Comments to Office of Surface Mining Reclamation and Enforcement
Regarding the Stream Protection Rule, and the Intent
To Prepare an Environmental Impact Statement.
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The Appalachian Wildlife Foundation (AWF) is a 501-c-3, non-profit wildlife conservation organization committed to ecological restoration in the Appalachian region. One focus for our mission is the restoration of wildlife and habitat within the context of energy development, particularly surface mining for coal. We are submitting the following comments on the **Office of Surface Mining Reclamation and Enforcement 30 CFR Chapter VII RIN 1029–AC63 Stream Protection Rule; Environmental Impact Statement**.

Our comments address the issue of reforestation as presented by OSMRE, and some things we would like to have considered regarding the ability to create upland wetland habitats on reclaimed mines. First, we will respond to the reforestation issue as presented by OSMRE in the excerpt from their document below.

"Reforestation. Alternatives under consideration include: (1) Requiring reforestation of mined lands to premining diversity and stocking or some percentage of premining diversity and stocking; (2) Requiring reforestation of all mined lands capable of supporting forested land uses; (3) Requiring reforestation of mined lands to the extent compatible with postmining land use; (4) Requiring reforestation and revegetation of mined lands with native species; and (5) Minimizing forest fragmentation".

Our response first addresses the overall issue of requiring reforestation and then we discuss the 3 of the alternatives for reforestation.

Requiring reforestation

The Appalachian Wildlife Foundation is adamantly opposed to this proposed rule change. We are dealing with private lands and the objectives of the landowner have to be respected. Even when the landowner does not have a specific wildlife habitat or land use objective beyond the mining activity, there are often other partners or parties that have preferences as to how mine

sites are reclaimed. By requiring that a mine site be reforested, OSMRE will be removing all flexibility that is now present within mine reclamation laws to create and restore habitat for a diversity of wildlife species.

Most mine sites can be reclaimed to create habitat for everything and anything from ducks and bullfrogs, to elk and quail, to deer and turkeys and rabbits, to imperiled grassland birds and raptors, and honeybees and butterflies, to woodland warblers and bats. In the last 5 years, personnel with the Appalachian Wildlife Foundation have designed mine reclamation jobs to provide habitat for all of these species.

The coal fields of Kentucky, West Virginia, Virginia and Tennessee have experienced the restoration and return of wild turkeys, white-tailed deer, elk, black bears, river otters, beavers, and wood ducks. Biologists from these state agencies will tell you that the highest populations of game species like deer and turkeys are within the landscapes impacted by mining. A spring day visit to reclaimed mine lands is often greeted by the whistling of Northern bobwhite quail, and the songs of many grassland and shrub habitat songbirds that are experiencing significant range-wide population declines. The list includes species like Grasshopper sparrows, Prairie warblers, Indigo buntings, Golden-winged warblers, Eastern Meadowlarks, and Horned larks. Birds of prey such as Short-eared owls, Northern Harriers, and several hawk species are common.

With this said, there are many situations when reforesting more of the mined landscape would actually benefit edge and even a “grassland” species like elk. A permitted area might be in a landscape where there has already been extensive mining and reclamation with grasses and forbs, and reforesting the entire permit area might be needed to meet the habitat needs of even edge species. Concurrently, if the objective of the landowner is oriented towards ruffed grouse, forest songbirds or bat species, then complete reforestation would be the preferred option.

They key to all this however is to maintain the flexibility to reclaim a mine in a manner that meets specific and diverse wildlife habitat objectives. The Appalachian Wildlife Foundation is not opposed to the reforestation of mine sites if it is the preferred option of the landowner and if it fits into meeting a wildlife habitat restoration objective as part of a landscape habitat matrix.

Requiring reforestation would also have an impact on the efforts of several state wildlife agencies that are engaged in specific wildlife recovery plans. Two years ago the Kentucky Department of Fish and Wildlife Resources launched a Bobwhite Quail Restoration Initiative. The Northern Bobwhite Quail is experiencing range-wide population declines because of the loss of suitable habitat. Two of the focus areas for this effort are in the eastern and western coal fields of Kentucky. Requiring reforestation of mine sites will seriously impede this effort to create habitat for quail and other imperiled grassland bird species.

In the southeastern coalfields of Kentucky there is a wild elk herd that numbers more than 10,000. In 2009 and 2010 more than 46,000 people each year paid $10 to apply for a chance to obtain an elk tag and hunt elk. The economic impacts and activity around the Kentucky elk herd are growing every year and affecting hundreds of thousands of people. These animals are thriving on mine sites reclaimed with grasses and forbs, and trees in many places. Tennessee has an elk herd of 400 animals in their coal fields, and West Virginia will one day be an elk state as well. Elk are native to every state in the lower 48 except for Florida and a couple of states in the Northeast. The restoration of elk to the Appalachians is a tremendous success story and these animals are thriving on reclaimed mine lands.

The West Virginia Department of Natural Resources has been designing mine reclamation jobs for wildlife habitat for over 30 years. Their focus is on creating grassland and shrub habitat for small game and to provide the habitat diversity that white-tailed deer and wild turkeys need to thrive. Requiring reforestation of mine sites will take away the ability of this state wildlife agency to restore habitat for a wide variety of wildlife species.

The Virginia Department of Game and Inland Fish is in the process of launching an elk restoration effort in the coal fields of southwestern Virginia. The habitat landscapes created by mine reclamation will be the core of this effort. This state wildlife agency is also engaged in a Bobwhite Quail restoration initiative and the southwestern coal fields are a focus area of this effort. If reforestation of mine sites is required by OSM, these efforts could be negatively impacted.

