclaimed areas..."* Is there a defined timeline for the monitoring of invasive species establishment? For example, white sweetclover has a seed viability of up to 80 years. Also, how would an invasion be determined as natural dispersion from infested nearby sites (i.e. wind, water), or by anthropogenic introduction (i.e. contaminated equipment)? If there is no distinction, would it be the responsibility of the restoration agency to manage invasive species outside of their project area just for the sake of maintaining these rules and so invasive species do not become established?
Revegetation plan		44491	780.12(g)(2)(ii)		Also, in (g)(3)(ii), what specifically do you mean by "a permanent vegetative cover that *resembles* native plant communities in the area"? This needs a better definition of resemble. Resemble in the size of plants? Resemble the family of native plant communities? Please define.
Diversion		44517	780.28		*We invite comment on whether the design event for a temporary diversion should be raised to the 25-year, 6-hour event to provide added safety and protection against overtopping.* Currently the RA has the discretion to raise to a higher level if conditions warrant. The increase to a 25 year 6 hour event is an unnecessary increase in cost that could be better used for other reclamation activities. This discretion should be left with the RA.
Performance Standards	Sediment control Structures	44554	816.57(c)		This prohibition on the placement of sediment ponds in the stream is counter intuitive when an perennial or intermittent stream is authorized to be mined upstream of the proposed sedimentation pond. This appears to increase the risk of offsite impacts since the stream valley is the low spot where all flow from the active and reclaimed areas are directed. An appropriately sized sediment pond placed in the valley below mining would provide protection to downstream fish and wildlife resources without a significant increase in disturbance area or length of stream lost.
	Durable Rock Fill	44561	816.73		The removal provision regarding durable rock fill should not apply to existing mines, the judgment of the regulatory agency should be deferred to here.

Table 1 Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Revegetation plan		44566	816.97(f)		*"We cannot envision any scenario in which introduced species would be either desirable or necessary…"* Should the word "introduced" be "invasive"? The word introduced makes it seem as though there is no other options other than native. See comment below. Generally, the availability of native revegetation materials to Alaska is not practical for large projects and quantities of materials. This is based on the demand of specific species. Commercially available revegetation materials typically have supplemental non-native species to meet the demands of quantity of product. Therefore, it would be difficult to supply revegetation materials given the proposed speculations of "native and non-invasive". To help correct this, we suggested adding language like: Every effort will be made to contact a federal, state, or municipal agency (or regulatory authority) if unable to acquire a commercially native revegetation source. If native species are unavailable, an alternate revegetation mixture will be approved under the direction of the regulatory authority or an agent who specializes in revegetation and seed sourcing.
Federalism Executive Order 13132	federalism	44583	none		The preamble states that this rule would not have significant federalism implications. However, this rule proposes states to obtain approval from the FWS before issuing state permits in certain circumstances, indicating there are federalism issues here.
permit renewal	renewal	44591	774.15(c)(viii)		The requirement for a regulatory authority to confirm accuracy of the analysis required by 773.15(e) during renewal is unduly burdensome on the RA. Further, it does not appear to be authorized by the SMCRA statute.
reclamation cost estimate		44596	780.11(c)		Revisions to this rule takes away flexibility for states to make adjustments and modify to fit state programs.

Table 1 Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Revegetation plan		44597	780.12(g)		Should the word "introduced" be "invasive"? The word introduced makes it seem as though there is no other options other than native. See comment below. Generally, the availability of native revegetation materials to Alaska is not practical for large projects and quantities of materials. This is based on the demand of specific species. Commercially available revegetation materials typically have supplemental non-native species to meet the demands of quantity of product. Therefore, it would be difficult to supply revegetation materials given the proposed speculations of "native and non-invasive". To help correct this, we suggested adding language like: Every effort will be made to contact a federal, state, or municipal agency (or regulatory authority) if unable to acquire a commercially native revegetation source. If native species are unavailable, an alternate revegetation mixture will be approved under the direction of the regulatory authority or an agent who specializes in revegetation and seed sourcing.
Monitoring	Hydrologic Balance	44649	816.34(d)(1)		The requirement to report significant events of precipitation to the RA will require action by the RA as well, creating an increased regulatory burden. In Alaska we currently receive reports of significant events when there is a discharge of failure at a sediment control structure. All precipitation events are reported on a monthly basis and are addressed by the inspector in the field as needed.
Permitting	premining use	44670	780.28(b(2)(i)		What is the authority to not allow an activity that might preclude a premining use or designated use under section 101(a) or 303(c) of the CWA?
Permitting	Reclamation Plan: Plan to Address or Avoid Invasive Species	4E+05	780.12(g)(1)(xi)		Unrealistic to require. Problematic if bond release is precluded where an invasive species is present because it may be beyond the ability of the RA/permittee to avoid--e.g. Japanese bamboo in MD, or where a bird deposits an invasive plant seed. Bond release may become unattainable. Further, the term "invasive species" should be allowed to be defined by each state RA. To the extent a landowner might want to plant a species otherwise considered "invasive," this might infringe on landowner rights.
Permitting	Maps submitted with application: public water supply	4E+05	783.25(a)(11)		Permit applicant might not be able to submit location of any public water supply, as this information may be confidential for security reasons.

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Land Reclamation	Postmining Land Use	44507 44608	701.5 780.24(a)(4)(ii)		Postmining land use options are going to be limited from previous use. Changes to requirements here may severely complicate the ability to attain higher or better use determinations. More a burden on landowner than the RA, but will require significantly more time for review etc., large burden on RA resources.
Land Reclamation	Post-Mining Land Use	44507 44608	780.24(a)(4)(ii)		Rule requires that permittee include comments from state or local agency that approves proposed land use. This should only be required for changes in land use from premining. If it doesn't need to be approved, shouldn't have to provide so much information. Note also that several states do not have zoning or planning entities that do such approvals. Provision should also be made to make clear that an agency's failure to make comments would not impede application process.
Permitting	Definitions: Reassertion of Jurisdiction	44466 44586	700.11(d)(3) 701.5		Will RA be forced to reassert jurisdiction in any case where an inaccuracy is identified, even by a third party? Even years after reclamation completed? What is a "material" fact here? This requirement could be unworkable and unreasonable. By making reassertion of jurisdiction mandatory for the RAs, this also has resource implications for RAs. Would an RA be required to investigate every alleged misrepresentation of material fact? The lack of a statute of limitations (applies to all past permits under the permanent SMCRA program) is unreasonable and creates uncertainly for operators and state RAs. This uncertainty could also impact the ability to obtain bonds. If there is no statute of limitations, could apply to operations as far back as the 80's, where company won't exist any more in many cases, meaning liability falls on RA. Could be especially problematic for long term treatment obligations. Uncertainty will have negative affect on bond availability. What SMCRA statute authority is this rule promulgated under? There does not appear to be authority for this provision.
Definitions	Adjacent Areas	44467 44586	701.5		Subsection (a) should be adjusted by changing "possibility" to "probability" or "high likelihood". Otherwise, it is too expansive. Recommend deleting subsection (c) as it is already covered in (a). However, if OSMRE retains subsection (c), we recommend changing "might be affected" to "may realize physical or hydrologic adverse impacts".

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Land Reclamation	Definitions	44468 44586	701.5		AOC - Restore AOC to condition before mining. How far back does "before mining" go? Difficult to determine in locations with long history of mining (e.g., VA has 200 years of mining). May be impossible. What is the authority to look back before passage of SMCRA. Unrealistic standard.
Definitions	Bankfull	44469 44587	701.5		Who determines where the bankfull is located (permittee, RA, Corps)? Definition relies on Weather Service. Unclear if applicable to ephemeral streams. If so, we recommend it should only apply to perennial and intermittent. By traditional definition, ephemerals don't have banks. Determination requires specific training - ROSGEN. May have resource and financial impact on states to obtain/train experts. A suggested alternative approach could be to base this on the recurrence interval or the centerline measurement. Further discussion with state RA's should occur on this issue to come up with a science-based solution.
Definitions	Biological Conditions	44469 44587	701.5		Monitoring and assessment of ephemeral streams is not practicable due to the nature of ephemeral streams. Further, it is not clear if there is authority to do such in SMCRA. Inclusion of ephemeral streams raises a resource impact for states, especially those who don't already have the required expertise in-house. This has major resources implications to just identify all the ephemeral streams that may occur on a mine site in Alaska.
Definitions	Cumulative Impact Area	44469 44587	701.5		Subsection (b) should be revised by adding at the end "or other suitably-sized watershed as determined by the regulatory authority." Subsection (c) (6) is too broad and unworkable and thus should be deleted. The interconnectedness of mines owned or controlled by the applicant could extend well beyond the permit area to illogical extremes.
Definitions	Biological Conditions	44469 44587	701.5		Recommend deleting the phrase "physiological state" or clarifying what it means.
Revegetation plan		44469 3 44469 4	817.111 817.116		Same as above comments concerning timeline for 780.12(g). Is there a defined timeline for the monitoring of invasive species establishment? For example, white sweetclover has a seed viability of up to 80 years. Also, how would an invasion be determined as natural dispersion from infested nearby sites (i.e. wind, water), or by anthropogenic introduction (i.e. contaminated equipment)? If there is no distinction, would it be the responsibility of the restoration agency to manage invasive species outside of their project area just for the sake of maintaining these rules and so invasive species do not become established?

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Definitions	Ecological Function	44470 44587	701.5		This definition relies on a USACE Draft document for a specific region (Central Appalachia). Is not applicable to other Regions. Streams elsewhere in the country are vastly different than those in Appalachia. Particularly, streams in Alaska. Further, the draft is 5 years old OSMRE relies on this draft, but if it is not final after 5 years, this indicates that perhaps there are problems with it. This definition is vague and based on an interpretative standard, which will lead to regulatory and industry uncertainty in implementation. Ecological function cannot be guaranteed to be restored even if form is restored, so there is no way to accurately predict when function will be restored, if ever. Therefore, bond amounts can not be confidently determined - release of the bond would take an indefinite amount of time. The surety industry will not likely write a bond with such uncertainty. This rule might also require RAs to hire new staff to address this issue.

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Definitions	Stream Types	44470 /44472/ 44476 44587-44588	701.5		Definitions of stream types in general are ok because they align with USACE's definitions but may not be appropriate for Alaska. However, there is still some ambiguity in differentiating between stream types. The definitions of intermittent and ephemeral streams in the proposed rule are not appropriate in most of Alaska primarily because of the rule's treatment of flow resulting from melting snow, ice, and glaciers. Such sources are major drivers of stream flow in much of Alaska during the open-water season, and may be the primary source of water for ephemeral streams (rather than rainfall). Similarly, the proposed definitions of perennial and intermittent streams are not representative of streams in much of Alaska, particularly as the definitions relate to the roles of surface water and groundwater in maintaining flow. These definitions also do not seem to include consideration of the substantial role hyporheic flows can have in developing or maintaining the productivity of a stream. Intermittent streams in Alaska may have substantial hyporheic flow that can maintain developing salmon eggs (such as the lower mile of the Delta River) through the winter, while runoff and meltwater provide the majority of water seen flowing above the stream bed. Section 702(a) of SMCRA does not provide authority for the USACE to make such determinations. OSM requested comment re. should USACE have the final authority to determine stream types? The Corps is not obligated to do these determinations under SMCRA, so they will not be done in timely manner. Placing USACE as the final authority would remove the RA who in Alaska has better ability to set stream types. Further, there appears to be no SMCRA statutory authority to allow the Corps to make these determinations, particularly in primacy states. It would be inappropriate for the USACE to make a determination pursuant to SMCRA. Further, having a federal agency (which does NOT administer SMCRA) make the final call adds a possibility of unnecessary administrative delays in state administration of primacy programs.

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Definitions	Hydrologic Balance	44471 44587	701.5		Delete the phrase "which may in turn affect the biological condition of streams and other water bodies", since the term "hydrologic balance" is focused on water quality and quantity, not the biological condition of streams. Those impacts are adequately covered in other areas of OSM's and RA's rules. Furthermore, the potential list of "which" statements could be expanded to untold other areas beyond biological conditions, which is an unsupported result.
Definitions	Material Damage	44473 44588	701.5		Alaska does not find one definition is appropriate given regional differences within coal fields in the state let alone differences between Alaska coal fields and the rest of the coal producing regions in the United States. Experience to date is that states need discretion to develop and apply their own definitions. It is recommended that OSM delete the definition. If OSM retains the definition, the words "reasonably foreseeable use" in subsection (a) should be changed to "protected use", which is a term of art the states are more familiar with and that is more appropriately limited in scope. Furthermore, the concept of "adverse impacts" should be revised to read "long-term, permanent impacts", not "any adverse impact" to reflect a temporal component, as well as the fact that we are focused on impacts that cannot be mitigated. OSM could provide guidance or a requirement for states to set a material damage definition specific to their region(s) within their States.
Definitions	Waters of the U.S.	44478 44588	701.5		Citation to 40 CFR 230.3(s) is incorrect in that it refers to the new Waters of the US rule. This rule has been stayed and the proposed reference should be 230.3(o).
Land Reclamation	Regulatory Findings	44478 44589	773.15		There are so many required findings scatted throughout the proposed reg it makes it difficult to track. Collect list of all written findings that RA must make before approving a permit. Consolidating in this section would make it easier to track requirements.
Permit Conditions	Permit Conditions	44480 44590	773.17(e)(4)		Requires permittee to notify RA and other agencies of any permit noncompliance. How does RA enforce? General Comment: Permit conditions are located throughout the rule. Any and all permit conditions should be located in section 773.17 for clarity.
Land Reclamation	Permitting	44482 44593 44491 44597	779.19 780.12(g)(1)(ix)		It should be left to the state RA to determine what constitutes "native species."

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Permitting	Maps	44486 44594	779.24(a)(11) and (13)		Recommend adding "unless otherwise determined by the regulatory authority" at end of each of these sections in order to provide more flexibility to the states.
Maps		44487 44524 44595 44616	779.24(a)(27) 783.24(a)(27)		Delete the phrase "including those using hydraulic fracturing methods" as this is an unnecessary statement. Oil and gas wells are "fracted" to some extent at completion. Consider rewriting as: "The location and depth (if available) of all gas and oil wells within the proposed permit and adjacent areas, as well as the trace of any directional or horizontal drilling for hydrocarbon exploration or extraction operations"
Permitting	Reclamation Plan: Placement of Streams	44487 44596	780.12(b)(7)		Inconsistent. Rule requires on-site restoration of intermittent and perennial streams, but in another section, permittee is allowed to go offsite to mitigate. Corps requires offsite placement of streams in some instances.
Land Reclamation	Soil Handling/Organics	44488 44596 44542 44648	780.12(e) 816.22(a)		Will require more regulatory resources involving significantly more review time for soil handling plans and significantly more inspection time after plan approval, since all 3 soil horizons would have to be inspected, and careful and selective placement of overburden would be required. Inappropriate to require that root balls and other organic material be placed on top in all cases. May not be appropriate for all postmining land use, e.g., agricultural or pasture land. Suggest this be changed to specify that this is required if the land is being reclaimed to a forested land use. Also, there's an issue with having to store this material pending placement. Increased storage capacity will require disturbing more area (larger footprint). Inconsistency - the rule requires minimization of disturbance. May be an issue to save organics in steep slope areas especially. Alternate topsoil -- requires a lot more monitoring and analysis under the new requirement in the rule that alternate or supplementary soil be "better than" (currently "equal to or better than" requirements). Suggest the requirement be kept as it is, "equal to or better than." Another drain on regulatory resources.

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Invasive Species	General Comment	44491 44483	779.19 780.12(g)		It is repetitively mentioned that "Federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law..." The definition of practicality and the law are very different. The law is something that can be enforced, while something defined as practical has more room for interpretation, and therefore, less feasible for enforcement. How do you plan to enforce the interpretation of practicality?
Land Reclamation	Revegetation Plan: Invasive Species	44491 44596	780.12(g)(6)		Professional forester or certified ecologist must develop and approve plan. Why not biologists or other disciplines? Unnecessarily restrictive. Some states already have established guidelines put together by specialists or professionals within the state. This requirement is duplicative and unnecessary. Also, there is a question of whether a plan submitted to deal with invasive species will be considered normal husbandry, or if it will re-open the bond liability period. This may preempt state-specific best practices developed and already in place. This may have bond implications, since bond release is also tied to addressing invasive species.
Permitting	Reclamation Plan: Definition of Native Species	44491 44597	780.12(g)(3)(i)		Suggest a revision to ensure/clarify that native species definition is determined by state RA. Add: "as determined by the state" to existing language. Note: This language resides in several places in the rule.
Permitting	Cost Estimate to Restore Ecological Function	44492 44597	780.12(h)		How do you determine the cost of restoring ecological function? May be able to determine cost of restoring form, but cost of function is not determinable with sufficient accuracy. Permittee can't control function, but can be made to restore form. Can create conditions that would allow restoration of function, but can't guarantee. Makes bonding difficult because the RA can not accurately estimate timeframe for restoration of function. The time and cost to restore function could be extremely difficult to quantify for purposes of bond.

