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H.R. 2119, "NATIONAL HISTORIC FORESTS ACT OF 2001"

LEGISLATIVE HEARING

BEFORE THE

SUBCOMMITTEE ON FORESTS AND FOREST HEALTH

OF THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

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H.R. 2119, "NATIONAL HISTORIC FORESTS ACT OF 2001"

Tuesday, June 19, 2001
U.S. House of Representatives
Subcommittee on Forests and Forest Health
Committee on Resources
Washington, DC

The Subcommittee met, pursuant to notice, at 3 p.m., in room 1334, Longworth House Office Building, Hon. Scott McInnis [Chairman of the Subcommittee] presiding.H.R. 2119

Mr. MCINNIS. The Committee will come to order. I would like to thank my friend and colleague, Congressman Simpson. Congressman, we are going to proceed rather quickly into your statement, which means I will go ahead and just submit my statement for the record, because I want to allow you plenty of time for your opening statement and introduction of your bill.

So, Congressman, as you know, Mr. Inslee is not here yet. When he is here, I will give him an opportunity to make an opening statement. I will go ahead and submit mine for the record, but waive it and yield the time to you.

Mr. Simpson?

[The prepared statement of Mr. McInnis follows:]

Statement of The Honorable Scott McInnis, Chairman, Subcommittee on Forests and Forest Health

I would like to thank my friend and colleague Congressman Simpson, for his work on the National Historic Forests Act of 2001. My opening remarks will be very brief to allow Mr. Simpson more time for his statement.

Our native forests are in peril. The historic forests that greeted the Spanish conquistadors, the American colonists, the Lewis and Clark expedition, and the many trappers, traders and other early explorers of our country are fast disappearing. As arguments, appeals and lawsuits over how to manage federal forests drag on, these forests change without waiting for us to act. As we've heard in other hearings before this Subcommittee this year, one hundred years of wildfire suppression—necessary as it has been—has had unintended negative consequences across the American landscape.

In my opinion, there are two compelling reasons to support this legislation. One is that without a focused, deliberate effort to restore and maintain these historic forests, we will lose them forever. The other is that everyone I've talked to on both sides of the aisle supports the goal of keeping some parts of our National Forests looking like they did for thousands of years. Who would not want our children, grandchildren and descendants over the coming centuries to be able to walk among native forests and know the story of how those forests came to be? As a parent, I find it outrageous that anyone would oppose this goal.

I'm pleased to welcome our witnesses today. I'm especially glad that Dr. Thomas Bonnicksen from Texas A&M University could be here. Dr. Bonnicksen's research

for more than 30 years on restoring and sustaining America's native forests, documented in his book [HOLD BOOK UP] "America's Ancient Forests", provides a strong foundation for this legislation. I'm also very pleased to have Mr. John Barnett, Chairman of the Cowlitz Indian Tribe, here today from the State of Washington. We also welcome Mr. Steve Holmer of the American Lands Alliance and Ms. Sally Collins of the Forest Service and look forward to their testimony.

STATEMENT OF THE HON. MICHAEL SIMPSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

Mr. SIMPSON. Thank you, Mr. Chairman and thank you for scheduling this important hearing on H.R. 2119, The National Historic Forests Act. This legislation is intended to initiate a dialogue, and I repeat, initiate a dialogue concerning the importance of restoring and protecting our native forests. Recent catastrophic wildfire forest health concerns and native forests that are being lost or substantially altered provide ample evidence for the need to have this discussion and begin restoring and protecting our historic forests.

I am willing to work with all who have an interest in saving our native forests. This bill is not written in stone. For all intents and purposes, it is a discussion draft, and I look forward to hearing the comments, suggestions or concerns of the panel and of my colleagues relative to this issue.

This common-sense legislation allows for the creation of a National Register of Historic Forests for the purpose of restoring and protecting native forests. Local communities will nominate national forest lands for inclusion in the National Register of Historic Forests. Once the forest lands are placed on the national register, a Committee comprised of State and local officials, forest restoration experts and other stakeholders who have an interest in protecting and restoring the National Historic Forests, will be responsible for drafting a management plan and guiding the restoration and maintenance of the National Historic Forests.

More importantly, H.R. 2119 allows local communities to reclaim and preserve their ecological and cultural heritage while embracing and utilizing local knowledge and talent. These are people who lived and worked in and around our national forests and they have a vested interest in restoring and maintaining native forest conditions.

People may say we need to study the issue more. We need more information. We do not know enough to act. However, the reality is that not doing anything poses considerable risk. For instance, the U.S. Forest Service and the General Accounting Office estimate that more than 72 million acres of our national forest lands are at risk of uncharacteristic wildfires. That is unacceptable. We must restore our native forests to a more healthy and natural state.

Before coming to Congress, I was a dentist. If I had a patient with tooth decay and I were to say let's wait a few years to fix your tooth when we have more information and more knowledge than we have today concerning the possible treatments in tooth decay—I would not do that. I would treat my patient immediately. If I did not, my patient would surely lose his or her tooth and I would lose my license. Forestry, like dentistry, is an ever evolving and growing science. We know a lot more now than we did in the past. Sure,

we still have more to learn. There is always more research to be done and more data to collect and analyze. However, forestry, in its present state, is a sophisticated science. Our foresters have a scientific knowledge and the tools they need to begin restoring our native forests now.