The US Office of Surface Mining Reclamation and Enforcement launched the Appalachian Regional Reforestation Initiative (ARRI). This effort has been very successful in researching and developing techniques to improve tree growth and survival on mine sites. By using the Forest Reclamation Approach (FRA) of site preparation, research and experience has demonstrated remarkable results at growing trees. The FRA offers many options and opportunities for wildlife habitat restoration on mine sites.

However, there has been very little research and monitoring done on wildlife habitat restoration using these methods. ARRI has received little or no input from the wildlife conservation community and not a single state wildlife agency is a cooperator in this effort. While we believe that the tree planting and site preparation technology that has been developed through ARRI efforts can be very valuable tools to use in ecological restoration efforts, there are other issues to consider including the landscape context and the human dimensions factor.

We will now address 3 of the alternatives OSM offers for reforestation.

(1) <u>Requiring reforestation of mined lands to premining diversity and stocking or some percentage of premining diversity and stocking.</u>

There is a very basic problem with this alternative. Much of the deciduous forests of the eastern United States have experienced almost 200 years of high-grading timber harvest

methods. High-grading involves the selective harvest of the most commercially desirable tree species from a forest. The result is a remnant forest composed of less desirable tree species and ill-formed trees. Therefore, reforestation to the premining stand composition and diversity could often be inadequate within the context of ecological restoration.

(2) Requiring reforestation and revegetation of mined lands with native species.
The Appalachian Wildlife Foundation is opposed to this alternative. While we understand the concerns about planting invasive exotic species, there are non-native species of grasses, forbs, trees and shrubs that are not invasive and can provide some very good wildlife habitat benefits. Clovers, crabapple, wild plum, sawtooth oak, and some lespedezas are good examples. Also, it has been our experience that establishing stands of native grasses and forbs to an extent that they stabilize mine sites and prevent erosion can be very difficult, very expensive, and almost impossible in some cases. The species selected for planting should be based on the habitat needs of the target wildlife species of the reclamation project and not an arbitrary rule based on the geographic origin of a plant.

(3) Minimizing forest fragmentation.
We completely understand the ecological principles that can lead to concerns regarding forest fragmentation. Forest fragmentation can have negative impacts on forest interior songbirds and other species that depend on large, unbroken tracts of forests. We have heard concerns about "edge species" and "edge effect". The eastern coalfields of Kentucky are 93% forested, and this includes cities, towns, lakes, streams, roads and all other human development. Mine sites tend to be clustered based on transportation infrastructure. While there is forest fragmentation around these mine sites, most of the region is composed of a closed canopy, contiguous forest. While edge effect can negatively impact forest interior songbirds and some other species, edge effect is very beneficial to many desirable wildlife species like deer, turkeys, elk, rabbits, quail, grouse, raptors, small mammals, and several species of neo-tropical migrant songbirds.

If the owner of a mine site has the desire to minimize forest fragmentation by reforesting their mine site, reforestation should be encouraged and supported. However, the landowner may wish to provide habitat for wildlife species that thrive in edge habitats. We believe that is a decision that should be made by the private landowner, and not regulated by the federal government. We are not aware of any other federal regulations outside of the Endangered Species Act that can dictate and regulate forest cover on private lands. An attempt by OSMRE to regulate against forest fragmentation on private land would set an incredible precedent, and could have ramifications well beyond the mine reclamation world.

Why we need flexibility in mine reclamation rules
The Appalachian Wildlife Foundation wants OSM to maintain flexibility in mine reclamation rules because we are working closely with the mining industry, regulators, state wildlife agencies and other partners to improve the ways mines are reclaimed for wildlife. While many reclaimed mines provide quality habitat for wildlife, there is room for overall improvement in wildlife and habitat restoration on mine sites. Part of the mission of the Appalachian Wildlife

Foundation is to work in a positive manner and in partnership with all parties to create a culture of innovation that leads to the absolute best outcomes in wildlife and habitat restoration through the reclamation process. However, if OSM proceeds in requiring reforestation of all mine sites, we will lose the flexibility to manage for a diversity of wildlife species, and lose our ability to promote an innovative and much improved culture of wildlife and habitat restoration.

Upland wetland habitats

While the OSM document does not address this specifically, we would like to see mine reclamation rules that provide the most flexibility in creating and maintaining high elevation upland wetland areas comprised of ponds, bogs, and water holes. While a landowner may want a pond capable of supporting fish, we are also interested in creating wet bog-type habitats that can be colonized by wetland plants, amphibians, and other wetland dependant species. The beauty of these habitat types is that all man needs to provide is the water. The wetland plants and wildlife will colonize a site on their own. High elevation water holes can be important habitat components for elk, deer, turkeys, many birds, bats, and other species.

Conclusion

The AWF is looking forward to working with the Office of Surface Mining Reclamation and Enforcement, the coal industry and other partners in seeking ecological restoration solutions for surface mined lands. Here are some bullet points as to what we believe needs to be done and what we are working to accomplish.

- Through a literature review being conducted by the University of Tennessee, we are compiling all the scientific information that can be found regarding upland wildlife response to reclaimed mines in the eastern United States.
- We are seeking funding to gather human dimensions data from the residents of the coalfields of Kentucky, Virginia and West Virginia to learn more about the wildlife and habitat restoration they would like to see on mines in their neighborhoods.
- With this information, and with the Appalachian state wildlife agencies' State Wildlife Grant Action Plans, we want to develop a landscape default template for choosing a wildlife habitat objective when the landowner has no preference.
- We offer technical assistance to the mining industry and to landowners to help them design mine reclamation plans to meet their objectives.
- We will be working with OSM and ARRI to ensure that wildlife ecology and habitat needs are a high priority in that initiative.
- As we help implement wildlife habitat reclamation plans we want to follow up with long term monitoring and research to gather data needed for adaptive management and continuous improvement of reclamation techniques.

Thank you for this opportunity to comment.