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Permitting	Conservation Easements	44493 44495 44599	780.16(d)(1)		If the requirement stated on page 44495, that under d(2)(ii), any riparian corridor must be protected by conservation easement or deed restriction is mandatory, then this would be problematic and interfere with private property rights as well as with the Alaska State Constitution where state land was concerned. Further, private property owners and Native Corporation would be impacted. State lands would also be impacted. Fencing restricts private landowner access to stream. Would also restrict wildlife from accessing stream and is counter to stated purpose of enhancing wildlife, etc. Invitation for comment on whether these requirements should apply to ephemeral streams - We recommend they do not.
Land Reclamation	Fish & Wildlife Protection and Enhancement Plan	44493 44599	780.16(c)		New requirement for a PEP for non-proposed/non-listed species. What is the legal authority to require protection of other species (besides proposed, and T&E)? Where do you stop? Beetles, ants, flies....? This would be unworkable. Also, there are not USFWS guidelines for PEPs for non-proposed/non-listed species. General protection of environmental resources protects the wildlife at-large, not necessary or practicable to develop specific protection plans for every possible organism. States also have their own biologists or state FWS they confer with to reduce impacts on and develop general plans to protect fish and wildlife. This is unnecessary and duplicative. Some existing PEPs (i.e. PEPs for Indiana Bats and Northern Long-Eared Bats) encourage deforestation of large areas by limiting the cutting season causing operators to cut large areas at a time, or have to wait another year for the next cutting season.
Permitting	Reclamation Plan: Reestablishment of Riparian Areas	44494 44599	780.16(d)(1)(ix) & (x)		Associated with F&W Protection and Enhancement Plan and requirements that the riparian area be permanent. Obligation to fund maintenance by watershed groups is problematic. Suggested ways to assure performance would be problematic if became requirements, such as conservation easements that would require landowner consent (or would be a regulatory taking, which is an added cost to the state), and fencing livestock away from streams would have unintended consequences of blocking access by certain wildlife (e.g. deer, elk) and landowner access to stream.

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Land Reclamation	Mitigation for Native Forest (Wildlife Enhancement) USFWS Approval PEPs	44495 44600	780.16(e)		There was invitation to comment as to whether the RA may consider mitigation measures approved under CWA as satisfying the SMCRA requirement for mandatory enhancement. To do so would be to impermissibly give authority to regulate under SMCRA to Corps/EPA. It could also slow down SMCRA permitting, reclamation, and bond release to require a determination from another agency on the adequacy of a mitigation measure.
Permitting	Bonding Requirements	44495 44639	800.12(e)		If you mine and impact a stream segment -- limited to 2 types of bonds -- surety and collateral. If you have a self-bond currently in place at existing operations, do you have to adjust and impose the requirement to obtain the surety or collateral bond? The language of this rule indicates that it would require such adjustment, which could require RA action and affects resources. Further, if applicable to existing operations, this could result in companies being unable to obtain bond instruments, or walking away, making the RA liable/responsible for cleanup.

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Permitting	Coordination with other agencies	44495, 44614, 44621 44639	780.16, 783.20(d), 784.169e) 800.9(d)		Rule requires that SMCRA permit cannot be issued until EPA (CWA) and USFWS have "approved" their pieces. This raises questions who has authority to release Corps mitigation bond, may require affirmation by two separate authorities, creating more risk for sureties. Reliance on CWA authority erodes authority of state SMCRA RAs. There appears to be no statutory authority under SMCRA for this provision. This provision also requires that USFWS must approve certain PEPs (including for proposed and listed species) in writing before a permit may be issued. There is no authority under SMCRA to require this. Fish and Wildlife Service is not a federal agency that administers SMCRA, nor does SMCRA require that primacy states obtain FWS approval before issuing a state permit. This regulation exceeds the statutory authority, particularly with section (e)(2)(iii), which states that if the Service field office does not agree with a state regulatory authority's decision under (e)(2)(ii), then the issue must be elevated, and under (e)(2)(iv), the state regulatory authority may not approve the permit. Even if this regulation were authorized by statutory authority, the resolution process outlined to resolve any disagreements with the Service is completely unclear. The regulation suggests elevating the issue through the state agency, OSMRE, and the Service, "for resolution." This process could take years potentially, and it is unclear what steps must be taken to obtain "resolution." Further, a time frame for any USFWS response needs to be established. Add language stating that USFWS be required to respond to the state RA in writing as to the approval of PEPs within 30 days, and if the RA has not received a response within 30 days, the state RA can assume approval and issue the permit. Also, in the case of a dispute, there also must be a timeframe added by which USFWS must respond to allow for elevation procedures to begin, if required. No required response time allows FWS to effectively veto a permit without explanation. A permit is subject to being held hostage by another agency. Similar to CWA permit issue pending approval by EPA.

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
					Question whether this requirement is implementable due to USFWS resources. Experiences in the states indicate that USFWS does not have resources available to make required approvals in timely fashion. Rule should require USFWS action within 30 days. (states only have 10 days to submit information to FWS). Failure to respond will be deemed as approval and the state can move forward with the permit. This reference is also vague and confusing.
Permitting	Reclamation Plan: Baseline Info on Ephemeral Streams	44496 44600	780.19		Monitoring requirements for ephemeral streams are impracticable. Because of irregular flow frequency, can not conduct required sampling or make required determinations. To the extent that samples can be obtained, they will not be representative. Ephemeral should be removed from sampling requirements. Ephemeral sampling requirements would disrupt ability to comply with 12 continuous month monitoring requirement due to dependence on precipitation events. In this way, the requirement doesn't account for Regional differences (dry climes/frozen)-- (e.g. AK, WY, UT). Overall there is not going to be an impact on the hydrologic impact area re: ephemeral streams.

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Permitting	Permit Nullification for Inaccurate Information	44496, 44624 44600	780.19(k), 784.19(k)		*Permit must be nullified if agency finds information applicant provided is "substantially" inaccurate.* This provision exceeds the statute. It is overly broad and will have unintended consequences that far exceed its supposed purpose. This provision should be removed from rule. The proposed rule is vague and overly subjective. For instance, the rule focuses on data which a regulatory authority issues a permit "on the basis of." What constitutes data that a RA issues a permit "on the basis of"? What if this is data that was already cooberated by the RA? Is the effect of this rule retroactive? The rule and preamble is unclear what constitutes "substantially inaccurate." This provision also may conflict with an Alaska statute regarding revocation of permits that requires opportunity for hearing before revocation. See AS 27.21.030(6). The proposed change is also unreasonable in that it does not consider whether the inaccuracy had any impact, or whether it was intentional or inadvertent. The way the rule is written there is not option for an administrative review. This would wreak havoc if individuals could simply raise an issue with a particular alleged inaccuracy and force the RA to conduct an investigation as to whether to nullify a permit. This rule usurps state regulation and administrative process already in place to scrutinize data and address issues. If void, then would the previous years of mining be considered mining without a permit? Is such a harsh remedy envisioned by SMCRA? This rule could have the effect of actually discouraging reclamation if companies walk away when permits are voided, leaving reclamation to the state RAs. Further, this rule will discourage open and honest communication from operators who may fear permit nullification for disclosing discovered data errors. Operators should be encouraged to address any data collection issues with the RA. There is no indication what problem this rule is attempting to solve. If this requirement remains, there needs to be an extensive process outlined to address alleged substantially inaccurate data, and flexibility in addressing next steps and solutions, not simply nullification of the permit. This rule also could effect a miner's ability to obtain bonding from reputable sources.

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Permitting	Parameters of Concern	44497 44600- 44601	780.19 (b)(4) and (c)(2)		Requirement is unworkable, expensive, unnecessary. No reflection of regional concerns. Parameters of concern should be left to RA. One size does not fit nationwide. If the parameters are to be retained then the needs to be a mechanism to add/remove parameters based on regional differences. Sampling frequency should also be left to RA to determine given regional differences. There is concern about whether sampling must continue where there have been non-detects over some period of time. The waiver language contained in subsection (f)(5) should also be applicable throughout this section of the rule.
Permitting	Baseline	44499 44602	780.19(e)		*Finally, proposed paragraph (e)(2) would require that the bioassessment protocol result in the calculation of index values for both habitat and macroinvertebrates and provide a correlation of index values to the capability of the stream to support designated...* The major concern we have with the proposed use of bioassessment indices is that they are portrayed as a finite number that will be used to judge whether a mine is in compliance with the rule or not. Picking any specific number to define an aquatic system, even if multiple sample years and times are included, does not take into account the high degree of natnral variability in our Alaskan aquatic systems. See Attached Comment letter: Ott AKADF&G Dated Oct 5, 2015 to Kirkham AKDNR
Permitting	Baseline	44499 44602	780.19(e)		The standard requirement for stream studies in Alaska is that benthic macroinvertebrates be identified to the "lowest practical taxonomic level." While identification to genus is practical for many benthic macroinvertebrates in Alaskan streams, identification down to family, subfamily, or tribe is all that is practical for some invertebrate families in Alaska, notably Chironomidae (midges). This can be problematic for both the regulating and regulated parties, since some midge genera are dependent on high quality water while others are frequently found in disturhed or degraded systems. See Attached Comment letter: Ott AKADF&G Dated Oct 5, 2015 to Kirkham AKDNR

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Permitting	Corroborative Sampling	44500 44603	780.19(j)		This requires significant clarification. Does this attempt to make more than a single spot check on a single sample? What does "a sample" mean? What is the purpose of this rule? This rule could put a significant additional burden on regulatory agencies.
Permitting	Permit Nullification	44500 44603	780.19(k)		Change the word "inaccurate" to "falsified". There are due process concerns here with regard to the ability to appeal these decisions. Since there are other safeguards in place, such as corroboration, is this really needed?
Permitting	CHIAs	44501 44604	780.21(a)(2)		Change the word "will" to "may". Otherwise, it is too broad and imposes unsupportable burdens on the state.
Permitting	CHIAs	44502 44604	780.21(b)(6)(i)		Delete "numerical terms" and insert "be expressed in applicable state or federal water quality standards (or criteria)". This is more accurate and encompasses not only numerical terms but narrative standards as well.
Permitting	CHIAs	44502 44604	780.21 (b)(6)		This section should be deleted altogether given our position on the definition of "material damage."
Permitting	CHIAs	44502 44604	780.21(b)(8)(i)(B)		Add the word "long-term" before "exceedance". Otherwise it is too expansive.
Permitting		44502 44604	780.21(b)(8)(ii)		Delete everything after the word "thaws" as it will be difficult to measure increases in damage from flooding. Also, change the word "changes" to "increases" as this is more accurate and limiting.
Permitting	PHCs	44503 44605	780.22		This section needs to be adjusted based on previous comments regarding parameters of concerns and monitoring. Delete subsection (b) and defer to the existing regulatory language. The use of the term "within" in Subsection (b)(1)(i) is of particular concern because there are always adverse impacts within the permit area. This should definitely be removed
Permitting	CHIAs	44503 44605	780.21(c)(2)		Delete this requirement regarding renewals. We already do this as a matter of course since we update CHIAs as necessary. This merely adds an unnecessary time period.
Permitting	HRPs	44503 44605	780.22(b)(3)(i)		Delete the word "may" from "adversely affects" since some water replacement may not end up being required.
Permitting	Monitoring	44504 44605	780.23(a)(1)(iii)(A)		Change the word "include" to "consider" since some states are not able to establish up gradient monitoring sites due to land ownership or location of mine within the watershed or ground water aquifer.

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General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Permitting	Monitoring	44505 44506 44606 44606	780.23(a) 780.23(b)		Requirement is unworkable, expensive, unnecessary. No reflection of regional concerns. Parameters of concern should be left to RA. If the parameters are to be retained then the needs to be a mechanism to add/remove parameters based on regional differences and based on the results from baseline water quality data and analysis of overburden and coal.
Permitting	Mapping of Public Water Supplies	44523 44615	783.24(a)(11)		Mapping for location of public water supplies and associated well head protection areas may be illegal and unobtainable under state law, which precludes that info from being made public, so industry would not be able to get info into permit application (e.g., IL, AR). Regulators don't do this now, so it would be a resource impact.
Permitting	Bonding Requirements	44536 44640	701.5 800.14(a)(2)		Bonding has to cover "impacts to adjacent areas", not jut permitted area. Unclear how adjacent area is defined. "reasonably possible" seems to be a very low threshold (too subjective). Depends on who is assessing i.e. average person vs expert. This is potentially an especially large area for underground mining. Adds angle of draw. New term includes perennial and intermittent streams. Most states don't currently bond for these areas. Will be difficult to calculate probable impacts to expansive areas, especially without authority to enter certain areas. OSMRE considered HUC 12 too large, but asked for comment on the appropriate minimum size for adjacent area that should be bonded. The rule should remove all reference to a specific minimum size and leave the size of the adjacent area up to the state authority.
Bond or financial assurance replacement		44539, 44644	800.30(a)(2)		This rule does not contain criteria for rejection of surety.
Permitting	General comments on Bonding Requirements: Baseline Monitoring Section	44540 44600 44642	800.42(b)(2)		General Comments on Bonding: The combination of new bonding requirements and uncertainty in the new required bond calculations will significantly inhibit the ability to attain bonds, and there is likely not sufficient capacity in the surety industry to cover/write new bonds. For example, new bond requirements for Ecological Function and stream function are difficult to calculate and involve indefinite periods of time (have no end point), creating substantial new risk for sureties. Companies would likely need collateral bonds, but many won't have the capital needed. The new requirements will also require significant agency resources and time to review, particularly if applicable to existing permits.

Table 1 Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Permitting	General comments on Bonding Requirements: Baseline Monitoring Section	44540 44600 44642	800.42(b)(2)		New bonding reqs will also be difficult for AOC variances, because under the new requirements, if post mine land use is not "implemented" in time ("before the end of the revegetation responsibility period", as required), establishing AOC on a site which was prepared for a postmine land use will be extremely expensive, much more so than if AOC was established in the normal course of contemporaneous reclamation. This will be especially onerous for mountaintop and steep slope mining. The rule requires the bond also cover the entire permitted area, not just the disturbed area, which would require larger bonds/more risk. Also, see above discussion about voiding permit based on substantial inaccuracy. Sureties may be reluctant to bond when a single event might void permit. Heightens risk. New regulatory burden to review multiple bond requirements and to continue to monitor for extended periods will be substantial. Calculating trust funds is expertise some states don't have in-house, will require new hires which states may not be able to afford. Unclear how this affects existing permits. If permit revisions or renewals would require application of new requirements, new bonds, could lead to forfeiture at many current mines, causing a burden to states and taxpayers. If company can't obtain bond, does this put it in forfeiture and will regulator be required to restore based on existing bond?
Permitting	Bonding Requirements	44540 44600 44642	800.9 800.42		Implementation of this alternative would wreak havoc on incremental bonding procedures and surety law and is unnecessary.

Table 1 Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Permitting	Bonding Requirements	44540 44644	800.40(b)(2)(vi)		*"alternative consideration: preclude any bond release on the permit until Postmine land implementation begins"* This provision requires operators to publish an advertisement in a local newspaper four times announcing an impending bond release and to include an analysis of reclamation plan and monitoring results. It does not specify how detailed this analysis should be (monitoring results could be several pages long) or who determines what constitutes a sufficient analysis. If it's the RA, this is a resource issue. Change language to refer readers to the state RA for more information on the analyses. May be outside the capacity of local newspapers, and would be inordinately expensive for such an ad if too much information is required.
Permitting	Bonding Requirements	44540 44645	800.42(a)(2)		RA may not release bond if review of monitoring data indicates "adverse trends" may exist that may result in material damage outside the permit area. Vague. Too subjective. What constitutes "adverse trend"?
Land Reclamation	Redistribution of Soil	44543 44649	816.22(e)(2)		*Comments invited re. sampling techniques* Requires company to have a plan for statistically valid sampling techniques for soil location and replacement depth. New requirement that requires more regulatory resources to implement (inspection time to verify). Preamble indicates this is based on EPA DQOs -- Comment invitation: should use of EPA methodology for statistically valid sampling be mandatory? No, too prescriptive and infringes on state authority. It should be left to the state RA to determine which statistical sampling method should be used.
Performance Standards	Certification of Drainage Systems	44544 44650	816.34(b)(2)		A certified engineer must certify all drainage structures after every two year precipitation event and the operator must submit a report to the RA within 48 hours. Will require RA to expend more resources to review report. Permittee would have to bave real time monitoring. Another RA resource requirement. Also, discussion of whether 48 hour window is too small for reporting on excess rain events. In some states, this window would be impracticable.
Acid and Toxic Materials Handling		44547, 44651	816.38		This rule appears to impact the ability to blend acid and alkaline; would require more review and inspection time.

Table 1 Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Performance Standards	Diversion Size Requirements	44549 44653	816.43		If approved, this requirement should not apply to existing or already-approved diversions, or it will result in numerous permit revisions. This would pose a huge RA burden. Would be practically impossible to evaluate and enlarge existing ditches. Solution looking for a problem. This has not been a problem and is not needed. States already have design criteria and have no problems with diversions.
Bonding	Bonding Requirements: Mitigation Bond Under 404 Permit as SMCRA Responsibility	44552 44656	816.57		Requirement to restore to ecological function adds a mitigation bond under a 404 permit as a SMCRA responsibility that would make the state SMCRA RA responsible for tracking the mitigation bond through the release, which is determined by the Corps. It raises a jurisdictional question and is unclear whether there will be 2 bonds and 2 bond releases required (1 SMCRA and 1 CWA) and whether the jurisdiction lies with the state RA or the Corps. The reliance on CWA authority erodes state authority. CWA authority must clear all bonds before a SMCRA bond release can occur. States would require new hires with expertise to determine ecological function and, as noted in comments on calculating an ecological function bond amount, though it is possible to restore form, it is impossible to guarantee restoration of ecological function, or to put a time frame on it. There are added risks of having to clear bond through two authorities and the difficulty determining an end time would make it difficult to obtain bond. It would also require more resources by the state RA to review 2 bonds. In any event, demonstrating "full" restoration of ecological function of a stream segment in order for bond release is difficult to quantify. No clear standards. How does this apply to ephemeral streams? What science or management tools exist to define this? Each RA would need to develop more objective standards here.
Land Reclamation	Disposal of Excess Spoils, e.g., Durable Rockfills, cast-blasting, etc.	44555 44559 44661 44662 44519 44612	816.71(g)(1) 816.71 780.35		Daily inspections by permittee, requires more report reviews by RA required to implement the excess spoils rules at 816.71. Regulatory resource impact. Daily inspections could increase likelihood of permit nullifications, especially if "substantial inaccuracy" is too broadly interpreted. Rule also requires establishment of postmining reclamation on the fill itself (new requirement).