In the West, we are losing our pine forests. Our national forest lands experience high tree density and abnormally high levels of vegetation. Our forests are choked full of trees and brush that will ultimately lead to irreparable harm and forced mortality. In addition, our forests suffer from invasive non-native species and profound structural changes, which result in a lack of forest diversity. These unnatural conditions lead to loss of nutrients, susceptibility to disease and insect infestation and catastrophic fire. In turn, loss of native forest conditions leads to loss of critical habitat for threatened and endangered species.

By not acting, we will lose our native forests. This is not a proposition I willing to accept. Mr. Chairman, I believe this is one of the potentially most important bills to come before Congress in a number of years, that will allow us to address this issue of our native forests and how we can restore them to a healthy condition. I look forward to working with the Committee, and as I emphasized in my testimony, this is a working draft in which I hope members from both sides of the isle and all stakeholders are willing to sit down and talk about the goal of restoring our historic forests and how we might achieve that. I thank the Chairman for holding this hearing.

[The prepared statement of Mr. Simpson follows:]

Statement of The Honorable Mike Simpson, a Representative in Congress from the State of Idaho

Mr. Chairman:

Thank you for scheduling this important hearing on H.R. 2119, the National Historic Forests Act.

This legislation is intended to initiate a dialogue concerning the importance of restoring and protecting our native forests. Recent catastrophic wildfires, forest health concerns, and native forests that are being lost or substantially altered provide ample evidence for the need to have this discussion and begin restoring and protecting our historic forests. I am willing to work with all who have an interest in saving our native forests. This bill is not written in stone. For all intents and purposes it is a discussion draft, and I look forward to hearing the comments, suggestions, and concerns of the panel and of my colleagues.

This common sense legislation allows for the creation of a national register of historic forests for the purpose of restoring and protecting native forests. Local communities will nominate national forest lands for inclusion in the national register of historic forests. Once the forest lands are placed on the national register, a committee comprised of state and local officials, forest restoration experts, and other stakeholders who have an interest in protecting and restoring national historic forests will be responsible for drafting a management plan and guiding the restoration and maintenance of the national historic forest.

More importantly, H.R. 2119 allows local communities to reclaim and preserve their ecological and cultural heritage, while embracing and utilizing local knowledge and talent. These are people who have lived and worked in and around our national forests, and they have a vested interest in restoring and maintaining native forest conditions.

People will say: we need to study the issue more; we need more information; we do not know enough to act. However, the reality is that not doing anything poses considerable risks. For instance, the U.S. Forest Service and the General Accounting Office estimate that more than 72 million acres of national forest land are at risk of uncharacteristic wildfire. That is unacceptable. We must restore our native forests to a more healthy and natural state.

Before coming to Congress I was a dentist. If I had a patient with tooth decay, would I say "let's wait a few years to fix your tooth when we have more information and knowledge, and we will, concerning tooth decay and possible treatments?" No. I would treat my patient immediately. If I did not, my patient would surely lose his or her tooth, and I would lose my license.

Forestry, like dentistry, is an ever evolving and growing science. We know a lot more now, than we knew in the past. Sure, we still have more to learn. There is always more research to be done, more data to collect and analyze. However, forestry in its present state is a sophisticated science. Our foresters have the scientific knowledge and tools they need to begin restoring our native forests, now.

In the west, we are losing our pine forests. Our national forest lands experience high tree density and abnormally high levels of vegetation. Our forests are choked full of trees and brush that will ultimately lead to irreparable harm and forest mortality. In addition, our forests suffer from invasive non-native species and profound structural changes, which result in a lack of forest diversity. These unnatural conditions lead to loss of nutrients, susceptibility to disease and insect infestation, and catastrophic fire. In turn, loss of native forest conditions leads to loss of critical habitat for threatened and endangered species.

By not acting, we will lose our native forests. This is not a proposition I am willing to accept.

Mr. MCINNIS. Okay, Mr. Simpson, I appreciate your statement. The hearing record will be open for 10 days for additional responses. Let's move on to our panels. I would like to now introduce our first panel, I am getting a little confusion here. Just a moment. My apologies to the first panel. I would like to introduce the first panel. First, we have Dr. Thomas Bonnicksen, and apparently, Doctor, this is your book and it is well-acknowledged in the field out there. You have researched restoring and sustaining America's native forests for more than 30 years, and you have documented your findings in this book. The book is widely read by the staffs up here in regard to forest and forest management. Apparently, it is well-done document. As I understand, it provides a strong foundation for your bill, Mr. Simpson—Mr. John Barnett, Chairman of the Cowlitz Indian Tribe, State of Washington, CEO and owner of Cowlitz Timber, Inc.; and Mr. Steve Holmer, Campaign Coordinator for the American Lands Alliance.

I want to remind our witnesses, under the rules of this specific Committee, you are allotted 5 minutes. You will have a timer that you see, that sits in front of you, that will give a warning when you are in the yellow zone. As a courtesy to other witnesses, I would expect you to stop when the red light comes on. I would now like to recognize my colleague, Congressman Baird, who every time I see his designation as Democrat from Washington, I have to remind him he used to be a Republican from Colorado. I know the Colorado part is right. I am not sure the Republican part is. Anyway, Mr. Baird, I know that you would like to make the introduction. You have asked for a special request and the chair recognizes you for that introduction.

