

**Written Testimony of Bill Crapser, Wyoming State Forester
On behalf of the Wyoming Forestry Division and
the National Association of State Foresters
Submitted to the Senate Committee on Energy and Natural Resources
Legislative Hearing October 21st, 2021**

Thank you, Chairman Manchin, Ranking Member Barrasso, and members of the committee for holding this hearing today and for the opportunity to testify on behalf of the Wyoming Forestry Division and the National Association of State Foresters (NASF). My name is Bill Crapser and I am the Wyoming State Forester and present member of NASF. I'm pleased to provide written testimony to the Senate Committee on Energy and Natural Resources regarding the America's Revegetation and Carbon Sequestration (ARCS) Act and other related legislation.

America's trees and forests are a strategic national resource with vast potential as solutions for climate change, public health, and economic challenges. Active forest management maximizes the carbon benefits of forests and is vital to keeping forested landscapes working for us as carbon sinks, instead of carbon emitters.

Our nation's forests and rangelands, face many serious challenges to their health and viability, including catastrophic wildfire and insect and disease outbreaks. This bipartisan legislation will go a long way to help land managers address these challenges and capitalize on existing opportunities. The ARCS Act will strengthen our forests and rangelands through thoughtful and coordinated afforestation and reforestation efforts, expanded opportunities for wildfire mitigation projects, and responsible timber salvage. NASF is encouraged by the introduction of the bipartisan ARCS Act and extends its thanks to Senators Manchin and Barrasso for their continued leadership on forestry legislation. We look forward to working with our federal partners to implement this legislation.

America's Revegetation and Carbon Sequestration (ARCS) Act

Section 201 of the bill would establish a carbon credit program on National Forest System lands managed by the National Forest Foundation that would allow non-federal entities to purchase carbon credits in voluntary carbon markets. Credits produced on federal forest lands would provide funding for the Forest Service to implement projects for continued carbon sequestration.

NASF supports this innovative program to help ensure our national forests are able to deliver a balanced set of economic, environmental, and social benefits. Only by accelerating the scope, scale, and pace of federal forest management (consistent with the approved management plans for each national forest) will we be able to restore these lands to a more sustainable, resilient condition.

Section 202 of the bill would require the Forest Service to develop land management plan amendments addressing post-disturbance management options following high-tree mortality events, such as hurricanes and wildfire, to include salvage logging and reforestation activities. A

lack of budget support for vegetation management and restoration programs, as well as a lack of alignment in views about appropriate management and disturbance response among stakeholders, limits utilization of salvageable trees and reforestation efforts following catastrophic wildfire events. NASF supports expanding authorities to conduct timber salvage and reforestation operations following disturbances such as hurricanes and wildfires.

Section 402 directs the Forest Service, through its Forest Inventory and Analysis (FIA) program, to continue using remote sensing technologies to assess regional carbon stocks. With this information, policy makers will be better able to compare the consequences of different forest policy options on carbon sequestration and storage.

FIA provides crucial information to federal and state forestry agencies, industry, academic, and conservation organizations on a wide range of forestry-related topics. Increasingly, FIA is relied on to provide data on the state of the nation's largest carbon sink—our forests—making it an essential component of decisions regarding climate change mitigation and adaptation strategy. However, the demands for information on forest carbon are becoming more varied and at scales that are problematic to meet with the current design and capabilities of the program.

Additional statistical research capacity is required to develop and employ the complex cutting-edge statistical imputation and estimation procedures required to produce the level of accuracy that clients are demanding today for smaller geographic areas. The additional analytical capacity will focus research efforts to improve best applications and integration of remote sensing technologies within the FIA program and develop technologies to reduce costs and make it easier to measure and monitor forest carbon (especially for forest inventories and verification). Using imagery from advanced technologies, especially remote sensing platforms would improve products for decision making by policy makers and managers and enable forest owner participation in carbon crediting opportunities.

Sections 302 and 303 support working forests and forestland owners by advancing markets for sustainable wood products like mass timber. Science-based, sustainable forest management can provide quantifiable increases in carbon stocks by reducing wildfire, insect, and disease risks. Carbon sequestered in harvested trees is also maintained in wood products, which can be used in place of more energy-intensive building materials, such as steel, plastic, and concrete, and reduce overall greenhouse gas (GHG) emissions.

Markets for wood provide landowners with a source of revenue and are critical to maintaining the health and sustainability of forests in the United States. They enable the sustainable, carefully planned harvest of trees to optimize stand density and create age class and species diversity: characteristics that are critically important to enhancing wildlife habitat, forest resilience, and balanced harvest cycles.

Section 203 of the bill directs the Food and Drug Administration, in consultation with USDA and in coordination with states, to establish a pilot program for feeding biochar to livestock. The Nebraska Forest Service conducted a successful pilot study which demonstrated the benefits of providing biochar as a feed supplement to cattle in achieving reduced methane emissions and increased animal productivity. Although biochar has not yet been approved by the Food and Drug

Administration (FDA) for animal feeding, the initial research shows potential as a methane mitigation strategy in both growing and finishing diets for cattle. This study demonstrates an example of an innovative use of a forest product that has huge potential benefits to agriculture, particularly cattle producers. Biochar has shown to be beneficial in many areas of agriculture, including nutrient capture in livestock manure.

Section 102 of the bill would establish a national revegetation task force to develop and implement a 10-year comprehensive revegetation strategy which would include an assessment of tree nursery capacity. State operated tree seedling nurseries remain an important source of seedlings for national reforestation efforts. A substantial increase in tree planting would necessitate careful planning, including climate-smart species selection. NASF supports this policy as we look to increase reforestation efforts nationally and develop a plan to increase tree nursery capacity.

Section 105 of the bill would add tree planting and maintenance to the Job Corps' curriculum and establish a new grant program at the Department of Energy for tree planting activities aimed at reducing residential energy consumption. Urban trees and forests help mitigate the urban heat-island effect and reduce cooling costs by providing shade to buildings and street surfaces. Improving and investing in workforce development and training programs that link underserved urban populations with urban forestry careers is a priority issue for NASF and is identified as a goal in the Forest Climate Working Group's (FCWG) [Policy Platform for the 117th Congress](#).

National Prescribed Fire Act

There is an immediate need for the return of low intensity fire to our landscapes. Prescribed fire is used to reduce dangerous wildfire fuel loads and promote resiliency in our forests by simulating natural disturbance. The appropriate use of prescribed fire makes our forests and communities more resilient to natural and necessary fire cycles. Increasing the use of prescribed burning depends on partnerships among the federal and state environmental protection agencies and a shared understanding that limited smoke emissions from prescribed fire pose less risk to human health than mega-emissions from uncontrolled wildfire. NASF supports the National Prescribed Fire Act, which offers a legislative solution that will allow state foresters and other land managers to increase their use of prescribed fire to improve forest health, mitigate wildfire damages, and prevent mega smoke emissions from wildfires.

I appreciate the opportunity to testify today on behalf of the Wyoming Forestry Division and NASF. We stand ready to assist in supporting legislative solutions that bolster the social, economic, and ecological benefits of our nation's forests.