Table 1 Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Bonding	Bond and Bond Release	44555 44656	816.57(b)(2)(iii)(C)		*You must demonstrate full restoration of the hydrological form of the stream segment.* Who defines (or where is) hydrological form defined? The way subsection (C) is written it appears a higher standard is required then found in (b)(2)(i) describing how a stream to be restored.
Permitting	Maps	44594	779.24(a)(2)		The word "underground" should be "surface".
Bonding	Structures	44608, 44645	780.24(d)(3); 800.42(a)(5)		It is problematic to require structure removed and land reclaimed at approximate original contour where structure not in use as part of postmining land use by the end of revegetation period. Does not consider situations were operator might not have control over use of the structure, and could impose on landowner rights.

Table 1 Comments on the proposed Stream Protection Rules found in Federal Register on July 27, 2015 at 80 Fed. Reg. 44436

Table 2: Comments on the Draft Stream Protection Rule Environmental Impact Statement Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Land Use	Planning	3-243	Section 3.7.3.6		This section states there is no specific land use data available for the Healy Valley area. The Alaska Division of Mining, Land and Water maintains planning documents for areas where coal mining is active. It appears the DEIS did not make an effort to review this plans. The state has no record in the DEIS of this information being requested or reviewed. htpp://dnr.alaska.gov/mlw/planning/areaplans http://dnr.alaska.gov/mlw/planning/areaplans/tanana/pdf/sub4_management_intent.pdf http://dnr.alaska.gov/mlw/planning/areaplans/tanana/pdf/sub4d.pdf http://dnr.alaska.gov/mlw/planning/areaplans/sumat/pdf/smap_2011_ch3_glenn_hwy.pdf
Introduction	Organization of this Document	1-2	Chapter 1, 1.0.2		According to this section this DEIS has been organized into nine chapters; Chapter 3 describes the affected environment. It breaks Chapter 3 down into 7 coal producing regions. Alaska is included in the "Northwest" Region along with Washington and Oregon. Reasoning for this breakdown is described more fully in Section 3.2.6 on page 3-83. Section 3.2.6 states that there are no current or proposed coal extraction mine permits in Oregon or Washington. I don't believe this is correct as the John Henry mine in Washington has been proposed for reopening. Because of the extraordinary differences in its affected environment due to its sheer size and geographic separateness from Oregon and Washington, Alaska should be separated out into its own chapter. For example, Alaska has a variation in climate zones that are not adequately consider in the DEIS. This is particularly pertinent when describing the affected environment in Sections 3.2 Geology; 3.3 Soils; 3.8 Biological Resources; 3.10 Recreation; 3.12 Utilities and Infrastructure and 3.13 Archaeology, Paleontology, & Cultural Resources.
Soils	Northwest Coal-Producing Region	3-101	Section 3.3.7		Section breaks the soils in Alaska down into three ecoregions but does not reference a figure or map depicting the boundaries of these three ecoregions. Also completely leaves out the northwest arctic ecoregion.

Table 2 Comments on the Draft Stream Protection Rule Environmental Impact Statement Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Topography	Northwest Region	3-122	Section 3.4.2.6		Even for the active mining area the description is minimal and incomplete. Compared to the description for the other regions, little is presented about the physical characteristics, geologic history and climate. In addition, the DEIS states there are two coal fields in Alaska but goes on to lump them as the interior coal fields even though the Matanuska coal field is in South Central Alaska and is a completely different climatic, physiographic and geologic setting then the Nenana Coal fields.
Topography	Northwest Region	3-123	Section 3.4.2.6	3.4-12	Figure does not cover all of Alaska's coal fields. Suggest they use or "Map of Alaska's Coal Resources Compiled by R.D. Merritt and C.C. Hawley, 1986: or similar source. http://pubs.dggsalaskagov.us/webpubs/dggs/sr/oversized/sr037_sb001.pdf
Water Resources		3-131	Section 3.5.2		Only discusses the Yukon River Basin and the Healy Valley streams. Does not address the Matanuska or any other part of the Cook Inlet in terms of Water Resources and they are quite disparate from Healy.
Affected Environment	Water Resources: Surface Water Overview	3-133	Section 3.5.2.3	Table 3.5-1	Was all of Alaska used in the determination of stream lengths, or just the Tanana Basin? If it's statewide, those numbers seem low.
Introduction	Area Under Considerati on	3-2	Chapter 3, 3.0.2		The chapter states tbere are only two areas with active or reasonably foreseeable mining. However, PacRim Coal has submitted two applications for a mine and associated facilities in the Beluga Coal Fields within Cook Inlet Basin. While the latest application was recently submitted the initial application was submitted to AKDNR in December 2012. This area has been in the stages of the permitting process since well before 2012 and to ignore its potential and exclude it from the Affected Environment section (estimated reserves ~2.3 billion short tons sub-bituminous; measured reserves 275 million short tons; DGGS publication 1986) discounts an area with a substantial amount of coal reserves for the Northwest Region.

Table 2 Comments on the Draft Stream Protection Rule Environmental Impact Statement Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Air Quality, Greenhouse Gas Emissions, And Climate Change	Northwest Region (Alaska)Regional Air Quality, Meteorology and Noise	3-228	Section 3.6.2.6		Only lists one Federal Class I Air Quality Area, Denali National Park. There are very likely others such as Lake Clark National Park.
	General Ecological Setting	3-302	3.8.8.1		Description give an incomplete assessment of the ecological resources in the in the coal fields. No effort was made to provide a complete picture other then a single resource.
Recreation	Northwest Region	3-343	Section 3.10.7		Tables I-26 through I-29 referenced in this section and found in Appendix I are very incomplete and do not list numerous state parks, national parks, and other significant public recreation and refuge lands within Alaska.
Recreation	Northwest Region	3-344	Section 3.10 Recreation	Figure 3.10-6	*"The coal fields in the Southcentral region fall mostly on the Kenai Peninsula…."* This statement is incorrect. There are also the Southcentral coal fields of Beluga, the Susitna Basin and Matanuska.
Recreation	Northwest Region	3-344	Section 3.10.7.1	Figure 3.10-6	Figure 3.10.6 does not include Denali State Park or Kachemak State Park (Kachemak is mentioned in the description). Chugach National Forest and Kenai National Wildlife Refuge are also both mentioned in the description but not depicted on Figure 3.10-6. Exit Glacier is part of Kenai Fjords National Park and does not require a separate listing. Other public lands of note that are missing include the Susitna Flats, Palmer Hay Flats, Goose Bay, Anchorage and Trading Bay State Game Refuges. No figures have been included of the Interior or Far North region and their respective public parks, recreation and refuge lands.
Visual Resources and Noise	Northwest Region	3-352	Visual Resources Section 3.11.2.6		No mention of the proposed Chuitna mine or the mines at Wishbone Hill and Jonesville.

Table 2 Comments on the Draft Stream Protection Rule Environmental Impact Statement Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Socioeconomic Conditions	Northwest	3-445	Section 3.14.2.6		States that there is minimal data available for employment and payroll in the region. This is not correct. http://labor.state.ak.us/; http://www.usibelli.com/McDowell-Report-Statewide-Socioeconomic-Impacts-of-UCM-2015l.pdf; http://www.usibelli.com/EEIC-report.pdf
Socioeconomic Conditions	Northwest	3-453	Section 3.14.3		*Lists six "Alaska Native Village Statistical Areas (ANVSA) within the study area for this analysis."* The six villages listed for the analysis are Atqasuk, Chickaloon, Knik, Ninilchik, Tyonek and Wainwright. Unclear if they used these six villages as a statistical sample for all the coal regions in the Alaska or if they consider these six the only Alaska Native communities to potentially be affected by the Action Alternatives. If it is the latter there are many more communities to include and consider.
Mineral Resources and Mining	Types of Coal Resources	3-50	Section 3.1.8.6		*"The Northwest region contains bituminous and lignite resources in Alaska."* This is incorrect. Alaska contains lignite, sub-bituminous, bituminous and anthracite coal resources. http://www.dggs.alaska.gov/pubs/id/2636
Geology	Northwest Coal-Producing Region	3-83	Section 3.2.6		There is more than a single operating mine in Alaska. UCM has five mines in the Healy area that are either extracting coal or actively being reclaimed.
Soils	Northwest Coal-Producing Region	3-84 to 3-85	Section 3.2.6		This section only discusses Central Alaska and Southern Alaska coal field geology and completely leaves out the Arctic Foothills Subprovince and Arctic Coastal Plain Subprovince.
Social And Economic Resources	Tax Revenue Impact Analysis	4-223	Section 4.3.1	table 4.3.1-23	States that the coal severance tax in Alaska 2012 was $40,696. According to the McDowell Group report "Statewide Socioeconomic Impacts of Usibelli Coal Mine, January 2015" prepared for UCM the Denali Borough generated approximately $100,000 from $0.05 per ton severance tax levied on coal and limestone extraction in 2013. UCM paid nearly all of this tax.

Table 2 Comments on the Draft Stream Protection Rule Environmental Impact Statement Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Social And Economic Resources	Summary of Effects	4-231	Section 4.3.1.8		*Footnote #44. "Potential increases in employment related to compliance activities may mitigate the adverse impacts associated with production-related employment changes."* In plain English this appears to translate to "More government jobs required for permitting and regulatory oversight may offset the number of jobs lost from private sector mining." In Alaska's current budget climate this is not necessarily an option to include regulatory personnel without outside sources of money.
Social And Economic Resources	Recreation	4-267	Section 4.3.3.1		*"The Northwest region has relatively little federal and state land and relatively few river miles within the study area."* This entire paragraph and it description of recreational activities and public lands used for recreation in Alaska is incorrect and incomplete. Entire section for this chapter on the Northwest region requires more complete research and information gathering by the preparers and contributors. Resources for more complete information include among others the NPS Regional Office in Anchorage and the State of Alaska Department of Natural Resources and the Department of Fish and Game.
Irreversible and Irretrievable Commitments of Resources and Adverse Environmental Effects Which Cannot Be Avoided		4-363	Section 4.6		This section is not listed in the Table of Contents on Page vi

Table 2 Comments on the Draft Stream Protection Rule Environmental Impact Statement Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Appendix G	Terrestrial Resources for Northwest Basin	G-16	Appendix G.1.6		Vegetation section does not include Interior or Arctic Alaska. http://www.adfg.alaska.gov/index.cfm?adfg=lands.main
Terrestrial Resources for Northwest Basin		G-17	Appendix G.1.7		The fauna section is inaccurate and does not contain the many of the major terrestrial wildlife found in the coal producing regions including Moose (Laces alces), Brown (Ursus arctos) and Black (Ursus americanus) bear. http://www.adfg.alaska.gov/index.cfm?adfg=animals.main
Appendix H	Wetland Type and Acreage in the U.S.	H-3	Appendix H	Table H-1	Acreage numbers for wetlands in AK should be fact checked. Appear to be undercounted.
Appendix I	Recreation in the U.S.	I-2	Appendix I	Table I-1, I-2	Dollar numbers should probably be fact checked.
Appendix I	Recreation in the U.S.	I-33, I-34	Appendix I	Table I-26, I-27, I-28, I-29	Missing several state parks, national parks, wildlife refuges. The acreages listed are also highly suspect. For example, the acreage for Denali State Park in Table I-28 is shown as 1,605.31. The actual acreage for DSP is over 200 times bigger than this. According to Alaska State Parks DSP is 325,240 acres.
Appendix J	Groundwater Usage In Coal-Producing Counties	J-20	Appendix J 2005	J-23	These numbers look somewhat incomplete. The Alaska DNR Water Section may have more complete information.
Environmental Consequences	Model Mine Approach to Understanding Coal Industry Impacts	p. 4-37	Chapter 4 Section 4.1.2		This section states the only operating mine (UCM in Healy) is representative of coal production in Alaska. This completely ignores the two mines permitted in Matanuska Valley and the one currently in the permitting process in the Beluga Coal Fields. The geography, ecology, and watersheds are all varied from each other and to ignore that does not adequately represent the Alaskan environment.

Table 2 Comments on the Draft Stream Protection Rule Environmental Impact Statement Dated July 2015

Table 3: Comments on the Draft Regulatory Impact Analysis of the Stream Protection Rule Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Purpose and Need		1-15	Need for Reg Imp		*"Section 515(b)(2) of SMCRA requires that mined land be restored to a condition capable of supporting the uses that it was capable of supporting prior to mining, or higher or better uses of which there is reasonable likelihood, provided certain conditions are met. Existing rules and permitting practices have focused primarily on the land's suitability for a single approved post-mining land use. OSMRE believes it is essential to ensure that land be restored to support all uses that it was capable of supporting before mining."* Support of all uses that mined land was capable of supporting before mining may not equate to "higher and better use."
Purpose and Need		1-18	Need for Adeq data		*"Increased frequency of inspection and improved reporting is needed to ensure effective compliance with SMCRA requirements for restoration of approximate original contours (AOC) on the site post-mining ... To address such problems, OSMRE is evaluating alternatives to ensure sufficient reporting and inspection regarding contour restoration"* Increased inspection and reporting will require increased funding and the evaluation alternatives will also require increased support in the form of equipment and training.
Introduction and Regulatory Options	Need For Adequate Objective Standards	1-19			*"...many recent publications...that evaluate the impacts...of mining...on water quality..."* States that in Chapter 4 there is a discussion of the studies that evaluate surface mining and water and biological resources. A cross check of Chapter 4 did not find any discussion or a reference to "recent publications of studies and literature surveys." Chapter 4 is about compliance costs.
2.7 Study Areas		19	Appendix E	Table 6	In 2012 there was 1 underground mine (Jonesville Mine) in Sutton, Alaska.
Overview of the Coal Mining Industry and Coal Market	Overview of Coal Mining Activity in the U.S.	2-11			*"In contrast, the Northwest Region had only one producing mine in 2012"* In 2012 in Alaska there were 7 active mines in the state with 2 mines actively producing. In 2015, there were 3 mines actively producing coal within the Nenana Coal Field.

Table 3 Comments on the Draft Regulatory Impact Analysis of the Stream Protection Rule Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Overview of the Coal Mining Industry and Coal Market	Overview of Coal Mining Activity in the U.S.	2-12			*"The Gulf Coast and the Northwest have no underground mines"* In 2012 Jonesville Mine was still an active permit.
Analysis of Potential Impacts to Model Mines	Northwest	22	Appendix B Section 3.7		This section states the NW only has one operating mine...are they lumping GRP and TB together and just considering UCM Healy as one mine?
Overview of the Coal Mining Industry and Coal Market	Coal Resources and Reserves	2-3			*"The largest estimated recoverable reserve base lies in Montana and Illinois."* Alaska's reserves do not appear to be factored in to this statement at all. Appears that they are only considering estimated recoverable reserves based on what they consider to be active, economically viable mines, which is constantly changing.
Overview of the Coal Mining Industry and Coal Market	Overview of Coal Mining Activity in the U.S.	2-9	2.3 Coal Producing Regions		As commented in the DEIS consider breaking Alaska out into it own separate region.
Analysis of Potential Impacts to Model Mines	Coal Producing Regions	4	Appendix B	Figure 1	Only shows Healy (Nenana) coal field, none of the other Alaska coal fields appear to be identified. Throughout the RIA and DEIS, Alaska resources are inconsistently identified or ignored.
Northwest	Model Mine & Excess Spoil	4.7	Appendix B		*"The model mine is designed to produce two million tons per year over 15 to 20 years at a mining ratio of 3.8:1. ...* *... Any future permits will not generate excess spoil; therefore, excess spoil fills were not included in the alternative analysis. "* In general coal thickness on average is 50 feet. In regard to excess spoil disposal, there are current and future mines in Alaska that are or will be permitted with excess spoil fills. No excess spoil disposal area is permitted as a dump site for waste from the power plant.

Table 3 Comments on the Draft Regulatory Impact Analysis of the Stream Protection Rule Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Compliance Cost Analysis		4-18+	Coal Production	Exhibit 4-14 & Exhibit 4-18 +	The exhibits do not consistently list production for Alaska; for example there is large variation between the forecast production in Exhibit 4-14 of 2.0 to the production in Exhibit 4-18 and all Exhibits forward that list production at 37.0.
Compliance Cost Analysis		4-2	Introduction and Summary of Results	Exhibit 4-2	*Northwest surface mine compliance cost is $98,000* This number seems low and does not appear to take into account normal operating cost in Alaska.
Compliance Cost Analysis		4-22	Compliance Cost Results		*"Northwest surface mines will experience cost increases ($0.06 per ton) primarily due to an increase in reforestation and PMLU and stream restoration costs"* Reforestation in the Northwest must be defined and shown proposed to be both economically and ecologically feasible.
Industry Operational Cost		4-23	Section 4.4	Exhibit 4-18	Coal Produced per mine is listed as 37 million tons. Annual production is around 2 million tons. substituting the numbers the increase operational cost per ton is significantly higher at $1.10 per ton.
		4-24		Exhibit 4-19	Production is listed at 42.0
Cost for Restoration of Stream Form and Function		43	appendix B	Table 32	This cost estimate of $235 is suspiciously low, especially since it's the lowest on the chart. It is unlikely that the cost of stream restoration, especially for salmon streams in Alaska would be the least costly in the US. The cost of raw material would also increase the cost of restoration since most is sourced from out of state suppliers. Even the Healy coal mine is not close to a major city or port of entry.
		4-6	Operational Cost Method	Exhibit 4-3	*"Regrade is not landformed"* This designation is not defined and unclear on how it relate to reclamation.
Overall Coal Production		5	appendix B	Table 1	In 2012 Alaska had 2 Coal Mines in production, Two Bull Ridge and Gold Run Pass

Table 3 Comments on the Draft Regulatory Impact Analysis of the Stream Protection Rule Dated July 2015

General Subject Area	Specific Subject Area	Page	Chapter or Section	Figure/ Table	Comment/Position
Projected Energy Market Impacts		5-22	Projected Energy Markets		*"We note that the changes in coal production summarized in Exhibits 5-8 and 5-9 and throughout this chapter do not reflect the costs of the Proposed Rule for the Alaskan coal industry. Excluding Alaska from the estimated changes in coal production presented in this chapter, however, is unlikely to significantly bias our results because Alaskan coal production represents just 0.2 percent of total U.S. coal production.136 Thus, its exclusion from the EVA modeling analysis would not affect model results"* How can it be predicted what effect AK coal production will have in 2020-2040 when it cannot be predicted if the largest coal field in AK will be in production at that time (Western Arctic-Deadfall Syncline). To exclude the economics of this possibility is unrealistic. This rule would have significant impacts to Alaska energy cost.
Coal Industry Employment by Coal Region and Mine Type		6-7	Derivation of Employment	Exhibit 6-2	The # 143 isn't even high enough to cover the employees of UCM in Alaska, much less all of the northwest surface mines
Analysis of Potential Impacts to Underground Mining Operations	Executive Summary	7	Appendix D	Figure 1	The figure is described as showing the location of coal regions and potentially mineable coal but the map only shows the Healy coal on it…none of the other coal fields are depicted
Environment and Human Health	Results of GIS Analysis of Stream Crossings at Mine Sites	7-13		Exhibit 7-5	*"Estimated number of streams crossing mine site = 5"* It as difficult to determine from the description how OSMRE came up with five. Stream crossings in the Healy mining area could include Frances Creek, Two Bull Creek, Runaway Creek, Hoseanna Creek and Marguerite Creek. Could also include Healy Creek. With the changing definition of streams in the proposed rule, there are many unnamed drainages currently counted as ephemeral that would be reclassified as intermittent with the removal of the one square mile requirement.
Compliance Cost Analysis					There does not appear to be a definition of reforestation in the document. Reforestation should be defined or the concept clarified and explained how the concept applies to each region.