Mr. BAIRD. I thank the chair very much. It is a real privilege to be here. I thank you for the invitation. John Barnett is, as you mentioned, the chair of the Cowlitz Tribe and CEO and owner of Cowlitz Timber. John has a long interest in forest management and the forest products industry in Washington State and elsewhere. He has been a strong leader of his tribe and active in timber issues, and I am pleased to welcome John back here. The Cowlitz people are very, very close to the final step of tribal recognition.

I wish them all the success in that effort and look forward to John's testimony, as well.

I happen to also know Steve Holmer, and I am glad to see him here today, and look forward to his commentary. He has been very active in forest issues, as well.

Thank you, Mr. Chairman.

Mr. MCINNIS. Mr. Holmer, are you going to take the table and testify? That is where you have to testify from. Dr. Bonnicksen, I am going to go ahead and proceed with you. You may proceed as you wish.

STATEMENT OF THOMAS BONNICKSEN, PH.D, PROFESSOR, DEPARTMENT OF FOREST SCIENCE, TEXAS A&M UNIVERSITY

Mr. BONNICKSEN. Well, I would like to say in the beginning that we should all be grateful to Congressman Simpson for introducing the National Historic Forest Act. I think this will be among the most important land use laws that we have ever enacted, since the beginning of the public domain in 1781. That is, of course, if Congress has the wisdom and foresight to actually carry out Congressman Simpson's vision for America's forest, which is to restore our heritage for this and future generations.

There is an urgent need to restore our native forests. What European explorers originally saw were forests of amazing diversity, immense trees, and awe-inspiring vastness. If I can just quote briefly from Verrazano, an Italian navigator who sailed along the East Coast in 1524, he summarized what most explorers saw. He reported, "the spacious land, full of the largest forests, some thin and some dense, clothed with various sorts of trees, with as much beauty and delectable appearance as it would be possible to express."

These were truly magnificent forests that we inherited when we came to this land. They occupied about 45 percent of the lower 48 States, but since that time we have lost 12 percent of our native forests to cities and farms. The remaining forests are in a serious state of decline—crumbling, battered, and burnt. To give you some examples, in the East, the White Pine forests that so impressed the colonists with their gigantic trees that they saw as possible sources of masts—in fact, they called them Mast Pine—occupied terraces along rivers for miles; magnificent forests that no longer exist, and the recovery of forests in the Northeast is not recovering these white pine forests. On the contrary, what we are getting is primarily maple forests. Oak-chestnut is all but extinct as a forest-type because of the chestnut blight, but we think genetically that in a very few years, we will bring it back. That will give us an opportunity to recover the oak-chestnut forests of the East.

In the Southeast, we had 90 million acres of Long-leaf Pine. The conquistadors, William Barrett and others have waxed philosophical about the beauty and diversity of this forest. In fact, it was the most diverse forest, in terms of plant life, of any forest in North America when we found it. It is all but gone, almost all 90 million acres. White and Red Pine are in the same situation in the Lake States. In the Midwest, we know how little of the oak-savanna is left, a place so beautiful that even hardened soldiers waxed philosophical in their journals when they saw it.

Can you imagine oaks in an immense grassland, with bison and elk and deer, and all the other wildlife in abundance—long gone, but not forgotten and not beyond restoration? The Inland West—we know Ponderosa Pine is in a very sorry state. In particular, in the Bitterroot Valley, last year, we lost over 100,000 acres of Ponderosa Pine forests. This was the forest, historically, that was first seen by Lewis and Clark and described for the first time in a written account as a historic forest. Ponderosa Pine, in that area, could have been restored quickly and easily, because most of the trees were in a state that would easily make that possible.

Aspen—we are losing it throughout the West. On the Pacific Coast, the oak woodlands and the valley of California, the Great Central Valley, are almost gone, the valley-oak woodlands. The ones on the hillsides are disappearing quickly as they are converted into brush fields or decimated by disease. The mixed conifer forests in the Sierra Nevadas are in a similar plight, their densities are astronomical, and now we have a plan by the Forest Service for the Sierra Nevadas that would take what was 22 percent of that original native forest, that was very diverse and all age classes were represented—22 percent of it was an old forest, historically. The plan the Forest Service has for that forest is to increase that to 64 percent in 10 decades. The diagram illustrating that is in my written testimony.

That is unsustainable. That means fires will be of immense size in the future. It is a forest that never existed in the past and could never exist in the future, if it had not been created by that plan. The douglas fir forests in the Pacific Northwest are gradually disappearing as each tree falls and is replaced by western hemlock, as you will hear from John Barnett.

What should we restore? That is always the question. Well, we should restore forests that resemble those that were first seen by the first explorers; the conquistadors in the South, the trappers in the West, the fur traders and Jesuit priests in the North, the colonists in the East. They were the ones who first saw these forests. They were the ones who first described them, and the descriptions are marvelous to read. Why should we choose that period? Well, that represents 18,000 years of adaptation, since the Ice Age. No forest in North America could be more diverse and beautiful than the ones that existed at that time. Of course, that was also a period when the climate was similar to that of today, and ultimately, it is the only forest we can restore because it is the only forest we can document.

