

## **Text of letter to President Obama**

March 31, 2010

The President  
The White House  
1600 Pennsylvania Ave, N.W.  
Washington, D.C. 20500

Dear Mr. President,

Western Counties Alliance is a coalition of rural western public lands counties that are jointly working to make federal public lands policies more responsive to local, state and national priorities and to the general public interest. We are urging you to evaluate and demonstrate an innovative approach to managing the public rangelands of the West in ways that can sequester a significant portion of the current U.S. CO<sub>2</sub> emissions while at the same time provide a number of substantial economic and environmental benefits. This approach is both more efficient and more cost effective than the other strategies the federal government is currently pursuing to capture and sequester carbon and could be quickly and widely implemented.

Our suggested approach combines proven rangeland management techniques and recent scientific research findings that have greatly increased our understanding of the way plants sequester carbon in soils. This research shows that the actual potential for carbon sequestration in soils is far greater than had been previously thought. It is now clear that the several hundred million acres of public rangelands in the West could easily be managed to function as a highly efficient “carbon sink” and at the same time generate significant environmental and economic benefits as a result of improved rangeland health.

The realistic potential of what we are suggesting is so large that we think that adopting this management approach could relatively easily and quickly sequester the federal government’s total annual “carbon footprint” and do so at no net cost to the taxpayers. This would be even more possible if the federal government meets the goal you have set of reducing CO<sub>2</sub> emissions by 28% by 2020. In fact, the approach we suggest may be a more cost effective way to achieve at least a portion of this federal government CO<sub>2</sub> emission reduction target than some of the ways that the departments and agencies are now considering to meet it.

In making these projections we rely heavily on the pioneering efforts underway in Australia to refine this approach and demonstrate its potential. One of the foremost Australian researchers in this area, Dr. Christine Jones, is now able to project that a 1% increase in the carbon content of the agricultural soils of that country (a category that includes rangelands and comprises about 60% of the continent’s total land area) could sequester all of the “legacy carbon” released into

the environment by the burning of fossil fuels since the beginning of the Industrial Revolution. Australians are routinely achieving carbon sequestration rates considerably greater than this, in many cases approaching 2% increased soil carbon content, in just 3 to 5 years.

Dr. Jones also estimates that increasing the carbon content of just 2% of Australia's agricultural soils by only ½% could sequester the country's entire yearly CO<sub>2</sub> emissions, which currently are one of the highest per capita in the world. Evaluating the potential of this approach becomes especially significant because adopting it worldwide could quickly and dramatically reduce the current atmospheric CO<sub>2</sub> levels, not merely slow the increase, which is all that is possible with most of the other approaches being considered in this country and elsewhere. Since about one-third of the world's land surface is grasslands, this approach alone could resolve all the concerns about the build up of CO<sub>2</sub> in the atmosphere.

The key to understanding how such large amounts of carbon can be sequestered in grassland soils is recognizing that the growth characteristics of grasses make them more efficient at sequestering carbon than trees or shrubs. Grass species around the world have evolved not only to withstand periodic removal of at least some of the plants' leaves but to actually benefit from it. This removal can be done through the natural processes of animal grazing or fire or by mechanical means. When the tops of grasses are trimmed back, the plant reabsorbs some of its root system to generate the regrowth of its leaves, leaving dead roots in the soil. Then, as these leaves regrow, it also regenerates its root system, which can account for half or two-thirds of the plant's biomass, a much higher proportion of roots to top than trees or shrubs. Each time this process of root growth, dieback and regrowth occurs, it "pulses" carbon into the soil, sequestering much of it.

While this basic process has long been well understood, the recent research findings reveal that this pulsing of carbon can take place much deeper into the soil horizon than had been previously understood and that a large portion of this carbon is sequestered in a much more stable form than had been previously thought. In fact, we now know that it can remain locked in the soil for centuries. The result is that the potential for soil sequestration of carbon must be revised to reflect this new research and is dramatically higher than previously calculated.

Because only healthy functioning rangelands can effectively and efficiently sequester carbon in their soils, the key to the approach we are suggesting is improving rangeland health. In addition to sequestering carbon, improving rangeland health will also produce other economic and environmental benefits. These include increasing the amount of forage for wildlife and livestock, improving wildlife habitat, increasing biodiversity, improving water retention and utilization efficiency, reducing soil erosion and improving watershed health generally. Of particular interest to Western Counties Alliance are the direct economic and environmental benefits from increasing forage for wildlife and livestock and improving watersheds.

Yet because of past and current misguided and unsound federal grazing and land management policies, much of the public rangelands of the West are far less healthy than they could and should be. The consequence is that these degraded rangelands are not only not helping to significantly reduce atmospheric CO<sub>2</sub> loading, but in too many cases, they are actually

contributing to it. This is because the natural processes of bacterial/fungal decay in degraded sites volatilize carbon already in these soils. This carbon is not being significantly replaced at the same time in these soils and cannot be replaced without human intervention to restore proper functioning.