Table 3 Comments on the Draft Regulatory Impact Analysis of the Stream Protection Rule Dated July 2015

THE STATE *of* ALASKA

GOVERNOR BILL WALKER

Department of Fish and Game

DIVISION OF HABITAT
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October 5, 2015

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RE: OSMRE Proposed Stream Protection Rule

Dear Mr. Kirkham:

In response to your letter of September 8, 2015, the Alaska Department of Fish and Game (ADF&G) Division of Habitat has reviewed the revisions to stream protection rules during coal mining proposed by the Office of Surface Mining, Reclamation, and Enforcement (OSMRE).

The major concern we have with the proposed use of bioassessment indices is that they are portrayed as a finite number that will be used to judge whether a mine is in compliance with the rule or not. Picking any specific number to define an aquatic system, even if multiple sample years and times are included, does not take into account the high degree of natural variability in our aquatic systems. For example, at Red Dog Mine a water quality and periphyton sample site on a stream not affected by the mine has been sampled for 18 years. During that time, average median zinc concentrations in the water have varied from 138 to 939 mg/L and the average annual chlorophyll-a concentrations have varied from 0 to 6.4 mg/m^2. The high degree of variability at this sample site is due to natural mineral seeps upstream of the sample location.

Based on ADF&G's experience, we believe that a biomonitoring approach (using water quality, periphyton, aquatic invertebrates, and fish) can accommodate such natural variability while still providing a quantitative, defendable method to monitor an aquatic system for potential effects from a mining operation

As requested, we focused on the new biologic condition language in the proposed rule. Our responses to your questions follow.

Q: How have biologic assessments been implemented in Alaska and are there any concerns or issues that DNR should be aware of?

The EPA national bioassessment protocol is Barbour et al. (1999). The methodology was modified for use in Alaska by Major and Barbour (2001). The Cook Inlet Basin and Alexander Archipelago ecoregions have had sufficient baseline and calibration work done to develop bioassessment indices; the rest of the state has not. Some baseline work has been done near Juneau, in Southwest Alaska, and in the Tanana River basin, but not enough to develop bioassessment indices for these ecoregions.
In Alaska, the Alaska Department of Environmental Conservation (ADEC) Division of Water is the state agency responsible for the water quality inventory required under section 305(b) of the Clean Water Act, including the development of bioassessment protocols. They recently revised the Alaska Water Quality Monitoring and Assessment Strategy (ADEC 2015). The ADF&G recommends you contact the ADEC for additional information on the current status of bioassessment within Alaska.

The high variability in biological parameters (water quality, periphyton, aquatic invertebrates, and fish) between and within Alaska streams, both temporally and spatially, makes development of meaningful bioassessment protocols difficult, if not futile. Many of our streams are affected by surface or bottom-fast ice at least half the year, seasonal switches between runoff and groundwater sources, high discharge scour events, and other factors capable of affecting species at all trophic levels from periphyton to predators. Because of these factors we believe that the rigidity of bioassessment protocols does not allow for professional judgement, accommodation of various stream types, and high natural background variability.

ADF&G has implemented a number of biomonitoring programs at metal mines to meet EPA and ADEC requirements. Our preferred approach is to sample periphyton, macroinvertebrates, and fish in both mine-affected and nearby unaffected stream reaches. When paired with adequate baseline sampling in reaches to be potentially mine-affected, use of such paired sampling allows acute changes to be documented and chronic trends to be tracked over time with ongoing calibration of baseline conditions. Use of ongoing background condition sampling is increasingly important with changes in climate including stream temperature regimes and annual hydrographs.

The requirement in 30 CFR 780.23(c)(2)(i) that the biological condition monitoring plan for a mine in Alaska "*use a multimetric bioassessment protocol approved by the [ADEC]*" will likely be problematic to implement. Not only are such protocols not well developed for Alaska, but requiring determination of

the "*population levels, and biomass of an appropriate array of aquatic organisms, including benthic macroinvertebrates*" would require a very extensive and expensive program.

Q: Are biological assessments implemented in Alaska applicable to intermittent and ephemeral streams?

The definitions of intermittent and ephemeral streams in the proposed rule are not appropriate in most of Alaska primarily because of the rule's treatment of flow resulting from melting snow, ice, and glaciers. Such sources are major drivers of stream flow in much of Alaska during the open-water season, and may be the primary source of water for ephemeral streams (rather than rainfall). Similarly, the proposed definitions of perennial and intermittent streams are not representative of streams in much of Alaska, particularly as the definitions relate to the roles of surface water and groundwater in maintaining flow. These definitions also do not seem to include consideration of the substantial role hyporheic flows can have in developing or maintaining the productivity of a stream. Intermittent streams in Alaska may have substantial hyporheic flow that can maintain developing salmon eggs (such as the lower mile of the Delta River) through the winter, while runoff and meltwater provide the majority of water seen flowing above the stream bed.

To implement a competent biological assessment in Alaska requires long-term knowledge of species present and timing of habitat uses (spawning, rearing, overwintering, migration) as well as short-term local knowledge of low or high water levels, bed scouring events, or high or low water temperatures. Sampling immediately after such a disturbance can lead to data that are extremely difficult to interpret.

Q: Are there concerns with the proposed identification of benthic macroinvertebrates to the genus level, and has this detailed level of information routinely been collected in Alaska?

The standard requirement for stream studies in Alaska is that benthic macroinvertebrates be identified to the "lowest practical taxonomic level." While identification to genus is practical for many benthic macroinvertebrates in Alaskan streams, identification down to family, subfamily, or tribe is all that is practical for some invertebrate families in Alaska, notably Chironomidae (midges),. This can be problematic for both the regulating and regulated parties, since some midge genera are dependent on high quality water while others are frequently found in disturbed or degraded systems.

Q: Is the proposed definition of ecological function as it relates to a stream adequate especially in relation to the use of the term biologic condition?

The ecological function of a stream is the role it plays in providing ecosystem services. As such, this is largely a qualitative assessment (for example, a transitional pool-riffle system providing short term

sediment and woody debris storage, with deep pools for fish overwintering habitat) rather than a quantitative measure or index value, and varies by stream reach and season. Addition of quantitative measures of biological condition to this qualitative assessment results in a confounded analysis that can make it difficult at best to separate correlation from causation. Our experience is that biomonitoring that results in establishment and monitoring of long-term trends is the appropriate goal for such projects. Such long-term data bases (e.g., from four to over 20 years) exist for several large hard rock mines in Alaska (Red Dog, Fort Knox, Greens Creek, Kensington). Pre-project baseline work for projects such as the Donlin Prospect has also used the biomonitoring approach for data collection.

Q: How stable are baseline index values to natural and season fluctuations in local conditions?

Based on ADF&G's experience with biomonitoring programs at surface and underground metal mines in northwest, interior, and southeast Alaska, natural fluctuations in periphyton, macroinvertebrates, and fish populations on the same date across years can be in the range of an order of magnitude. As a result, it can take ten years or more of baseline data collection to establish the range of natural variability for a stream system. This can make it difficult to attribute any observed year-to-year differences in biological condition to either natural variations or mine-related disturbances without multi-year, site-specific baseline data collection (for example, see Ott and Morris 2015).

Any questions or concerns about this response may be directed to Habitat Biologist Jim Durst at (907) 459-7254 or emailed to james.durst@alaska.gov.

Sincerely,

Alvin G. Ott, Operations Manager
Division of Habitat
Alaska Department of Fish and Game

ecc: David Rogers, ADF&G, Juneau
Mike Daigneault, ADF&G, Anchorage
Mike Bethe, ADF&G, Palmer
Ginny Litchfield, ADF&G, Kenai
Mark Minnillo, ADF&G, Craig
Wade Strickland, ADEC, Anchorage
Jack Winters, ADF&G, Fairbanks
Lee McKinley, ADF&G, Anchorage
Jackie Timothy, ADF&G, Juneau

AGO/jdd

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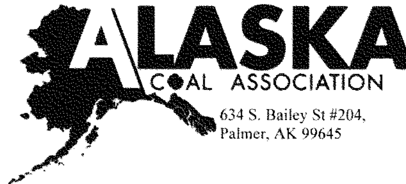


October 26, 2015

Joseph Pizarchik, Director
U.S. Department of the Interior
Office of Surface Mining Reclamation and Enforcement
U.S. Department of the Interior
1951 Constitution Ave. N.W.
Washington, D.C. 20240

Submitted electronically via www.regulations.gov

Re: Stream Protection Rule (Fed Reg Vol 80, No. 143) Docket OSM-2010-0018
Regulatory Impact Analysis (80 Fed Reg 44,700) Docket OSM-2015-0002
Draft EIS (80 Fed Reg 42,535) Docket OSM-2010-0021
Request for Comments Dated July 16, 2015
Due (with Extension) October 26, 2015

Mr. Pizarchik:

The Alaska Coal Association (ACA) appreciates the opportunity to provide comment on OSM's proposed Stream Protection Rule and associated documents. ACA represents the interest of coal companies and related coal mining activities in Alaska that are regulated under the proposed rules. We offer the following comments on the proposed rule.

Background

Alaska is a unique state rich in beauty, natural resources and has a small population. At Statehood, Alaska's constitution established that Alaska develop its resources to the maximum benefit of the people. This is a significant acknowledgment that we need to generate our own wealth so we don't become a burden on the federal government, due to our unique size and location.

In addition to our resources, Alaska has a very high amount of streams, rivers and wetlands – a geology and geomorphology that is diverse and unlike most of the Lower 48 states. The map below shows Alaska's streams, rivers and waterbodies.

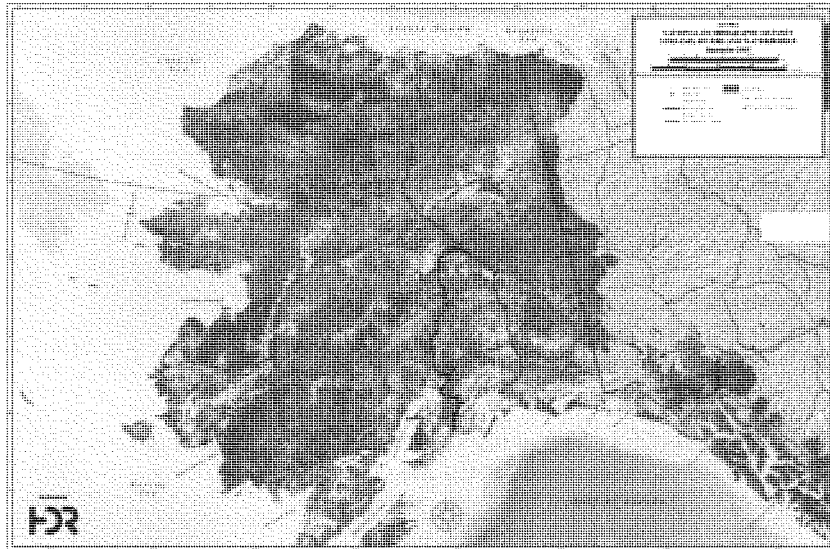


Figure 1 Waterbodies in Alaska (from HDR)

It is clear to see that the areas impacted by the proposed SPR in Alaska are extensive. Even prior to the proposed Water of the US rule that EPA and USACE proposed, it has been estimated that 50% of Alaska is considered wetlands or jurisdictional waters.

Alaska is blessed with an abundance of coal resources. In fact, USGS estimates that 50% of the US coal reserves are contained in Alaska. The colored areas on the map below illustrate coal deposits in Alaska (from Alaska DGGS). However, very little of this has yet to be developed, mostly due to low in-state demand (our low local population). Coal development to support naval vessels was conducted in southcentral Alaska in the early 1900's. Coal development in the Healy area began in the early 1920's as the railroad was built between Anchorage and Fairbanks. Today coal fuels heat and electrical generation in Interior Alaska. .

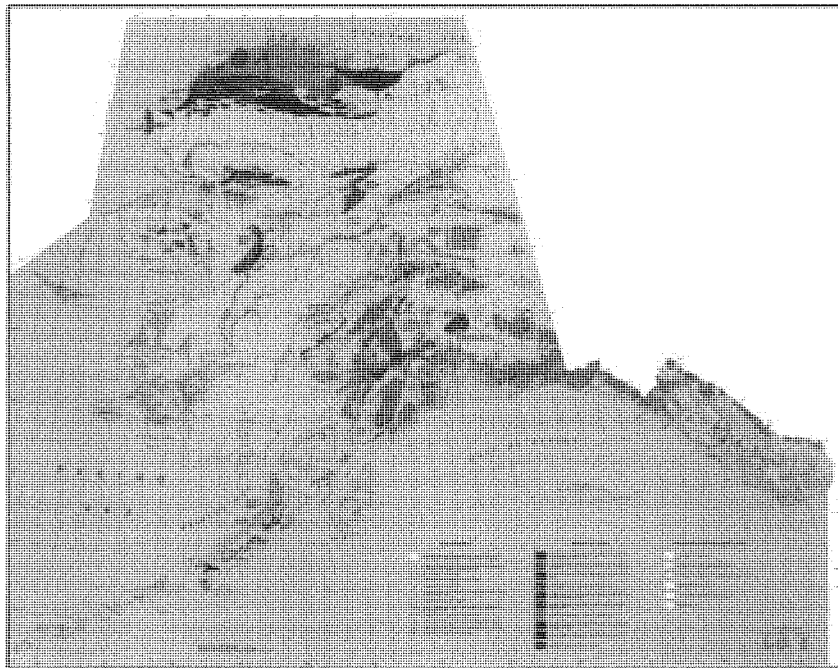


Figure 2 Alaska Coal Resources (from Alaska DGGS)

Alaska must protect our ability to meet future demand. Demand for Alaska's coal could increase in the world coal market as well as in state. Global seaborne thermal coal trading increased three-fold in the past decade, from just under 300 million tons per year to over 900 million tons per year. This demand is the result of new power plant facilities that will remain in operation for several decades. Alaska is located in an ideal position to supply this market with our ultra-low sulfur coal, allowing these new facilities to reduce world emissions by blending in Alaska coal. As technological advances are made in small scale coal utilization, the ACA remains optimistic that rural Alaska could take advantage of nearby coal resources. Most of rural Alaska is faced with high fuel oil costs and electric rates that are five times the national average. Some of these villages could develop local economies by using nearby coal to heat their villages and provide electricity to the community at a significantly lower cost.

With these points in mind, we have the following comments on the proposed rule.

Rescind the Proposed Rule

We are aware that numerous entities have submitted a substantial number of comments on the proposed rule (detailed items). We choose not to re-iterate their comments herein, but rather request that the rule be rescinded outright. A few of the key reasons are as follows:

1. *Overtly Broad Scope of Changes* – in 2009, when the changes to the rule first came about, there were some work sessions with industry and regulatory authorities discussing the need to make adjustments to the stream buffer zone rules. The result was a proposed rule (OSM-2009-0009) for which the Alaska Coal Association and other provided comments on at the end of 2009 (nearly 6 years ago). After years of silence and no dialogue with these same parties, we are presented with several hundred pages containing 475 regulation changes that go well beyond the stream protections that the stream buffer zone rule set out to address. The regulations strayed into changes in bonding, re-defining material damage, expanding stream rules to ephemeral streams, and in general go counter to the intent of the 1977 rule of finding a balance between environmental protection and coal production and instead will needlessly eliminate production.
2. *Insufficient Public Notice Period* – allowing just 91 days to review over 3000 pages of documents that took over six years to produce, and shutting down the dialogue leading up to the proposed rule change, is a dis-service and a disrespect to the public, the affected regulatory authorities and the regulated industry. In addition, six public hearings were held, but only one was held west of the Mississippi River (Denver). (St. Louis would be marginally west of the Mississippi at best). I think this shows two things – the regulations are largely driven by issues in Appalachia and not the West, and while the West produces a significant amount of our US production, very little effort is being made to hear from these larger operations.
3. *The DSEIS and RIA and incomplete* – This is true specifically as they relate to Alaska. In light of the background information presented above, Alaska was only analyzed with two potential areas for coal development (Healy and the Matanuska Coal Field). This does *not* even include the Beluga Coal Field, which has an ongoing SEIS and permit applications on file to which OSM has tendered technical assistance in reviewing. Any potential impacts of this proposed rule as it relates to Alaska are significantly under-reported.
4. *Effectively Removes local Regulatory Authorities granted in the 1977 Act* – Section 101 of the original Act acknowledges diversity in regions across the US and instituted a policy of granting states the local authority to "**developing**, authorizing, issuing and enforcing regulations". Section 503 goes on to state that "each state may assume and retain exclusive jurisdiction over the regulation of surface coal mining and reclamation activities in the state…". With the details of the current proposed rule defining material

damage, biological indicators, et al in a one-size-fits-all nationwide sweep is neither practicable nor in keeping with the intent of the original Act.