Mr. MCINNIS. Doctor, I am going to have to ask you to wrap-up. I let you go a minute over time, but as a courtesy to the others—

Mr. BONNICKSEN. Thank you.

[The prepared statement of Mr. Bonnicksen follows:]

Statement of Dr. Thomas M. Bonnicksen, Professor of Forest Science, Texas A&M University

INTRODUCTION

My name is Dr. Thomas M. Bonnicksen. I am a professor in the Department of Forest Science at Texas A&M University specializing in restoration forestry. I have conducted research on restoring and sustaining America's native forests for more than thirty years. I have written over one hundred publications and I authored the book titled America's Ancient Forests: from the Ice Age to the Age of Discovery

(Copyright January 2000, John Wiley & Sons, Inc., 594 pages). The book documents the history of North America's native forests. It gives special emphasis to the way our native forests appeared at the time of European settlement and the role Native American's played in their development. Additional biographical information is available in the biographical summary at the end of this document.

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THE NEED TO RESTORE AMERICA'S HISTORIC NATIVE FORESTS

What the first European explorers saw were forests of amazing diversity and awe-inspiring vastness. They felt especially drawn to trees of immense size and great age that no longer existed in Europe. Such trees grew everywhere in North America. Giovanni da Verrazzano, an Italian navigator who sailed along the East Coast in 1524, summarized what European explorers reported when they saw America's native forests. "The spacious land," he noted in his journal, "full of the largest forests, some thin and some dense, clothed with various sorts of trees, with as much beauty and delectable appearance as it would be possible to express." When Verrazzano wrote these words, native forests covered 45% of the lower 48 states. Since that time, about 12% of our native forests have been scraped away for cities and farms. Today, few of our remaining native forests still resemble their former glory and most of these are crumbling, battered, and burnt.

The Density Problem

In the Southwest, ponderosa pine forests like those that burned at Los Alamos are 31 times denser than the original forests. A comparable change occurred in mixed-conifer forests in the

San Bernardino Mountains of southern California where density increased by 74 percent in 60 years. Pockets of dense second-growth forest also cover nearly one half of Redwood National Park. Some of these forests have reached the astronomically high densities of 2,000 to 20,000 trees per acre. Under such crowded conditions, a forest will stagnate for many decades or even centuries. This has detrimental effects on wildlife and other plants, and it makes a forest more susceptible to wildfire, insects, and disease.

The Wildfire Problem

Frequent fires set by Native Americans and lightning used to keep native forests open, but now they are so thick that any fire has the potential for turning a forest into a colossal furnace. Unlike the original native forests, fires also can spread freely across vast areas because trees have grown to similar sizes, and there are fewer patches of young trees, meadows, and clearings to slow the flames.

The mammoth wildfires that scorched nearly half of Yellowstone National Park during the summer of 1988 were significantly larger than any fire that occurred there in the past 350 years. One reason the fires were so large is that multilayered older forest covered nearly 65% of the landscape. Historically, such older forests only covered 30% of the landscape. Furthermore, wildfires blackened 1.5 million acres and cost nearly $1 billion in eastern Oregon, eastern Washington, Idaho, Montana, and portions of Utah and Nevada during the summer of 1994. Nationwide, more than 9,000 homes were destroyed by wildfires in the previous decade. The fires of 2000 also burned over 6.9 million acres, which is three times the ten-year average. These fires also destroyed over 200,000 acres of ponderosa pine forest in the Bitterroot Mountains of Montana that still had some of the characteristics of a historic forest. Lewis and Clark wrote the first description of a native ponderosa pine forest in the Bitterroots, which further magnified the loss. In addition, damages caused by the Los Alamos fire in New Mexico exceeded $1 billion. That fire also destroyed 260 homes and 1500 archaeological sites. Most of these fires burned hotter than would have been the case in the original native forests.

Native Forests in Decline

In the East, even though trees are becoming denser, stately forests of white pine no longer cover large areas, and few trees reach the great size of those that existed

at the time of settlement. The oak-chestnut forest is nearly extinct. Sugar maple and red maple also are taking over northern and eastern hardwood forests and replacing oak - our national tree. The vast longleaf pine savannas that spread over much of the South are nearly gone as well. This loss is especially tragic because the historic longleaf pine forest was not only beautiful but it also had the highest number of plant species of any forest in North America. In the Midwest, we have lost most of the oak-hickory savanna that once fringed the Great Plains and held early travelers spellbound because of its beauty and richness of wildlife.

In the Inland West, juniper is spreading within pinon juniper woodlands and replacing grasslands. Similarly, once open stately groves of ponderosa pine are becoming so thick with small trees that grass and wildflowers can no longer grow within the forest. Because of increases in the density of pine and other conifers, aspen forests are rapidly disappearing as a distinct forest type throughout their range. In addition, white fir is replacing Douglas-fir forests in the Southwest, and spruce and fir are replacing lodgepole pine and western larch forests in the northern Rocky Mountains.