Just as there are environmental and economic benefits that flow from healthy functioning rangelands, these degraded and unhealthy rangelands inflict environmental and economic costs. These include greater danger of rangeland and forest fires, loss of wildlife habitat and biodiversity, damaged watersheds, reduced forage for wildlife and livestock, the spread of invasive plant species, reduced water retention and utilization efficiency and others. All of these are the unfortunate result of some of the current federal land management decisions and policies.

The only way to restore and maintain healthy functioning western rangelands is through the natural process of grass growth, trimming and regrowth. It is impractical in most cases on these lands to employ mechanical methods to accomplish this. Use of fire, a natural alternative, not only adds to air pollution but also carries with it the risk of planned controlled burns becoming uncontrolled wildland fires with all the damage that often results. Fortunately, the third alternative, livestock grazing and the resulting managed animal impacts, is the safest and most practical way to jumpstart the process of restoring healthy functioning rangelands and maintaining them once they have improved. Most researchers recognize that well-managed livestock supply important ecosystem services. Managed animal impacts are also the alternative that can result in the greatest sequestration of carbon and produce the greatest number of environmental and economic benefits at the same time.

Because livestock are already being grazed on the public lands, the “tools” to manage these rangelands for maximum carbon sequestration and the other associated benefits are already in place and available. It is for this reason we can estimate with considerable confidence that the approach we are recommending to sequestering carbon on federally managed rangelands can be accomplished at no net cost to the taxpayer.

Fortunately, if there were the administrative commitment to do so, existing federal grazing and land management policies and regulations are flexible enough to permit the landscape scale demonstration projects that would be necessary to test the actual carbon sequestration potential of the approach we are recommending. These demonstration projects also could be initiated quickly. There can be no question that in addition to sequestering more carbon, the approach we are recommending will dramatically improve federal rangelands in the variety of ways we have outlined because these same techniques have been widely demonstrated and documented on private rangelands in this country. The only thing to be precisely determined is the rate of long term carbon sequestration that will occur on locations like these. In short, there are multiple benefits and no downsides to doing so.

The primary interest of Western Counties Alliance is the many associated economic and environmental benefits that would also result from managing federal rangelands for maximum carbon sequestration. But it is also clear to us that there would be significant public benefits from applying it to private agricultural lands in the U.S. as well. Again, the pioneering work in

Australia in this area has demonstrated that carbon sequestration can be even more effective on these lands and can be highly profitable for the landowner as well. The reason is that there is much greater potential for sequestering carbon in the soils of irrigated lands in the West or those in the Midwest and the East.

We also think that adopting this approach to soil sequestration of carbon on a global scale would likely make the current controversy over climate change science largely irrelevant. It is clear that much of the intensity of the debate over the science stems from whether it is solid enough to justify the costs to individuals and the economy from implementing a cap and trade system, imposing higher energy taxes, or adopting any of the various other options being considered. We are not aware, however, of anyone who is opposed to the simple objective of reducing atmospheric CO<sub>2</sub> levels. The approach we are suggesting would satisfy both sides in this debate. Vast amounts of carbon can be sequestered in soil in the U.S. and around the world at very little or no net cost to the economy because it is actually profitable for the landowner to adopt these practices. And, of course, there would be additional environmental and economic benefits as well which would more than justify whatever small costs there may be. Consequently, the cost concerns of those on one side of the debate would be allayed. At the same time, substantial amounts of carbon would be sequestered, satisfying those concerned about increasing atmospheric CO<sub>2</sub> levels.

An additional benefit would be that the U.S., or, for that matter, any other country that employs this approach, could largely achieve our CO<sub>2</sub> emissions reduction goals entirely by actions that can be taken domestically. This would reduce the negative impact on the U.S. balance of payments deficit that would otherwise occur if carbon offsets were purchased in other countries. Of course it would also mean that we would enjoy the additional environmental and economic benefits that would result here at home.

All things considered, we think that there is no other approach, including the ones being pursued by your recently announced Interagency Task Force on Carbon Capture and Storage, that has as much potential for rapid and efficient carbon sequestration at such a low cost and with so many associated environmental and economic benefits as the one we are proposing here. Determining its true potential through demonstration projects should be the highest priority for the federal government.

We are attaching two items that will provide additional background on this approach. One is a recent *Range Magazine* article by Steve Rich, who is the director of the Western Counties Alliance Ranching and Rangeland Revitalization Project. It provides a good overview of the potential for applying this approach to federal rangelands and the benefits that would result. The second is a presentation to the Victoria Parliament by Dr. Christine Jones, who, as we have mentioned, is one of the leading Australian scientists working in this area. It summarizes her research findings and extensive on the ground experience and outlines how they could be applied to improve agricultural productivity while also sequestering carbon.

We will, of course, be happy to further elaborate on the ideas and conclusions we outline here with anyone on your staff or in any department or agency you may designate.

Sincerely,

Mark O. Walsh  
Executive Director

Attachments

cc: Agricultural Secretary Vilsack  
Energy Secretary Chu  
Interior Secretary Salazar  
EPA Administrator Jackson  
CEQ Chair Sutley