Based on the above over-arching deficiencies, we herein ask that the rule be rescinded in its entirety.

Provide Alaska Exemption

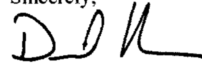
Short of a full rule retraction, we would, based on the information presented above, request that Alaska and its regulatory program be provided an exemption from these rule changes, recognizing its unique setting, abundant resources and the need, as provided for in the 1977 Act, for primary authority for developing regulations should rest with the states.

Additional Comments

In addition to the comments outlined in this letter, ACA endorses the comments submitted by the State of Alaska Department of Natural Resources (with a cover letter signed by the Governor of Alaska) and the National Mining Association. The detailed technical analysis in these comments depict many of our detailed concerns with the SPR as proposed.

We thank you for your consideration of these comments.

Sincerely,



Daniel Graham, PE
President, Alaska Coal Association

Cc: Honorable Senator Lisa Murkowski (AK)
Honorable Senator Daniel Sullivan (AK)
Honorable Representative Don Young (AK)
Honorable Governor Bill Walker (AK)
Russell Kirkham, Coal Program Manager, Alaska DNR

ALASKA MINERS
ASSOCIATION

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October 26, 2015

Mr. Joseph Pizarchik, Director
Office of Surface Mining Reclamation and Enforcement
1951 Constitution Ave NW
Washington, DC 20240

Dear Mr. Pizarchik:

The Alaska Miners Association (AMA) writes today to submit comments on the proposed Stream Protection Rule (SPR).

AMA is a non-profit membership organization established in 1939 to represent the mining industry in Alaska. We are composed of more than 1,800 members that come from seven statewide branches: Anchorage, Denali, Fairbanks, Juneau, Kenai, Ketchikan/Prince of Wales, and Nome. Our members include individual prospectors, geologists, engineers, vendors, suction dredge miners, small family mines, junior mining companies, and major mining companies. We look for and produce gold, silver, platinum, molybdenum, lead, zinc, copper, coal, limestone, sand and gravel, crushed stone, armor rock, and other materials.

First, AMA is discouraged and disappointed by the inadequacy of the public comment period allowed for this proposed rule. The over 3,000 pages of Environmental Impact Statement, Economic Analysis, Regulatory Impact Analysis, and appendices are a product of a six-year undertaking by the Office of Surface Mining (OSM). Now, stakeholders including the individual States, industry, and the general public have been given only 91 days to review and evaluate major changes to coal mining regulations in the United States. It is impossible for stakeholders to be sure they have reviewed and understand every implication imposed by the proposed rule. Such a brief comment period is not only unfair; it will undoubtedly prevent the agency from obtaining the thorough, technical feedback needed to ensure the rule is legitimate and in accordance with the Legislative intent behind the Surface Mining Control and Reclamation Act (SMCRA).

Despite an impossibly short period to do so, AMA has reviewed the proposed rule to the best of its ability and has identified the following issues of grave concern to Alaskans:

The Proposed SPR Violates SMCRA; Relinquishes State of Alaska Primacy

When passed in 1977, SMCRA included language that intended for the individual States in the union to have primacy over their own coal regulatory programs. The State of Alaska has administered the Alaska Surface Coal Mining Control and Reclamation Act (ASCMCRA) since 1983 and has a successful record of stringent oversight of coal mining activity in the state. However, when crafting the SPR, OSM did not consider ASCMCRA, nor did it consult with the State of Alaska at all. In fact, the proposed rule removes the regional discretion grated by SMCRA and overthrows the State's program, relinquishing the authority provided for under SMCRA. Amazingly, it goes even one step further, allowing the United States Fish and

Wildlife Service to have veto authority over State permits on coal mining projects. The rule, plain and simple, is flagrant federal overreach and violates the State of Alaska's rights.

Applicability of the SPR to Alaska

In the SPR, OSM seems to clearly target coal mining activities in the Appalachian region; then, expanded it to every coal region in the United States. Mining methods performed in the eastern U.S. are without question much different than methods performed in Alaska, yet, the requirements in the SPR have been developed with a one-size-fits-all approach as if all mining operations are the same. Not only is this unfair to coal developers nationwide, but it also cheats environmental protection – coal mining regulations should always be developed and overseen by requirements that are specific to the site and operation.

Alaska, despite having immense coal reserves, does not appear to be considered in the Proposed Rule documentation. No scientific studies relevant to Alaska are referenced, and no public meetings were held in Alaska. The Alaska-specific details that would result from study and a request for comments would have demonstrated the uniqueness of Alaska and the inappropriateness of the proposed regulations.

Our state extends from approximately 55 degrees to 75 degrees N Latitude, experiencing moderate to severe arctic winter conditions and seasonal variations not common to the contiguous United States. The SPR, with overly detailed and restrictive requirements, does not provide the flexibility needed to meet cold climate operational challenges. A workable regulatory document needs to either address every conceivable condition, which is impossible, or provide general guidelines that are achievable and adjusted throughout the area of influence. The document would better serve its purpose if clear guidelines and results were identified, leaving the methods of compliance to the operator and State permitting agency.

Because the document fails to capture Alaska specific conditions, we will outline some of the technical difficulties that will result in the State from the proposed SPR:

- Slope Stability: Freeze/thaw cycles and extended winter conditions with deeper penetration of the active mining zone, sometimes combined with hydraulic pressure build-up, should be addressed.

- Compaction: Normal methods of testing and achieving soils compaction during winter and transition months will not always work. Adjustment of these methods is needed to accommodate year round operations.

- Permafrost Soils: Permanently frozen soils may require special treatment for stockpiling and reuse depending on engineering properties and moisture content. Normally this is addressed on an individual basis due to the many variations in soil types, etc. that occur.

- Seasonal Frost: The depth, temperatures and extent of seasonal frost penetration varies greatly depending on solar exposure, groundwater conditions, geographic location such as interior or coastal influences, local streams or drainage and many other factors. Concerns to be addressed may include stability of structures, road or haulage ways and excavation techniques to name a few. Individual engineering treatment is normally required to address these localized conditions.

- Aufeis Occurrences: In colder climates, winter aufeis may occur in or adjacent to streams creating a damming effect and possible interruption of adjacent excavation or road building activities and spring runoff. When encountered these require special engineering and construction attention using arctic techniques.

- Frost Riving: Frost riving problems exist in many south 48 states in addition to Alaska. The only difference may be in the longer winters providing conditions for greater penetration of the bedrock and more severe temperature extremes.

- Spring thaw: After the long winter, spring arrives and thaw begins, affecting road load restrictions, runoff issues and related problems. Weather events and a relatively sudden warming trend of spring affects the strength of near surface soil, requiring special engineering attention during this time.

These and many other factors can affect roadway, culvert, drainage, restoration, slope stability and other engineering aspects. We are fairly certain these concerns and others on over-regulation are not just applicable to Alaska but are sbared in many of the other states as well. We should recognize that each area has its own particular conditions that require individual treatment. One-size-fits all doesn't always work where weather, rock and soil types, and terrain varies.

Permit Nullification

Our read of the SPR reveals the alarming ability of OSM to, at any time, invalidate an active mining permit if the agency finds it to be inadequate. Meaning, if at any time a coal operation's permit, which has been subjected to a lengthy National Environmental Policy Act (NEPA) process and evaluated by multiple state and federal agencies, is reviewed and for even a minor reason (through no fault of the operator) is found to be insufficient, OSM can reassert its jurisdiction and invalidate the permit. Even more disturbing is that this can be done in a retroactive manner, penalizing the operation for the time in which it operated as if it never completed the permitting process and received approval. There is **nothing** fair about this proposed action – it adds risk to project developers with no added benefit to the environment, and ignores the current permitting process in which permits are thoroughly examined before issued, then reviewed and renewed on a periodic basis, all the while requiring regulators to frequently perform site inspections.

Reassertion of Jurisdiction After Reclamation

The SPR proposes for OSM to assume jurisdiction over a property after the site is reclaimed and the final bond has been released, for any number of reasons. Again, the permitting process has been thoroughly conducted by the State, a process that includes exploration all the way to reclamation, and for OSM to enter in after the reclamation has been performed and approved upon is not only inappropriate, but exposes the company to infinite liability – adding risk and uncertainty to any project.

Unworkable Changes to Bonding Requirements

Alaska's Coal Regulatory Program, ASCMCRA, to repeat is authorized by and provided for in SMCRA, allows for several different bonding mechanisms to be used for Alaska's coal mines. These types of bonding has resulted in 100% success in that the State of Alaska can be sure it has the appropriate and

sufficient financial assurances in place. However, the SPR proposes changes, with no problem needing correction, to bonding requirements, eliminating mechanisms Alaska's coal projects use. Mechanisms like self-bonding, in which a company can use its assets to provide financial assurance, have been forbidden although the State of Alaska has a regular audit system in place and no problems have resulted from this agreement. By removing the ability to self-bond, OSM is adding additional cost to operations by requiring alternative instruments such as surety bonds. Creating uncertainty over whether a coal project can maintain permit coverage, when the permit coverage structure is entirely successful, is incomprehensible.

New Definitions in the Proposed SPR

In the thousands of pages of the proposed SPR, many new terms are present, and many new definitions of existing terms are described. AMA is certain we did not catch them all and fully understand their implications, but the most disturbing definition we did review was a new definition of "material damage," previously defined by individual states as being most appropriate for their region. The SPR proposes a new, nationwide definition, done by hard numeric criteria. A broad definition applied to the eastern Appalachian region, through the Midwest, and up to Interior Alaska is nonsensical. Furthermore, AMA believes the application of hard numeric data for the definition is a violation of the Clean Water Act. Requiring the State of Alaska to administer and for companies to comply with regulations with said definition, when it conflicts with statute, is not possible.

Economic Impact

Aside from the technical aspects of the SPR, AMA has reviewed economic analyses from nationwide firms who have studied the negative economic impact that will come with the rule. An analysis prepared for National Mining Association from Ramboll Environ shows disturbing figures, such as

- Total number of jobs at risk of loss, including mining and linked sector employment, is between 112,757 and 280,809 (30 percent to 75 percent of current employment levels).
- Direct mining jobs at risk of loss are predicted to range from 40,038 to 77,520, with both surface and underground mining adversely affected.
- The overall decrease in recovery of demonstrated coal reserves is between 27 percent and 64 percent; both surface and underground mines will be significantly impacted.
- The annual value of coal lost to production restriction is between $14 billion and $29 billion.
- Total annual federal and state tax revenue potentially foregone because of lost production is estimated at $3.1 billion to $6.4 billion.

In Alaska specifically, the rule stands to impact Alaska's only operating coal mine, which has successfully operated since 1943 next to one of the Nation's most visited national parks. It provides 115 full-time, family-wage jobs; revenues to the local community, State, and nation; impressive revenues to Alaskan supply businesses; and revenues to the Alaska Railroad Corporation. Furthermore, coal mined at the operation supplies six in-state power plants that supply Interior Alaska with energy that has been studied and proven to save Alaska residents at least $200 million per year, collectively, on energy costs. In

addition, two major coal projects are on the horizon which would bring hundreds of more jobs and revenues to the state and continue to contribute to Alaska's energy supply. Attached as an Appendix to these comments is a document outlining Alaska's coal history, resources, and future potential.

Why, we ask, would OSM institute new regulations that do not correct any existing problems, knowing the devastating economic and socioeconomic impact they are sure to have?

Justification for Rule Change

When releasing the SPR, OSM claimed the proposed rule is justified by new science. We ask that the agency distribute that science and cite specific examples that coordinate the newly proposed regulations with the science. On a similar note, when the agency began the new rule, it stated that the change was motivated by the change in Administration in January 2009, insinuating the change is political and not scientific. We request clarification on the justification for the proposed SPR.

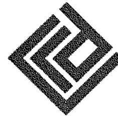
In conclusion, the SPR proposes a solution to a problem that does not exist. It will regulate good companies out of business and cause thousands of Americans to lose their jobs. AMA urges OSM to discard the proposed SPR and continue with the intent of SMCRA, to allow individual states to administer their own, regional-specific oversight of coal mining activity. Furthermore, if OSM continues with this ill-advised proposed SPR, AMA requests that Alaska be exempt.

To supplement the concerns outlined in this letter, AMA wishes to endorse the comments submitted by the Interstate Mining Compact Commission and the National Mining Association. The detailed technical analysis in these comments perfectly depict our concerns with the SPR.

Thank you for the opportunity to comment on this important issue.

Sincerely,

Deantha Crockett
Executive Committee



RESOURCE DEVELOPMENT COUNCIL

Growing Alaska Through Responsible Resource Development

October 26, 2015

Joseph G. Pizarchik, Director
Office of Surface Mining Reclamation and Enforcement
Administrative Record, Room 252 SIB
1951 Constitution Avenue NW.
Washington, DC 20240

Via regulations.gov

Re: Stream Protection Rule, Docket ID: OSM-2010-0018

Dear Mr. Pizarchik:

The Resource Development Council for Alaska, Inc. (RDC) is writing to comment on the Office of Surface Mining Reclamation and Enforcement (OSMRE) proposed Stream Protection Rule (SPR), Docket ID: OSM-2010-0018.

RDC is an Alaskan business association comprised of individuals and companies from Alaska's oil and gas, mining, forest products, tourism and fisheries industries. RDC's membership includes Alaska Native Corporations, local communities, organized labor, and industry support firms. RDC's purpose is to encourage a strong, diversified private sector in Alaska and expand the state's economic base through the responsible development of our natural resources.

RDC urges OSMRE to abandon this rulemaking. We believe the rule is not attainable, especially in Alaska, and is an unacceptable effort that would further hinder natural resource development in our state. If the process is not abandoned, at the least we encourage OSMRE to start over, and allow participation in the process by stakeholders, including states. We also press to have ample public and stakeholder review time.

Inadequate Public Comment Period

The agency has proposed a 91-day comment period for a rule that took six years to develop. This comment period is completely inadequate for the 3,000-page proposed SPR, Draft Environmental Impact Statement (DEIS), and Regulatory Impact Analysis (RIA). As a result, RDC is unable to provide a section-by-section analysis with suggested revisions and justifications. Instead, RDC will provide only broad comments.

The proposed SPR, DEIS, and RIA bave far too many deficiencies to be revised, and therefore, the rule should be abandoned.

Founded 1975

Executive Director
Marleanna Hall

2015-2016
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Overreach of Proposed Rule

In the case of mining in Alaska, there are more than 60 major permits and many more from local, state, and federal agencies that must be successfully obtained. Since 1983, coal mining has even more extensive regulations under Alaska Surface Coal Mining Control and Reclamation Act (ASCMCRA), which has jurisdiction over all coal mining activities occurring within the state. It is inappropriate for OSMRE to insert itself into the state permitting process.

Moreover, such a significant rule should allow for the opportunity to receive and incorporate the valuable insight and experience of the primacy states and the best practices that they have developed and incorporated into their programs over the years. Better yet, many of the specifics in the rule (i.e. defining material damage via a single set of numeric criteria) should be left undefined and delegated to the individual local regulatory authority to define for their region.

In Alaska, as well as other coal-producing states, regulatory protections and inter-agency coordination are already in place, such as the Clean Water Act. RDC is concerned the proposed rule ignores these regulations and the permitting process. A particular example of federal overreach is the new rule grants the U.S. Fish & Wildlife Service essentially a veto authority over an approved state permit program.
OSMRE has not demonstrated that the SPR will in fact reflect the best available science or address any compelling need to improve environmental protection from mining operations conducted in compliance with the current rule. It is a rule in search of a problem.

Regulatory and Permitting Certainty

It is a policy of RDC to advocate for predictable, timely, and efficient state and federal permitting processes based on sound science and economic feasibility. The proposed SPR will not provide regulatory certainty to industry. In fact, the DEIS appears to contradict the SPR. The DEIS seems to assume that only proposed mines that will result in permanent adverse impacts will not be permitted. The SPR appears to preclude the permitting of mines even where there are temporary impacts. Such discrepancies result in the agency potentially underestimating impacts in the DEIS that do not reflect the actual text of the SPR.

Another example of permitting uncertainty that is of concern to RDC and it membership is the permit nullification provisions that have been added to the regulations. A company and project that has gone through a permit application, review and issuance process should be able to operate under permit coverage with clear certainty. Adding the ability to retroactively nullify a permit post-process and mid-operation is absolutely unacceptable, if not unconstitutional.

The State of Alaska depends on the responsible development of natural resources on its lands to diversify and support its economy (Article VIII of the Alaska Constitution). It is not in the public interest, nor is it in the interest of Alaskans, for OSMRE to overstep its jurisdictional authority in local processes.

Comprehensive National Rule in Search of a Problem

The proposed rule is primarily focused on surface coal mining operations in Appalachia. Particularly, OSMRE's proposed revisions of the definitions of "material damage to the hydrologic balance outside the permit area" and "approximate original contour" are inappropriate and blatant attempts at nationwide implementation of standards that are unique to different regions. The one-size-fits-all approach to material damage is inappropriate.

This rule does not present itself as an effort to protect streams, but instead a rule to regulate the coal industry out of business across the nation.

OSMRE itself has indicated the purpose of this process,

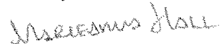
> "On June 11, 2009, the Department of the Interior, the U.S. Environmental Protection Agency, and the U.S. Army Corps of Engineers entered into a Memorandum of Understanding (MOU) implementing an interagency action plan to reduce the harmful environmental consequences of surface coal mining operations in six states in central and northern Appalachia.
>
> Unregulated coal mining in Appalachia and elsewhere in the nation's coal fields has bad devastating impacts on the environment, land use, and society as a whole. While SMCRA has made significant strides in regulating contemporary mining, an increasing number of studies have substantiated that adverse environmental impacts may continue in certain situations long after the completion of reclamation."