In California and Oregon, thick forests of short lived and small white fir are replacing what were once open and patchy forests of ponderosa pine, giant sequoia, and other conifers that stood like towers on the mountainsides. This invasion of white fir was unanticipated when Native Americans were removed from these forests in the 19th century and fires were put out. However, the U. S. Forest Service Region 5 plan for Sierra Nevada forests adopted in 2001 actually intends to accelerate this invasion. The Forest Service plan calls for increasing old multilayered forests that covered 12% of the landscape in historic native forests to the unnaturally high level of nearly 64%. Fires will also become less frequent but more severe in these old forests. This will increase the size of patches in the mosaic and reduce the amount of edge and diversity of habitats for wildlife. As a result, many species of plants and animals that live in younger forests will decline in numbers while species that live in dense old forests, such as the California spotted owl, will increase to unnaturally high numbers. Illustrations showing the difference between the historic native forest mosaic and the forest mosaic that is planned for the Sierra Nevada are shown in Figures 1 and 2. Regrettably, these artificially dense old forests will no longer represent the beauty and diversity of the historic native forests. This is a tragic and unnecessary loss of our Nation's natural and cultural heritage.

Brush and conifers are also replacing open oak woodlands that used to spread over vast areas on lower slopes and in valleys in California and Oregon. In California and the Pacific Northwest, some cathedral groves of Douglas-fir are reaching the end of their life expectancy and being replaced by less stately forests of shade tolerant species such as western hemlock. Even the coast redwood forest is likely to dwindle in area as a more shade tolerant forest of hemlock, fir, and bay replaces it.

THE NEED FOR A NEW LAW

There is an urgent need for action. Fire, insects, disease, decay, invasive non-native species, the replacement of pioneer species by shade-tolerant species, and urban development are rapidly destroying America's historic native forests. The physical evidence needed to understand and restore these native forests is being lost as well. We must act now or a vital part of our nation's natural and cultural heritage will be gone forever.

Posterity will include The National Historic Forests Act of 2001 (H.R. 2119) among the most important land use laws that Congress has enacted since the origin of the Public Domain when the original thirteen colonies began ceding their western lands to the central government in 1781. Congress has passed many land use laws since that time. However, none of these laws has addressed restoring the magnificent native forests that European explorers found and described when they arrived in North America. Nor have we used the knowledge of native peoples who helped sustain our native forests. The National Historic Forests Act will help to recover America's forest heritage because it addresses both issues.

Our national parks, which began with Yellowstone in 1872, protect spectacular scenery, natural wonders, historic objects, and wildlife rather than historic landscapes. The Park Service also emphasizes leaving forests and wildlife untouched rather than restoring and sustaining their history. The National Forest System, which began with the Forest Reserve Act of 1891, addresses our society's contemporary need for wood, water, wildlife, recreation, and other goods and services that forests produce. The Forest Service protects historical sites, but they are not the primary goal of management. Bureau of Land Management lands serve similar purposes. The purpose of the National Wildlife Refuge System is narrower, concentrating on wildlife and fisheries, and their habitat. Even the Wilderness Act of 1964

serves current social needs rather than historical purposes by providing relatively untouched landscapes where people can find solitude.

Some laws concentrate on our nation's pre-history and history, but they focus primarily on fossils, archaeological sites, historic buildings, and artifacts rather than historic native landscapes. These include the National Historic Preservation Act of 1966 and the American Antiquities Act of 1906. The latter act even specifies that national monuments must be "confined to the smallest area compatible with proper care and management of the objects to be protected." What is missing from existing laws is an act that restores and sustains the magnificent native forests that European explorers found and described when they arrived in North America.

THE NEED FOR A REFERENCE FOREST

The original native forests that European explorers found in North America provide excellent models for present and future forests because of their beauty, diversity, sustainability, productivity, and abundance of wildlife. Pre–European settlement forests also provide the most scientifically sound references for forest restoration. They were the product of thousands of years of development and adaptation, and they existed during a period when the climate fluctuated in a manner similar to what occurs today. In addition, they can be easily documented using archaeological materials, historical accounts, old photographs, early land surveys, and existing vegetation. These methods can also be used to document the processes that created and sustained native forests. On the other hand, forests from an earlier time cannot be restored because they can only be described in vague terms from pollen and fossils. Even so, we cannot duplicate a historic native forest, but we can approximate it based on a reference forest that provides an achievable goal for restoration.

The first step in restoring a forest is selecting the historical period for the reference forest. A reference forest does not represent a particular point in time. It represents a period of time and the variations in forest structure that were characteristic of that period. The historic period for a reference forest will vary by region because the age of exploration lasted several centuries.

The Spanish conquistadors became the first Europeans to wander deep into America's native forests. Spanish soldiers marched through the vast pine forests of the Southeast and the pinon-juniper woodlands of the Southwest in the 16th century, but they did not see the oak woodlands and towering coast redwoods of California until the 18th century.

English and Dutch and other explorers and colonists stayed close to the eastern seaboard. They only glimpsed the oak-chestnut, eastern white pine, beech-maple, and red spruce-fir forests that graced the colonial landscape in the 15th century. It was not until the 17th and 18th centuries that they documented these historic forests.

French soldiers of fortune, fur traders, and Jesuit priests followed closely behind the colonists. They paddled and trudged their way into the white spruce forest of Canada and Alaska, the Great Lakes pine forests, and the oak-hickory forests and savannas filled with wildlife on the edge of the Great Plains. Exploration began in the 16th century, but like the colonists in the East, most observations of these native forests were recorded in the 17th and 18th centuries.