Similar issues found in Appalachia do not exist Alaska, and this rule essentially ignores existing practices. In light of these statements, RDC fears this is a rule in search of a problem, and it is unnecessary and counterproductive.

Conclusion

RDC urges OSMRE to abandon this flawed rule. A one-size-fits-all approach does not work for Alaska, and only further chills the investment climate. Thank you for the opportunity to comment.

Sincerely,



Marleanna Hall
Executive Director

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United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510-6175

September 27, 2016

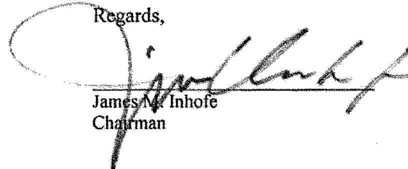
Director Joseph Pizarchik
U.S. Department of the Interior
Office of Surface Mining Reclamation and Enforcement
1951 Constitution Avenue NW
Washington, D.C. 20240

Dear Director Pizarchik,

On the behalf of the United States Senate Committee on Environment and Public Works, I am notifying you that the record of the February 3, 2016 hearing entitled, "The Stream Protection Rule: Impacts on the Environment and Implications for Endangered Species Act and Clean Water Act Implementation" will be closing without your responses. These responses were due March 8, 2016 and after numerous attempts, we have still not received your submissions. It is rare that the Committee must publish a hearing file that was left incomplete especially by a federal witness, but you have left us no other choice.

The official record of the February 3, 2016 hearing will be closing this Friday September 30, 2016. The record will reflect your agency's lack of participation and refusal to answer the Committee's questions. If you have any further questions regarding this record, please contact Elizabeth Olsen the Majority Director of Operations at (202) 224-6176.

Regards,

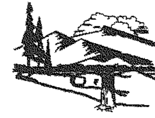


James M. Inhofe
Chairman

PRINTED ON RECYCLED PAPER

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead, Governor   Todd Parfitt, Director

December 3, 2015

The Honorable Janice M. Schneider
Assistant Secretary for Land and Minerals Management
U.S. Department of the Interior
1849 C Street, N.W.
Washington, DC 20240

RE: Proposed Stream Protection Rule, Draft Environmental Impact Statement, and Regulatory Impact Analysis

Dear Assistant Secretary Schneider:

Thank you for taking the time to discuss the Wyoming Department of Environmental Quality (DEQ) comments on the proposed Stream Protection Rule, Draft Environmental Impact Statement, and the Regulatory Impact Analysis. Your invitation to, and participation in, the video conference call on Friday November 20, 2015 hopefully provided insight and clarification to the concerns Wyoming has expressed regarding the aforementioned documents. We look forward to continuing that dialogue, as agreed upon, within the next few weeks.

As much as I appreciate the opportunity for the current dialogue, I want to be clear, as I stated in our conference call, it does not resolve or absolve the Office of Surface Mining and Reclamation Enforcement's (OSMRE) failure to honor the Stream Protection Rule cooperating agency Memorandum of Agreement or Secretary of Interior Ken Salazar April 15, 2011 commitment to the Western Governor's that "All cooperating agencies will have an additional opportunity to review and comment on a Preliminary Draft EIS before it is published for public review and comment". The failure of OSMRE to engage Wyoming DEQ since January 2011 has resulted in Wyoming having the significant concerns raised about the proposed rule. DEQ continues to believe that the information and assumptions upon which the proposed rule is based are seriously flawed and OSMRE should consider withdrawing the current proposal, re-engaging the states to re-write the rule, and go out for new public review.

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As I stated in the meeting, Wyoming DEQ remains committed to engage in a meaningful cooperating agency process. In this manner we could work together to develop a rule that is practicable, reasonable and could work in Wyoming. I look forward to our next video conference to complete our discussion regarding the comments and concerns that Wyoming has with the proposed and draft Stream Protection documents. My assistant, Connie Osborne will be in touch with your staff to schedule the next video conference.

Sincerely,

Alan Edwards for

Todd Parfitt
Director

Cc: Alan Edwards
Kyle Wendtland
Dave Ross
Andrew Kuhlmann

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

Todd Parfitt, Director

January 19, 2016

The Honorable Janice M. Schneider
Assistant Secretary for Land and Minerals Management
U.S. Department of the Interior
1849 C Street, N.W.
Washington, DC 20240

RE: Proposed Stream Protection Rule, Draft Environmental Impact Statement, and Regulatory Impact Analysis

Dear Assistant Secretary Schneider:

Thank you again taking the time to discuss the Wyoming Department of Environmental Quality's (DEQ) comments on the proposed Stream Protection Rule, Draft Environmental Impact Statement, and the Regulatory Impact Analysis. DEQ hopes that our discussions provided further insight and clarification of the concerns Wyoming has expressed regarding the proposed documents.

The opportunity to discuss the proposed rule and related documents is greatly appreciated, but I find it necessary to once again reiterate that these conversations do not resolve or absolve the Office of Surface Mining and Reclamation Enforcement's (OSMRE) failure to honor our cooperating agency Memorandum of Agreement. Furthermore, it does not resolve the failure by OSMRE to honor the commitment to the Western Governors Association by then-Secretary of the Interior Ken Salazar, by letter dated April 15, 2011, that "All cooperating agencies will have an additional opportunity to review and comment on a Preliminary Draft EIS before it is published for public review and comment." Had OSMRE fulfilled these commitments, it would have benefitted from the considerable regulatory expertise that Wyoming and other Western states have developed over the past 43 years. DEQ maintains its position that the information and assumptions supporting the proposed rule are seriously flawed and that OSMRE should withdraw the current proposal, reengage the states to rewrite the rule, and ensure additional, robust public participation and review of all of the information that OSMRE has compiled in support of this multi-year effort. Be assured that Wyoming DEQ is willing to commit – as it has been throughout this process – the resources and staff necessary to engage in a meaningful cooperating agency process.

Setting aside the procedural deficiencies in OSMRE's process to date, Wyoming's underlying substantive concern about the proposed rule is that OSMRE fails to recognize the critical distinction between Western and Eastern issues and conditions. There are significant differences in terrain, moisture and mining activities in the West compared to Appalachia; differences which often require distinct regulatory approaches. Taking these differences into account would result in regulation that is more practical to administer and comply with while also ensuring that the regulation will result in protection of the environment. DEQ's comments identify some of the instances where the proposed documents need to reflect regional distinctions to avoid arbitrary and capricious regulatory action by OSMRE.

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You have stated that you are reaching out to all coal programs that provided comments on the proposed rule and related documents. DEQ requests that you include the Interstate Mining Compact Commission (IMCC) in this outreach effort. Currently IMCC represents 23 member states and 2 associate member states, with the governor of each member state serving as that state's delegate to the IMCC. IMCC's comments on the proposed documents were the product of extensive collaboration by those members, and Wyoming and other states adopted and incorporated by reference all of IMCC's comments in the states' own individual comment submissions. IMCC is therefore uniquely positioned to bring its member states together to coordinate the states' assistance to OSMRE in developing meaningful and practicable amendments to the proposed Stream Protection Rule. IMCC's involvement would facilitate a more efficient and effective dialogue with the states.

As we mentioned, it was surprising to see bonding provisions included in the proposed Stream Protection Rule with no prior consultation with the states, or even an indication that bonding was to be addressed in the proposed rule. Changes to regulatory bonding provisions should not be made without direct involvement and engagement with the delegated regulatory authorities, including DEQ. During our meeting, DEQ was informed that Interior may be looking at the bonding rules, but to date has not initiated any process to change the rules beyond the changes already in the proposed Stream Protection Rule.

We fully expect the delegated states to be actively engaged in any process to change the bonding program. IMCC continues take a leadership role with the states in this area. A working group of member states has been established to examine all bonding, including the challenges both to the minerals industry and the financial sector. Wyoming will take a very active role in what we hope and expect to be a truly meaningful cooperating agency process. On this same topic, I would ask that OSMRE engage in a cooperating agency process for all proposed rulemaking activity, such as the blasting rules and the coal combustion residue rules currently being developed by OSMRE.

Another important concern that we raised in our comments is related to the technical and related materials cited in the proposed rule, draft EIS, and draft RIA. The sheer number and size of the referenced documents did not allow time to access and review those critical documents during the public comment period. Since our conference call, DEQ staff has reviewed the accessibility of the cited materials, and remain concerned that members of the public and the delegated states cannot adequately access the information. Some of the scientific papers are not available without subscribing to the scientific journals that they were published in, or without securing an inter-library loan. Several documents are cited with URL links that no longer exist. And most citations were not hyperlinked, as was implied during our conference call. Also, some of the citations in the regulatory documents were to newspaper articles or information provided by NGO's that have not been peer reviewed.

These deficiencies call into question the adequacy of the public participation process and compliance with OSMRE's obligations under the Administrative Procedure Act, and certainly underscore our continuing concerns with the lack of meaningful engagement as cooperating agencies.

We also noted during our review that there are very few references to Wyoming, much less the West, and the majority of the citations were to either mid-continent or Appalachian concerns. We would fully expect a rule of this magnitude to have been developed with appropriate, region-specific scientific and technical information, which appears to be lacking. This raises significant compliance concerns with the Administrative Procedure Act and OSMRE's substantive regulatory program authorities. I would request that OSMRE identify any other reports or scientific information used for the development of these proposed documents that were not cited as references.

Given these multiple concerns with OSMRE's supporting materials, I also respectfully request that an electronic file containing all of the references in the proposed rule, the draft EIS, and the draft RIA be provided to Wyoming. This information should have been provided to Wyoming as a cooperating agency under NEPA, as a delegated program under SMCRA, as a state sovereign, and as an interested participant in the rulemaking process. As we are sure this information has been assembled to support OSMRE's rulemaking

effort, we would assume providing it to Wyoming and the other states would not be a burden on the agency. Wyoming will commit to reviewing the material expeditiously and will provide OSMRE with additional comments regarding those materials as soon as practicable. Upon receipt of the referenced material and the opportunity for a cursory review by DEQ, we will let you know how much time will be needed to conduct an adequate full review of all materials. We would expect to complete that initial cursory review within 30 days of receipt. We would expect OSMRE to delay publication of the final rule until this important material has been provided, reviewed and additional comments fully considered and addressed by OSMRE. I also encourage OSMRE to allow the public another opportunity to review this information prior to finalizing the rule. The additional time is especially important because we may have questions on the scientific data or may find additional areas for which additional scientific research needs to be performed.

Again, I would like to thank you for taking the time to speak with us about Wyoming's concerns. I hope we can move from here and engage in a meaningful process that will result in a better and more informed regulation.

The DEQ has been, and continues to be, willing to work with OSMRE to address the regulatory challenges that we mutually face.

Sincerely,

Todd Parfitt
Director

cc: Governor Matt Mead
Senator Mike Enzi
Senator John Barrasso
Congressman Cynthia Lummis
Joe Pizarchik
Greg Conrad

National Endangered Species Act Reform Coalition

Statement for the Record
Senate Committee on Environment and Public Works Oversight Hearing

"The Stream Protection Rule: Impacts on the Environment and Implications for Endangered Species Act and Clean Water Act Implementation"

Hearing Date: February 3, 2016

The National Endangered Species Act Reform Coalition (NESARC) commends the Senate Committee on Environment and Public Works for holding an oversight hearing to examine the implications of the Office of Surface Mining's (OSM) proposed Stream Protection Rule (SPR) on implementation of the Endangered Species Act (ESA). NESARC submits this statement to express its concerns with several provisions of the SPR that are inconsistent with existing ESA requirements and that would impermissibly expand the authority of the U.S. Fish and Wildlife Service (FWS) over threatened and endangered species beyond the boundaries that Congress intended.

The Proposed Rule Impermissibly Grants Veto Authority to FWS

As part of the permit application process, the proposed SPR would require that the "regulatory authority" (which is the state mining authority or, in non-delegated states, OSM) undertake a review process for effects on threatened and endangered fish and wildlife resources. This review process is fundamentally flawed and would go so far as to effectively grant FWS on mine permitting decisions.

The proposed SPR would require the regulatory authority to provide FWS with certain information on threatened and endangered fish and wildlife resources for the proposed permit and adjacent areas, and the applicant's protection and enhancement plan. This submittal, by the regulatory authority to FWS, would then trigger a review and comment process that must be completed by a concurrence from FWS as to the protections afforded for fish and wildlife resources. Notably, the proposed regulations prevent the regulatory authority from approving the permit application until FWS provides "written documentation" of the resolution of all issues. While the proposed SPR would include a dispute resolution process, conditioning permit approval on FWS' written documentation essentially provides FWS with veto authority over state mining permits. The scope of this proposed veto authority has no parallel in the ESA, and is not explicitly authorized under the Surface Mining Control and Reclamation Act (SMCRA).

In its enactment of the ESA, Congress clearly delineated the scope of federal authority to impose conditions on permitting or other activities for the purpose of conserving threatened or endangered species. For example, pursuant to consultation under Section 7 of the ESA, FWS has specific review requirements as to whether project will jeopardize the continued existence of a listed species or adversely modify designated critical habitat. If FWS finds that jeopardy or adverse modification may occur, it is statutorily directed to offer reasonable and prudent alternatives to a proposed federal action. This process is not the carte blanche FWS review that the SPR now proposes. The ESA also provides explicit deadlines for the completion of consultation and the issuance of a biological opinion. Finally, the ESA consultation process has well-defined procedures and delineated roles for FWS, the federal action agency, and permit applicants. To the extent that the proposed SPR attempts to emulate the ESA consultation process, it provides none of the procedures and safeguards necessary to make its proposed construct workable in practice. Instead, the proposed SPR unnecessarily bootstraps FWS into a state permitting regime and gives FWS unfettered discretion to impose endless requirements and needless delays on the permit approval process. This is both contrary to the intent of the ESA, and an impermissible attempt to expand the scope of the ESA through incorporation into another statute by regulation.

The Proposed Rule Impermissibly Shifts Responsibility for Jeopardy Determination and Conflates Listed and Proposed Species

Before approving a permit application, the proposed SPR would require that the regulatory authority find that the operation is not likely to jeopardize the continued existence of species listed or proposed for listing under the ESA. This proposal is problematic for two reasons. First, as part of the ESA consultation process, and as recognized in the existing regulatory provision, the action agency determines whether its action is likely to adversely affect a listed species. If this threshold is reached, FWS, and not the action agency, determines whether the action is likely to jeopardize a listed species or adversely modify its critical habitat. The proposed SPR disregards these defined roles and impermissibly shifts the obligation for determining jeopardy from FWS to the regulatory authority. Second, the requirement for a non-jeopardy finding on proposed species has no basis in the ESA. While a federal agency is required to confer on whether a discretionary federal action will jeopardize a species or adversely modify designated critical habitat for a species that is proposed to be listed, the ESA imposes no substantive or procedural prohibitions on actions that may affect these proposed species. The proposed SPR ignores this distinction in listing status and, by conditioning the approval of a permit application on avoiding the likelihood of jeopardy to a proposed species. In conditioning permit approval on the basis of a no jeopardy decision for a proposed species, the proposed SPR would impose a protective measure that is not required by the ESA.

On behalf of the farmers, ranchers, cities and counties, conservationists, rural irrigators, electric utilities, energy producers, forest and paper companies, homebuilders, agricultural interests, mining companies, and other businesses and individuals throughout the United States that NESARC represents, we thank you for holding this important hearing and appreciate the opportunity to provide NESARC's input on this critical issue.

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

'atthew H. Mead, Governor **John Cora, Director**

Written Testimony of John Corra, Director, Wyoming Department of Environmental Quality before the House Energy and Mineral Resources Subcommittee re OversightHearing on "Jobs at Risk: Community Impacts of the Obama Administration's Effort to Rewrite the Stream Buffer Zone Rule" – September 26, 2011

My name is John Corra. I am the Director of the Wyoming Department of Environmental Quality. I wish to thank the Subcommittee for inviting the State of Wyoming to testify at this hearing today. Wyoming coal mines produced 442 million tons of coal in 2010, over 40% of the nation's total production. This was accomplished by 6,800 miners operating some the most advanced equipment at 18 mines across the state. Production generates over $1.8 billion in taxes, royalties and fees for use by federal, state and local governments. The economic impact to the state is much greater. The industry has been recognized many times for both its superior safety programs and its innovative reclamation efforts. We have primacy for the administration of the Surface Mining Control and Reclamation Act (SMCRA) in Wyoming, and year over year receive high marks from the Office of Surface Mining (OSM) for our regulatory programs.

I would like to talk with you today about how Wyoming protects its waters and why this rule has little value for us. I will also speak to the disappointing process that has been followed to date relative to the Environmental Impact Statement (EIS) for this rule.

The OSM has used a court order and an agreement with other federal agencies that were aimed at tackling a problem in Appalachia as an excuse to impose un-necessary and costly over regulation across all coal mining states. The action OSM is undertaking is a comprehensive rewrite of regulations under SMCRA, not just a stream protection rule. The packaging of this major revision to a law that has served the country well for over 40 years as a "stream protection rule" is misleading. Some of the changes being contemplated have broad implications and deserve thoughtful re-evaluation.

We are unaware of any objective data, scientific or otherwise, that supports this level of change to SMCRA. The agency has not provided any objective data to support such comprehensive regulatory changes. In fact, OSM's most recent evaluation reports for 2010 strongly suggest otherwise. For example, the report for our state says that:"...the Wyoming

program is being carried out in an effective manner." The report also shows that we have gained much ground in increasing the ratio of acres reclaimed to disturbed acres over the past 12 years. The report also mentions no issues with regard to restoring mined land to approximate original contour or reclamation bonding. The report goes on to say that: "this lack of additional enforcement actions, despite increased inspection frequency, helps illustrate the effectiveness of Wyoming's regulatory program." And, inspections increased during the reporting period by a very significant 78%! While we are not perfect, and OSM does at times ask us to correct deficiencies, there is significant evidence from the OSM's own evaluation reports for Wyoming and other western states that current regulatory programs are working. Wyoming sees no justification for these significant rule changes or for the necessity of applying them nationwide.