Lewis and Clark's Corps of Discovery, the fur traders that preceded them and the waves of trappers, scientists, and settlers that followed them, came last. They had a chance to marvel at America's majestic ponderosa pine, lodgepole pine, Pacific Douglas-fir, and giant sequoia forests in the West primarily in the 18th and 19th centuries.

THE NEED FOR RESTORATION STANDARDS

Standards are essential for documenting the reference forest, setting objectives, and judging the success or failure of a forest restoration project. General standards should guide the restoration of native forests at the national level. This is necessary because all native forests share a few timeless qualities. First among these is the patch, which is a relatively uniform group of plants. Second is succession, or the way a patch of forest advances from one stage of development to another after recovering from a disturbance. Third is the shifting mosaic, or the proportions of different stages of development that make up the forest mosaic and the way they shift from place to place in the mosaic as each patch of forest ages. Therefore, the character of the reference forest mosaic is the key to forest restoration.

The general standards should include the relative proportions of patches of vegetation in various stages of development that formed the reference native forest mosaic, and the sizes, shapes, and orientation of patches that reflect the forces that created them. The composition, ages, sizes, and density of plants and standing and fallen dead trees within patches should also be documented. Finally, the composition

of native wildlife that depended on the diversity of habitats in the reference native forest mosaic should be incorporated into the restored forest. Some of the information needed to describe a reference forest is shown in Figure 3.

The details that fit within these general forest restoration standards will depend on what is feasible, desirable, and historically appropriate in particular forests. They must be tailored to an individual forest to provide an ecologically and economically sustainable target for restoration. Ultimately, the goal should be to restore a forest to a condition that resembles the original native forest, simulates the range in proportions of successional stages that characterized the native forest mosaic during the historic period, and that serves society's social and economic needs.

THE NEED TO INCLUDE NATIVE PEOPLES

Europeans seemed surprised to find that most of America's native forests were open rather than dark and dense. They soon realized that Indians used fire to help keep them that way. So, they had little trouble traveling within forests unless they followed streams or crossed marshes where thickets grew, or wandered into piles of trees blown down by strong winds. Even here, travel was sometimes easy because Indians burned trails in the forest, and cleared trees from many floodplains for cornfields and hunting grounds.

The plants and game upon which American Indians depended thrived in patchy forests that included young trees, old trees, meadows, and various other stages of growth. Indians knew this from experience, so they burned forests to keep them patchy. This provided them with an abundance and variety of game and plant foods, as well as many other benefits.

Native Americans were an integral part of America's native forests. The structure of a forest and the forces that shape it work together; they are inseparable and mutually dependent parts of a single whole. Change one part and the other changes. It becomes a different forest. Therefore, the restoration of native forests should ensure that future generations have enduring and living examples of the historic bond that existed between America's native forests and her peoples.

THE NEED FOR COST–EFFECTIVE MANAGEMENT

A forest cannot be preserved because it is alive and continually changes. It must be managed. Therefore, the only way to restore and sustain our native forests is through active or hands-on management at a cost that taxpayers are willing to pay. Reintroduction or control of plant and animal species, planting, precommercial and commercial thinning, grazing, prescribed burning, control or suppression of fire, timber harvesting or, where appropriate and effective, temporary or permanent protection should all be available to a manager who is restoring a historic native forest. Placing restrictions on tools and methods could seriously compromise a restoration project or make the restoration of a native forest impossible. The nature of the tools and techniques used to restore a forest are unimportant. The only thing that matters is providing this and future generations with an enduring legacy of dynamic and sustainable historic native forests.

Prescribed fire would come closer than any tool toward mimicking the effects of the historic Indian and lightning fires that shaped most of America's native forests. However, there are good reasons why it is declining in use rather than expanding. Air quality restrictions are playing an increasing role in restricting prescribed fire. High cost is also a major barrier to its use. Prescribed fire can cost from $75 to $1000 or more an acre. This would be prohibitively expensive for restoring historic native forests throughout the nation, especially since prescribed fire does not generate revenue that could help offset the cost of management. In addition, there are limited periods and opportunities when conditions are appropriate to burn. Prescribed fire is also inherently dangerous. Escaped fire poses a serious hazard to the safety and property of people living near forests. Finally, many of today's forests are much thicker and filled with more dead trees than historic forests. Prescribed fire is ineffective and unsafe in such forests. Moreover, dense piles of fitter now surround large trees in many forests. Even a light prescribed fire produces so much heat in such fuel that it can kill the largest trees by cooking their roots. Such losses would be unacceptable when restoring forests that lack enough old trees to properly represent the historic native forest.

Fortunately, we do not have to rely on prescribed fire to restore America's historic native forests. We have other tools available, although prescribed fire is still an essential tool in many situations. Over several centuries, foresters in Europe and the United States developed a wide range of regeneration techniques that can effectively restore and sustain our native forests. They can be used in ways that do not damage streams and soils, unlike wildfires, and they can even enhance fisheries. Likewise, they can provide openings for shade-intolerant trees, such as Douglas-fir and pine,

and make the openings look like fire created them (Figures 4 and 5 show some of the differences in regeneration methods used in restoration forestry and traditional forestry in a Pacific Douglas-fir forest). These techniques can also restore forests composed of trees that grow in the shade that were sustained by windstorms, such as native beech-maple, and maple-basswood forests. In addition, they can furnish adequate amounts of standing and fallen dead trees to replenish soil nutrients and provide homes for wildlife. They can even help endangered species by restoring the variety of habitats that existed in native forests where they thrived. They can perform these tasks while also reducing visible signs of management to a minimum. In short, we can use a chainsaw or mechanical harvester to sculpt a historic forest from today's forest in the same way that Michelangelo used a hammer and chisel to create beauty from stone.