OSM's rush for completing the rulemaking is at the expense of thoughtful discourse as required by National Environmental Policy Act (NEPA). This undue haste is limiting the thoughtful and reasonable "hard look" as required under NEPA. Although OSM had earlier identified an option to apply the regulations only to mountaintop removal and steep slope operations in Appalachia, that alternative seems to have been dropped. One of the primary justifications put forward by the agency in its Federal Register notice is a June 11, 2009 memorandum of understanding (MOU) between the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers and the Department of Interior. The MOU was specifically targeted at "Appalachian Surface Coal Mining", and Section 404 of the Clean Water Act (CWA) in the states of Kentucky, Ohio, Pennsylvania, Tennessee, Virginia and West Virginia. Despite this clear limitation in the MOU, the OSM rules are written to apply everywhere, including Wyoming.

NEPA requires an EIS to examine all reasonable alternatives to the proposal. If OSM proceeds with this rulemaking, it should be reminded not only of the MOU, but also its own recognition of differences between east and west and thereby apply the proposed regulations only east of the 100th Meridian. This approach would parallel SMCRA's (30 CFR Chapter VII 785.19) current legal framework and guidance documents reflecting recognition of hydrologic and reclamation changes at the 100th Meridian. For example, alluvial valley floor protection is only applied west of the 100th meridian. Likewise, the bond release clock is 5 years east of this line and 10 years for the west, which is a recognition of the arid and semi-arid environment in the western U.S.

The Clean Water Act also recognizes the unique differences between the arid west and the eastern part of the U.S. as noted in the National Pollutant Discharge Elimination System (NPDES) surface discharge regulatory program. This rulemaking may also conflict with state authorities under both the state SMCRA programs and under the Clean Water Act (CWA). OSM does not have the authority to attempt to broaden a state's water quality standards by adding new stream definitions, criteria, and restrictions such as "material damage to the hydrologic balance." There are no federal water quality standards in Wyoming and OSM lacks the authority to establish any. OSM must work through the State rulemaking process since the authority to establish water quality standards rests solely with the state. OSM cannot do an end run around the prohibition against setting water quality standards by requiring state regulatory authorities to establish more stringent "corrective action thresholds" at the direction of OSM. In addition,

"enhancement" concepts are likely to conflict with mitigation requirements under the Corps' § 404 program. OSM's proposals have serious potential to directly conflict with and/or duplicate CWA requirements of the state and/or the Corps.

There are good reasons to make a distinction between the management and regulation of water in the western U.S. as compared to the east. Recognizing differences in water uses, quality and availability, Clean Water Act regulations have historically treated the area of the country west of the 98th meridian (arid west) differently than the eastern portions. We can't help but think that both the Corps and EPA had this historical perspective about the nation's waters outside of Appalachia in mind when they signed the MOU. If OSM insists upon a national approach, we hope that the parties re-open the MOU and make it available for public comment.

The resource requirements and associated costs of implementing the proposed rules are of particular concern to the states. Proposed concepts regarding stream definitions, expanded biologic criteria, definition of material damage to the hydrologic balance and the replacement of Post Mining Land Uses with "climax communities" as a reclamation requirement all trample on effective and time-proven mining and reclamation efforts by the states. To elaborate on just one of these changes, the use of climax communities as a standard, it is widely recognized that the periodic drought conditions, grazing impacts, and other pre-mining land uses and climatic variables make it nearly impossible to determine what the state of vegetation was, or might be, let alone how to accurately measure it given the scale of variability that exists in the west.

Wyoming has the necessary regulations in place to assure stream protection and when necessary, stream diversion and reclamation, as evidenced by successful efforts that have been recognized by OSM over the years. I would like to review just a few examples.

North Tisdale Creek Stream Restoration, Caballo Coal Mine, Caballo Mining Company. This area was mined in the 1990's. The mine was required to record the pre-mining conditions, preserve topsoil, and reclaim the mining area to an approved post mining land use. As can be seen by the photo, restoration of a wetlands area has been successful. In fact the mine received awards in 2003 and again in 2009 for the successful reclamation of the North Tisdale Creek Wetlands, and the creation of wildlife habitat. Please see Exhibit 1.

Tongue River Stream Restoration, Big Horn Coal Mine, Big Horn Coal Company (subsidiary of Kiewit Mining). This project won the OSM 2011 Excellence in Surface Coal Mining Award. The Tongue River in northern Wyoming is a trout fishery at this location. As can be seen in the following photos, the mining operation progressed through the intersection of Goose Creek and the Tongue River. Note that the stream had to be relocated to accommodate mining. Stream function was modestly impaired for a period of time until restoration. It is unclear if this would be allowed under OSM's proposed rules concerning material damage and biologic thresholds for action. Note the reclaimed grasslands on both sides of the stream, and how it is beginning to blend in with the pre-mining vegetation shown in the background. Please see Exhibits 2a and 2b.

Caballo Creek Restoration, Belle Ayr Mine, Alpha Resources. This project won the 2007 OSM Reclamation and Enforcement Director's Award. Note the preservation of the stream gradient to ensure against excess erosion. Additionally, rock weirs were incorporated in the reclaimed channel to mimic the pre-mine riffle/pool structure of this intermittent prairie stream. Please see Exhibits 3a and 3b.

Other projects worth noting, but with no exhibits are:

Wyodak Mine: ~ 1.7 miles of Donkey Creek reclaimed with water flows returned to reclaimed channel in 2005.

Cordero-Rojo Mine: ~ 3.9 miles of Belle Fourche River reclaimed with water flows scheduled to be returned to reclaimed channel in December, 2012. Cordero-Rojo Mine received 2006 Excellence in Surface Mining and Reclamation Award from the WDEQ for design of this river channel reconstruction.

Eagle Butte Mine: ~ 2.0 miles of Little Rawhide Creek reclaimed.

Buckskin Mine: ~0.90 mile of Rawhide Creek; received the 1997 OSM Reclamation and Enforcement Director's Award for successful reclamation.

North Antelope Rochelle Mine: ~ 2.1 miles of Porcupine Creek reclaimed with water flows returned to two of the three reaches.

There are also cases where we refuse mining through important areas that, in our belief have key hydrologic issues or would not be capable of restoration. For example, Wyoming affords a high level of protection to alluvial valley floors, or stream valleys underlain by unconsolidated stream-laid deposits which have sufficient water availability to be important to agriculture.

Each mine application is reviewed carefully and the applicants are required to accurately describe the pre-mining conditions and land uses. An approvable mine permit application must contain a reclamation plan that assures achievement of post mining land uses, and a return of the land to a use equal to or better than before. We are proud of our regulatory efforts, and have had a long history of mine regulation and restoration, even prior to the enactment of SMCRA. We don't believe we would be the nation's largest coal supplier, as well as one of its most beautiful places, without the commitment of both our regulators and our industry. We are perplexed that the EIS process to date has been so distant from Wyoming.

OSM actions consistently appear to avoid or limit public and state comment throughout this rulemaking. Initially the agency tried to avoid rulemaking altogether by asking a federal court to allow it to revise the stream buffer zone rule through a guidance document. This request was denied. Next, OSM denied multiple requests for additional time to comment on their advanced notice of proposed rulemaking on this issue in December, 2009, providing the bare bones minimum period of time required by law for one of the most complicated rulemaking efforts in OSM's history. The agency's initial scoping notice was so deficient that OSM had to issue a second notice providing more information in June 2010. Scoping meetings were a sham, because the public was not even allowed to speak publicly at the agency's public meetings. The public open house meeting in Gillette, Wyoming, which is the center of 40 percent of the coal

production in the US, was held the evening of July 29, 2010. The comment period ended July 30, 2010. This hardly represents time for thoughtful discourse.

The EIS documents provided by OSM have-been poorly written, unclear and sometimes internally inconsistent. The unreasonably complex process of 5 alternatives with 11 items for each alternative results in 55 options to evaluate. It has been difficult to follow.

Wyoming is a "cooperating agency" in preparation of the EIS. Yet, we do not believe we have been given meaningful opportunity to comment and participate. Sections of the EIS with 25, 50, and even 100's of pages were distributed to the States with only a few days to read, review, and provide comment back to the agency. States were forced to withdraw staff from permitting and other critical areas in order to have any opportunity to provide feedback to OSM within the required timeframe. Even when states take such measures, meaningful comments could not be provided in an appropriate manner.

OSM appears to be ignoring the resource implications for these proposed rules. We find this particularly disturbing in light of the fact that OSM has a goal of significantly reducing their share of funding for our regulatory program.

The proposed rules will result in massive increases of information and data collection that may not even be useful or practical in improving environmental performance. This is a significant resource burden and suggests that OSM pay close attention to the cost/benefits of forcing a solution to an eastern problem upon western states, such as Wyoming. We are hopeful, now that OSM has retained a new contractor and pressed the pause button on the EIS process, that it will comply with its obligations under NEPA and conduct a genuine EIS process where States are engaged in real discussions of the regulatory options and EIS alternatives. They have committed to do so, and I hope we get the chance to share Wyoming's expertise.

I also suggest that OSM extend its deadline so that it can re-examine the "purpose and need" for these rules, provide appropriate scientific and factual information to support a rule change of this magnitude on a national scale, and engage Wyoming and other states in a more meaningful way. An extension would also allow enough time to thoroughly evaluate the economic impacts of the rule. The analysis that we have seen so far is inadequate especially given the complex decision making process that a customer using a given type of coal uses in fuel-switching decisions. The myriad air and water rules that are either published or pending regarding just the utility industry alone is enough to throw into question any simple assumptions that coal production will simply shift around the country as a result of OSM's proposal.

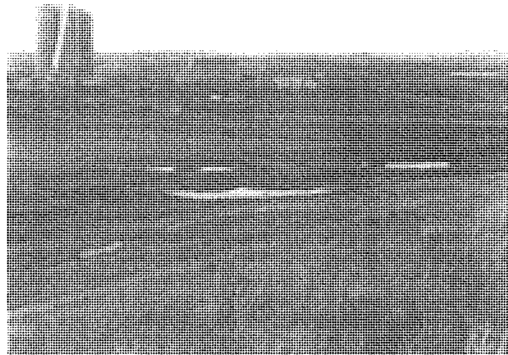
EXHIBITS

NORTH TISDALE CREEK STREAM RESTORATION

2003 and 2009 OSM Reclamation and Enforcement Director's Awards

Caballo Coal Mine,

Caballo Mining Company



- *2003 award for successful reclamation and creation of wildlife habitat along the Tisdale Creek Drainage.*
- *2009 award for successful reclamation of the North Tisdale Creek Wetlands*

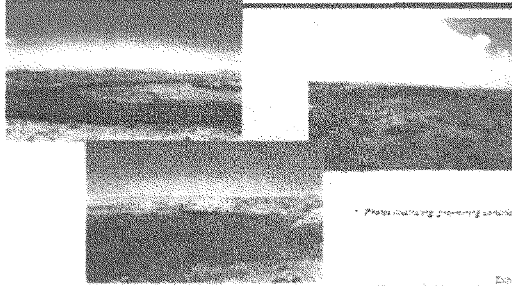
Exhibit 1
Congressional Hearing on OSM Stream Protection Rule
September [illegible], 2011, Charleston, WV

CABALLO CREEK RESTORATION

2007 OSM Reclamation and Enforcement Director's Award

Belle Ayr Coal Mine,

Alpha Natural Resources

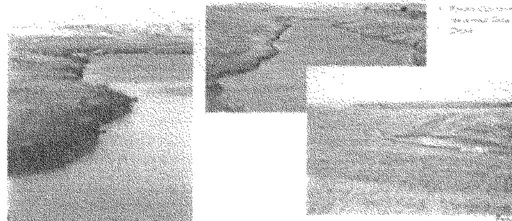


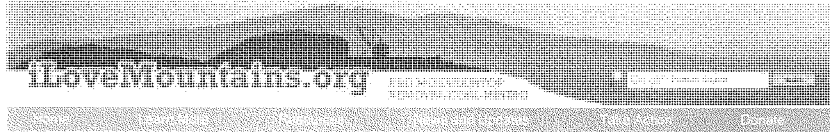
CABALLO CREEK RESTORATION

2007 OSM Reclamation and Enforcement Director's Award

Belle Ayr Coal Mine,

Alpha Natural Resources





the Human Cost of Coal

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Peer-reviewed Study Details

From 2007 to the present, 21 peer-reviewed scientific studies have proven the negative impacts that coal mining has on the economy, ecology and human health in Central Appalachia. The evidence is overwhelming. Coal mining has damaging effects on the ecosystem � *and human lives.*

Here you will find plain-English summaries of these studies meant to be easily understood by non-experts.

The summaries were written by Coal River Mountain Watch, and you can read more about each study and download additional resources on their website. Kentuckians for the Commonwealth and the Ohio Valley Environmental Coalition also have additional resources available.

Key Facts

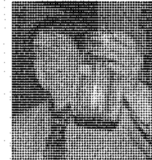
- people living near mountaintop mining have cancer rates of 14.4% compared to 9.4% for people elsewhere in Appalachia
- the rate of children born with birth defects is 42% higher in mountaintop removal mining areas
- the public health costs of pollution from coal operations in Appalachia amount to a staggering $75 billion a year

2012 - Mountaintop Removal and Job Creation: Exploring the Relationship Using Spatial Regression

The authors focus on the impacts of MTR on the quality of life of residents in central Appalachia through increased employment. This paper addresses the argument by many policymakers that despite the environmental impacts, MTR contributes to local economies through job creation and retention. The authors used �socio-spatial analysis� to investigate MTR's impact on employment in communities in southern West Virginia. They integrated coal mining permit boundaries with employment indicators obtained from the U.S. Census. Contrary to pro-MTR arguments, the authors found �no supporting evidence suggesting MTR contributed positively to nearby communities' employment.� The authors also use Gaventa�s (1980) work to link their findings to �broader issues of hegemony [power, domination] at the local level as well as at larger scales of policy formation.�

Brad R. Woods and Jason S. Gordoni
Annals of the Association of American Geographers, 2011

2011 - Cumulative impacts of mountaintop mining on an Appalachian watershed



Beverly May holds contaminated water samples taken from her home in Floyd County, Kentucky.

Take Action

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View Options

» Main interactive map
» Health and economic study summaries
» Detailed profiles of Appalachian counties - click a county on the interactive map and follow the link

Scientific Studies

2012 - Mountaintop Removal and Job Creation: Exploring the Relationship Using Spatial Regression

2011 - Cumulative impacts of mountaintop mining on an Appalachian watershed

2011 - Falling behind: life expectancy in US counties from 2000 to 2007 in an international context

2011 - Severe Occupational Pneumoconiosis Among West Virginia Coal Miners: 138 Cases of Progressive Massive Fibrosis Compensated Between 2000-2009

2011 - Health-Related Quality of Life Among

Mountaintop mining is the dominant form of coal mining and the largest driver of land cover change in the central Appalachians. The waste rock from these surface mines is disposed of in the adjacent river valleys, leading to a burial of headwater streams and dramatic increases in salinity and trace metal concentrations immediately downstream. In this synoptic study we document the cumulative impact of more than 100 mining discharge outlets and approximately 28 km2 of active and reclaimed surface coal mines on the Upper Mud River of West Virginia. We measured the concentrations of major and trace elements within tha tributaries and the mainstem and found that upstream of the mines water quality was equivalent to state reference sites. However, as eight separate mining-impacted tributaries contributed their flow, conductivity and the concentrations of selenium, sulfate, magnesium, and other inorganic solutes increased at a rate directly proportional to the upstream areal extent of mining. We found strong linear correlations between the concentrations of these contaminants in the river and the proportion of the contributing watershed in surface mines. All tributaries draining mountaintop-mining-impacted catchments were characterized by high conductivity and increased sulfate concentration, while concentrations of some solutes such as Se, Sr, and N were lower in the two tributaries draining reclaimed mines. Our results demonstrate the cumulative impact of multiple mines within a single catchment and provide evidence that mines reclaimed nearly two decades ago continue to contribute significantly to water quality degradation within this watershed.

T. Ty Lindberg, Emily S. Bernhardt, Raven Bier, A. M. Helton, R. Brittany Merola, Avner Vengosh, and Richard T. Di Giulio (2011) – Proceedings of the National Academy of Sciences of the United States of America

2011 - Falling behind: life expectancy in US counties from 2000 to 2007 in an international context

In this study, an analysis of life expectancy on the county level showed that all of the eight counties in Kentucky where ICG and Frasure Creek operate mountaintop removal mines are among the bottom 10% of US counties in terms of life expectancy, and all but two of these counties have seen a decrease in life expectancy over the past 10 years. �Two of the counties, Perry and Pike, which happen to be the two biggest coal producing counties in Kentucky, were both among the bottom 10 (out of 3,147 counties) for trends in life expectancy between 1997 and 2007. While nationwide life expectancy increased by 1.5 years over the decade, average life expectancy in these two counties actually decreased by about a year. �In West Virginia, Mingo, Logan, and McDowell counties (all of which are heavily burdened by mountaintop removal) are in the bottom 1% in the nation. The surrounding counties including Lincoln, Boone, and Wyoming are in the bottom 10%.

Kulkarni, SC., A. Levin-Rector, M. Ezzati and C. Murray. �Falling behind: life expectancy in US counties from 2000 to 2007 in an international context�. *Population Health Metrics*. 9(2011): 16.

2011 - Severe Occupational Pneumoconiosis Among West Virginia Coal Miners: 138 Cases of Progressive Massive Fibrosis Compensated Between 2000-2009

A study conducted by West Virginia University concluded that despite existing regulations on dust levels, coal miners continue to die from black lung disease. In the details of the study, it was revealed the black lung developed in 138 West Virginia coal miners at a mean age of 52.6 years after an average of 30 years work tenure. In addition, overall lung function declined dramatically, especially among individuals who were engaged in work tasks that put them in direct contact to dust exposure. The authors state that �virtually all these miners� dust exposures occurred after the implementation of current Federal dust regulations.�

Wade, AW., E.L. Petsonk, B. Young, and I. Mogri. ��Severe Occupational Pneumoconiosis Among West Virginia Coal Miners: 138 Cases of Progressive Massive Fibrosis Compensated Between 2000-2009.� *CHEST*.. 139, 6 (2011): 1458-1462.