Whenever it is safe, effective, and ecologically and economically acceptable, management to sustain a restored forest should accommodate the effects of natural disturbances such as wind, lightning fires, and insect and disease infestations. Similarly, Indian tribes should be permitted to conduct traditional land use and management activities that help to restore and sustain a native forest so long as they were part of its history.

Every effort must also be made to reduce the cost of restoration and maintenance. Otherwise, we will not be able to restore enough native forests to fully represent America's unique natural and cultural history. Unlike Michelangelo who sold his art to pay the cost of creating it, we cannot sell a restored historic native forest. However, we can sell wood and other products harvested from the forest when restoring and sustaining it. This would minimize the use of appropriated funds so that we can restore forests on a large scale. It would also provide society with essential goods and services and create much needed jobs in rural communities.

THE NEED FOR LOCAL PARTICIPATION

Local participation in planning and managing historic native forests is essential because no one person or group can fully understand and manage all types of native forests. Each native forest is unique, even though all forests share the mosaic structure. Each native forest developed in a particular place in response to local influences. Even native forests of a particular type can differ enough to warrant a separate plan for their restoration and maintenance. To illustrate, the northern Pacific Douglas-fir forest grows in a wetter climate than the warmer and drier southern part of the forest. Consequently, fires are less frequent and more severe, and patches are larger, in the north than in the south. This is just one among many differences that exist between these two parts of the same forest.

The restoration and maintenance of each historic native forest can only be effective if a panel of local citizens who are familiar with the forest develop the restoration plan and monitor its implementation. The local panel should consist of scientists and public and private forest managers who work in that forest, as well as other knowledgeable citizens; including a representative of local Indian tribes. Existing literature and the experience of those involved should form the basis for most decisions. Research should be limited to only the most crucial questions and performed quickly. Long-term research should not delay the development and execution of a restoration plan because the problem of restoring America's historic native forests is too urgent.

CONCLUSION

America's original native forests are as much a part of the nation's history as any building, ruin, or artifact. Native forests influenced the development of our culture just as our culture influenced native forests. They are inseparable parts of the same heritage. We cannot understand or portray one without the other. In addition, this relationship can only be appreciated at a scale the fits the scale of our historic landscapes. Restoring historic native forests will improve the health and diversity of the Nation's forests, reduce threats to local communities from wildfires, and assist economic growth and development. More importantly, it will fulfill the need for our citizens to see and experience the native forests that influenced our country's development and helped to mold our spirit of enterprise and freedom. Restoring and sustaining examples of historic native forests is a worthy goal for America.

BIOGRAPHICAL SUMMARY

Dr. THOMAS M. Bonnicksen is a professor in the Department of Forest Science at Texas A&M University specializing in restoration forestry. He earned a B. S. in forestry (with minors in wildlife and range), a M. S. degree in forest ecology, and a Ph.D. degree in forest policy from the University of California–Berkeley.

Dr. Bonnicksen has conducted research on restoring and sustaining America's native forests for more than thirty years. He has written over one hundred

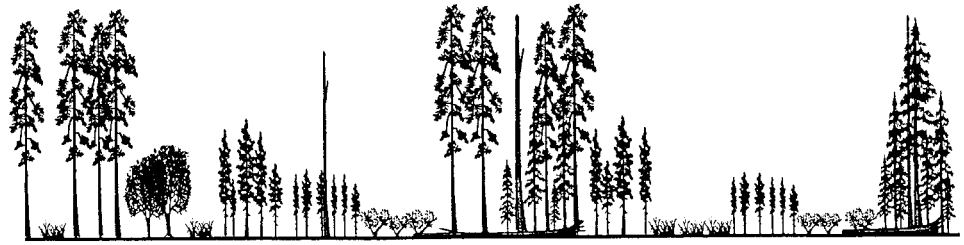
publications and he authored the book titled America's Ancient Forests: from the Ice Age to the Age of Discovery (Copyright January 2000, John Wiley &' Sons, Inc., 594 pages). The book documents the history of North America's native forests. It gives special emphasis to the way America's native forests appeared at the time of European settlement and the role Native American's played in their development. He is also cofounder of the International Society for Ecological Restoration and a former member of its board of directors. He served on many federal and state advisory committees, most recently as a member of the U. S. Senate and House of Representative's California Forest EIS Review Committee and the U.S. House of Representatives' Forest Health Science Panel. He is a 33-year member of the Society of American Foresters, and a former university Department Head, California state park commissioner appointed by Governor Reagan, and National Park ranger.

[Attachments to Mr. Bonnicksen's statement follow:]

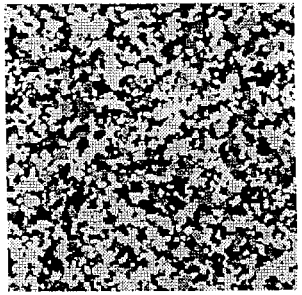
Figure 1.