Central Appalachian Residents in Mountaintop Mining Counties

2011 - The association between mountaintop mining and birth defects among live births in central Appalachia, 1996�2003

2011 - Full cost accounting for the life cycle of coal

2011 - Mountaintop Mining Valley Fills and Aquatic Ecosystems: A Scientific Primer on Impacts and Mitigation Approaches

2011 - Poverty and Mortality Disparities in Central Appalachia: Mountaintop Mining and Environmental Justice

2011 - Chronic Cardiovascular Disease Mortality in Mountaintop Mining Areas of Central Appalachian States

2011 - Self-Reported Cancer Rates in Two Rural Areas of West Virginia with and without Mountaintop Coal Mining

2010 - Ecological Integrity of Streams Related to Human Cancer Mortality Rates

2010 - Residence in Coal-Mining Areas and Low Birth Weight Outcomes

2010 - A Geographical Information System-Based Analysis of Cancer Mortality and Population Exposure to Coal Mining Activities in West Virginia

2010 - A Comparative Analysis of Health-Related Quality of Life for Residents of U.S.Counties with and without Coal Mining

2010 - Learning Outcomes among Students in Relation to West Virginia Coal Mining: an Environmental Riskscape Approach

2010 - Mountaintop Mining Consequences

2009 - Mortality from Heart, Respiratory, and Kidney Disease in Coal Mining Areas of Appalachia

2009 - Mortality in Appalachian Coal Mining Regions: The Value of Statistical Life Lost

2008 - Early Deaths: West Virginians Have Some of the Shortest Life Expectancies in the United States

2008 - Relations Between Health Indicators and Residential Proximity to Coal Mining in West Virginia

2011 - Health-Related Quality of Life Among Central Appalachian Residents in Mountaintop Mining Counties

In this study, residents in counties with mountaintop removal coal mining reported an average of 18 more unhealthy days (poor physical, mental, and activity limitation)�per year as compared to other counties: �"...*approximately 1,404 days, or almost four years, of an average American lifetime.*���The authors state that these results contribute to the evidence base in support of the EPA's April 2010 decision to make new mountaintop removal coal mining permits more difficult to obtain.

Zullig, KJ. and M. Hendryx.(2011) "Health-Related Quality of Life Among Central Appalachian Residents in Mountaintop Mining Counties."�*American Journal of Public Health*. 101, 5 (2011): 848-53.

Read the full article and learn more:
http://crmw.net/resources/mtr-and-health-related-quality-of-life.php

2011 - The association between mountaintop mining and birth defects among live births in central Appalachia, 1996�2003

This study found that�*six types of birth defects*�� circulatory/respiratory, central nervous system, musculoskeletal, gastrointestinal, urogenital and problems from �other� types of defects ��*occurred more frequently in areas near mountaintop removal mines*. The results also showed a spatial correlation that suggests that mountaintop removal in one county may cause birth defects in nearby counties.

Ahern, M., M. Hendryx, J. Conley, E. Fedorko, A. Ducatman, and K. Zullig. (2011)�The association between mountaintop mining and birth defects among live births in central Appalachia, 1996�2003." Environmental Research: Article in Press.

Read the full article and learn more:
http://crmw.net/resources/mtr-and-birth-defects.php

2011 - Full cost accounting for the life cycle of coal

This study found that the environmental damage caused by all the aspects of coal�s life cycle, including emissions and impact on climate change, cost the American public roughly $500 billion annually and increased the true cost of coal by up to $0.17/kWh. The study included the more than 100,000 miners killed since 1900 and the federal funding needed to cover medical costs associated with black lung disease, which has claimed more than 200,00 lives. �The authors state that ��these [externalities] are often not taken into account in decision making and when they are not accounted for, they can distort the decision-making process and reduce the welfare of society.�

Epstein, P., J. Buonocore, K. Eckerle, M. Hendryx, B. M. Stout III, R. Heinberg, R. W. Clapp, B. May, N. L. Reinhart, M. M. Ahern, S. K. Doshi, and L. Glustrom. (2011) "Full cost accounting for the life cycle of coal."�*Annals of the New York Academy of Sciences*. 1219: 73-98.

Read the full article and learn more:
http://crmw.net/resources/the-cost-of-the-full-life-cycle-of-coal.php

2011 - Mountaintop Mining Valley Fills and Aquatic Ecosystems: A Scientific Primer on Impacts and Mitigation Approaches

Southern Appalachian forests are recognized as a biodiversity hot spot of global significance,

2008 - Lung cancer mortality is elevated in coal-mining areas of Appalachia

2008 - Mortality Rates in Appalachian Coal Mining Counties: 24 Years Behind the Nation

2007 - Hospitalization Patterns Associated with Appalachian Coal Mining

particularly for endemic aquatic salamanders and mussels. The dominant driver of land-cover and land-use change in this region is surface mining, with an ever-increasing proportion occurring as mountaintop mining with valley fill operations (MTVF). In MTVF, seams of coal are exposed using explosives, and the resulting noncoal overburden is pushed into adjacent valleys to facilitate coal extraction. To date, MTVF throughout the Appalachians have converted 1.1 million hectares of forest to surface mines and buried more than 2,000 km of stream channel beneath mining overburden. The impacts of these lost forests and buried streams are propagated throughout the river networks of the region as the resulting sediment and chemical pollutants are transmitted downstream. There is, to date, no evidence to suggest that the extensive chemical and hydrologic alterations of streams by MTVF can be offset or reversed by currently required reclamation and mitigation practices.

Margaret A. Palmer and Emily S. Bernhardt(2011) Annals Of The New York Academy Of Sciences

2011 - Poverty and Mortality Disparities in Central Appalachia: Mountaintop Mining and Environmental Justice

Hendryx found that mountaintop removal coal mining areas had �significantly higher mortality rates, total poverty rates and child poverty rates every year� as compared to other counties. �He concludes that people living in mountaintop removal coal mining areas experience persistently elevated poverty and mortality rates and that efforts to reduce these disparities must focus on the Appalachian coalfields.

Hendryx, M.� (2011) �Poverty and Mortality Disparities in Central Appalachia: Mountaintop Mining and Environmental Justice.� Journal of Health Disparities Research and Practice: Vol 4 (3) pp 44-53.

Read the full article and learn more: http://crmw.net/resources/mtr-poverty-and-mortality-rates.php

2011 - Chronic Cardiovascular Disease Mortality in Mountaintop Mining Areas of Central Appalachian States

This study found that mountaintop removal coal mining activity is �significantly� associated with elevated chronic cardiovascular disease mortality rates and recommends more research on the socioeconomic and environmental impacts of mountaintop removal coal mining on public health.

Esch, L. and M. Hendryx. �(2011) �Chronic Cardiovascular Disease Mortality in Mountaintop Mining Areas of Central Appalachian States.�� Journal of Rural Health.

Read the full article and learn more: http://crmw.net/resources/mtr-and-chronic-heart-disease.php

2011 - Self-Reported Cancer Rates in Two Rural Areas of West Virginia with and without Mountaintop Coal Mining

This study focuses specifically on the risks for residents living in communities with mountaintop removal coal mining.� Using data from a health survey, the authors found that the incidence of self-reported cancer was much higher in mountaintop removal coal mining communities.� The authors state that �if the rates found in this study represent the region, a 5% higher cancer rate translates to an additional 60,000 people with cancer in central Appalachian mountaintop mining counties.�

Hendryx, M., L. Wolfe, J. Luo, and B. Webb.� (2011) �Self-Reported Cancer Rates in Two Rural Areas of West Virginia with and without Mountaintop Coal Mining.� �Journal of Community Health.

Read the full article and learn more:

http://crmw.net/resources/mtr-and-cancer.php

2010 - Ecological Integrity of Streams Related to Human Cancer Mortality Rates

This study linked the ecological integrity of streams to cancer mortality in nearby communities of West Virginia. �This study also found significant links between coal mining, decreased ecological integrity, and increasing cancer mortality rates. These findings indicate that West Virginians living near streams polluted by mine waste are more likely to die of cancer.

Hitt, NP. (2010) "Ecological Integrity of Streams Related to Human Cancer Mortality Rates." *EcoHealth*. 7 : 91-104.

2010 - Residence in Coal-Mining Areas and Low Birth Weight Outcomes

This study found that after controlling for covariates (other influences), residents in coal mining areas of West Virginia still had a higher risk of having a baby with a low birth weight.� The authors state that the �persistence of a mining effect on low birth weight outcomes suggests an environmental effect resulting from pollution from mining activities,� and that air and water quality assessments are needed for mining communities.

Ahern, M., M. Mullett, K. MacKay and C. Hamilton.� (2010) �Residence in Coal-Mining Areas and Low Birth Weight Outcomes.�� Maternal Child Health, Jan 2010.

Read the full article and learn more:
http://crmw.net/resources/coal-mining-and-low-birth-weight.php

2010 - A Geographical Information System-Based Analysis of Cancer Mortality and Population Exposure to Coal Mining Activities in West Virginia

This study uses two geographical information system (GIS) techniques to find that the activities of the coal mining industry contribute to cancer mortality. �This study uses a new measure to look at the distance of populations to components of the coal mining industry such as mines, processing plants, slurry impoundments, and underground slurry injections. �The results add to the body of evidence that coal mining poses environmental risks to residents of coal mining communities in West Virginia.

Hendryx, M., E. Fedorko, and A. Anesetti-Rotherme.� (2010) �A Geographical Information System-Based Analysis of Cancer Mortality and Population Exposure to�Coal Mining Activities in West Virginia.�� Geospatial Health 4(2), 2010

2010 - A Comparative Analysis of Health-Related Quality of Life for Residents of U.S.Counties with and without Coal Mining

The authors show that residents of coal mining counties both inside and outside of Appalachia had fewer healthy days for both physical and mental reasons.� The disparities were greatest for people residing in Appalachian coal mining areas.� The authors conclude that residents living in coal mining areas are �characterized by greater socioeconomic disadvantage, riskier health behaviors, and environmental degradation� which are all associated with a lower health-related quality of life.

Zullig, K., and M. Hendryx.� (2010) �A Comparative Analysis of Health-Related Quality of Life for Residents of U.S.Counties with and without Coal Mining.�� Public Health Reports, Volume 125

Read the full article and learn more:
http://crmw.net/resources/coal-mining-and-quality-of-life.php

2010 - Learning Outcomes among Students in Relation to West Virginia Coal Mining: an Environmental Riskscape Approach

In this study, the authors examined the associations between coal mining and learning outcomes among students in West Virginia public schools 2005-2008.� The authors found that �disparities in educational performance in mining areas� reflected many different �environmental riskscape� disadvantages for students living in coal mining areas.� The authors recommend further research on the linkages between mining pollution and learning outcomes in children.

Cain, L., and M. Hendryx.� (2010)� �Learning Outcomes among Students in relation to West Virginia Coal Mining: an Environmental Riskscape Approach.�� Environmental Justice, Volume 3, Number 2, 2010.

Read the full article and learn more:
http://crmw.net/resources/coal-mining-and-learning-outcomes.php

2010 - Mountaintop Mining Consequences

In this landmark article in *Science* magazine, 12 scientists conducted an independent study and literature review on the impacts of environmental contamination from mountaintop removal mining. �Results included evidence of water pollution even on reclaimed sites, increased hospitalizations for chronic pulmonary disorders and hypertension, and increased incidents of lung cancer, chronic heart, lung and kidney disease, and overall mortality rates. As a result of these findings, the paper calls for the halting of all new mountaintop removal mining permits.

Palmer, M.S., E. S. Bernhardt, W. H. Schlesinger, K. N. Eshleman, E. Foufoula-Georgiou, M. S. Hendryx, A. D. Lemly, G. E. Likens, O. L. Loucks, M. E. Power, P. S. White, P. R. Wilcock. (2010) "Mountaintop Mining Consequences."�*Science*, 327: 148-9.

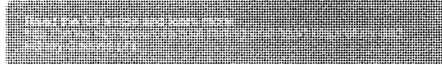
Read the full article and learn more:
http://crmw.net/resources/mountaintop-mining-consequences.php

2009 - Mortality from Heart, Respiratory, and Kidney Disease in Coal Mining Areas of Appalachia

Hendryx found that chronic heart, respiratory, and kidney disease were significantly higher in coal mining areas of Appalachia than in non-mining areas. He states that coal mining activities expose residents to environmental contaminants like particulate matter and toxic chemicals, agents known to

cause chronic disease. �Hendryx states that it is �critical to address issues of environmental equity and to reduce environmental and socioeconomic disparity through economic and policy interventions.�

Hendryx, M. �(2009) "Mortality from heart, respiratory, and kidney disease in coal mining areas of Appalachia."�*International Archives of Occupational and Environmental Health*. 82: 243-49.



2009 - Mortality in Appalachian Coal Mining Regions: The Value of Statistical Life Lost

An analysis of the value of statistical life lost showed that the costs associated with coal mining in Appalachia continue to exceed the economic benefits gained from mining. The authors found that "age-adjusted mortality rates were higher every year from 1979 � 2005 in Appalachian coal mining areas compared with other areas of Appalachia or the nation.� Illnesses seen in coal mining areas of Appalachia �are consistent with a hypothesis of exposure to water and air pollution from mining activities.�

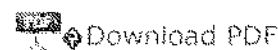
Hendryx, M. (2009) "Mortality in Appalachian Coal Mining Regions: The Value of Statistical Life Lost."�*Public Health Reports*. 124: 541-50

Read the full article and learn more
http://crmw.net/resources/coal-mining-and-mortality.php

2008 - Early Deaths: West Virginians Have Some of the Shortest Life Expectancies in the United States

West Virginians for Affordable Health Care analyzed a 2008 report from Harvard which examined life expectancies in the U.S. �They found that�Southern West Virginia has some of the lowest life expectancies in the country. McDowell, Logan and Mingo counties were rated among the lowest one percent for shortest life expectancy in the United States. � Another three counties — all in southern West Virginia — were rated among the lowest ten percent for life expectancy in the U.S.

A number of counties in West Virginia experienced a reduction in life expectancy for both men and women. �For women the reduction in life expectancy was far more pronounced. �In Logan County life expectancy for women dropped by more than 2 1/2 years from 1989 to 1999. In Boone County life expectancy fell by almost 2 1/4 years between 1992 and 1999. In Taylor/Barbour counties life expectancy for women fell by 2 1/4 years between 1988 and 1999.

�Download PDF

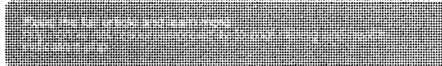
West Virginians for Affordable Health Care. (2008)�*Early Deaths: West Virginians Have Some of the Shortest Life Expectancies in the United States.*

2008 - Relations Between Health Indicators and Residential Proximity to Coal Mining in West Virginia

This study compared data from a survey of 16,493 West Virginians with county-level coal production to investigate the relations between health and residential proximity to coal mining.�The findings show that people living near coal mining operations are more likely to suffer from a variety of diseases including *cardiopulmonary disease, chronic obstructive pulmonary disease, hypertension, lung disease,*

and kidney disease.

Hendryx, M. (2008) �"Relations Between Health Indicators and Residential Proximity to Coal Mining in West Virginia."�*American Journal of Public Health*, 98: 669-71.



2008 - Lung cancer mortality is elevated in coal-mining areas of Appalachia

This study tests whether residence in coal mining areas in Appalachia is a contributing factor to lung cancer.� After adjusting for factors like smoking, poverty, education, age, sex, race, etc., results show higher rates of lung cancer mortality from 2000 � 20004 in areas of heavy coal mining.� The authors state that �the set of socioeconomic and health inequalities characteristic of coal-mining areas of Appalachia highlights the need to develop more diverse, alternative local economies.�

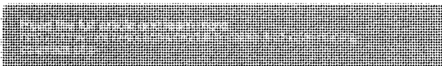
Hendryx, M., K. O�Donnell and K. Horn. (2008) "Lung cancer mortality is elevated in coal-mining areas of Appalachia".�*Lung Cancer*. 62: 1-7.

Read the full article and learn more:
http://crmw.net/resources/coal-mining-and-lung-cancer.php

2008 - Mortality Rates in Appalachian Coal Mining Counties: 24 Years Behind the Nation

Hendryx found that the mortality rate in coal mining areas is equal to the nationwide mortality rate *24 years ago:* ��mortality rates for coal mining areas in 2004 are about the same as those for counties outside Appalachia from 1980.��After adjusting for a variety of factors (poverty, smoking, level of education, and race-related effects), coal mining areas of Appalachia still showed significantly higher age-adjusted mortality rates as compared to non-coal mining areas: �Appalachian coal mining areas were characterized by 1,607 excess annual deaths over the period 1999-2004.�

Hendryx, M. (2008) "Mortality rates in Appalachian coal mining counties: 24 years behind the nation". *Environmental Justice*. 1, 1: 5-11.



2007 - Hospitalization Patterns Associated with Appalachian Coal Mining

In this study, the authors found that the volume of coal mining has a significant impact on hospitalization risk, particularly for hypertension and chronic obstructive pulmonary disease (COPD). The findings of this study showed the odds for hospitalization for COPD increased 1% for each 1462 tons of coal produced and the odds of hospitalization for hypertension increased 1% for every 1873 tons. Both of these conditions are related to exposure to particulates and other pollution associated with coal mining. The authors also point out other effects of the production and consumption of coal including air pollution, occupational hazards, and global climate change.

Hendryx, M., M. Ahern, and T. Nurkiewicz. (2011) "Hospitalization Patterns Associated with Appalachian Coal Mining."�*Journal of Toxicology and Environmental Health, Part A*, 70: 2064-70.

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