Historic Sierra Nevada Mixed-Conifer Forest Structure

(Data from Bonnicksen and Stone (1982, 1981, 1978) and unpublished data from Bonnicksen (1983) taken from a mixed-conifer forest in Kings Canyon National Park)



Simulated historic Sierra Nevada mixed-conifer forest mosaic (6 growth stages shown) created using Saura and Martinez-Millan's (2000) modified random clusters method (patches average 0.2 acres).



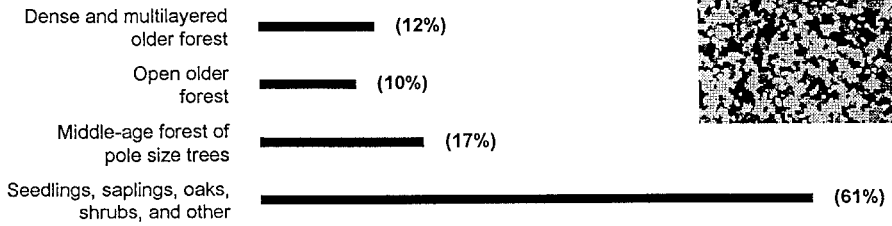
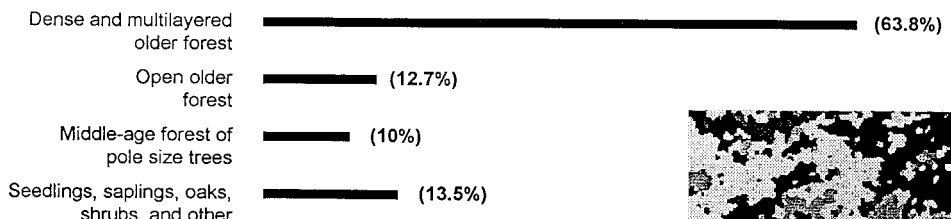
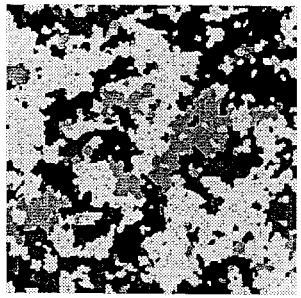


Figure 2.

Projected Sierra Nevada Conifer Forest Structure (10 Decades)

(Data for Preferred Option 8 in FEIS Vol. 2, Chapt. 2, part 3.1)





Simulated future (10 decades) Sierra Nevada mixed-conifer forest mosaic (6 growth stages shown) created using Saura and Martinez-Millan's (2000) modified random clusters method (patches average 1.3 acres).

Figure 3.

Pacific Douglas-fir Forest

Average proportions of successional stages in a historic Pacific Douglas-fir forest mosaic sustained by a 400-year cycle of stand replacing fires

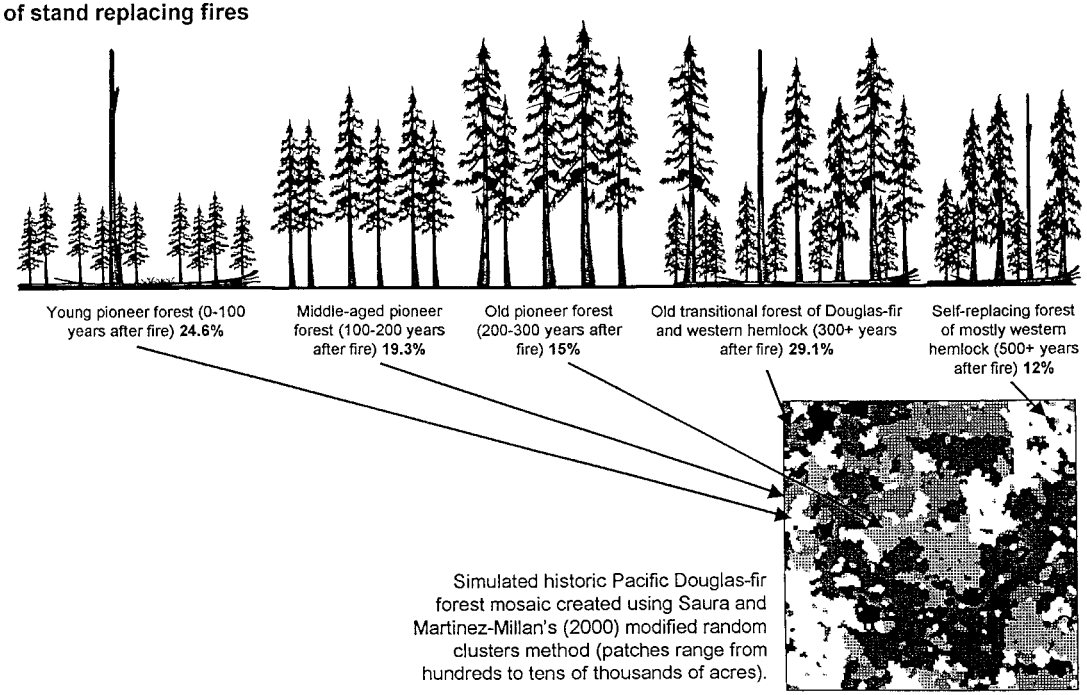
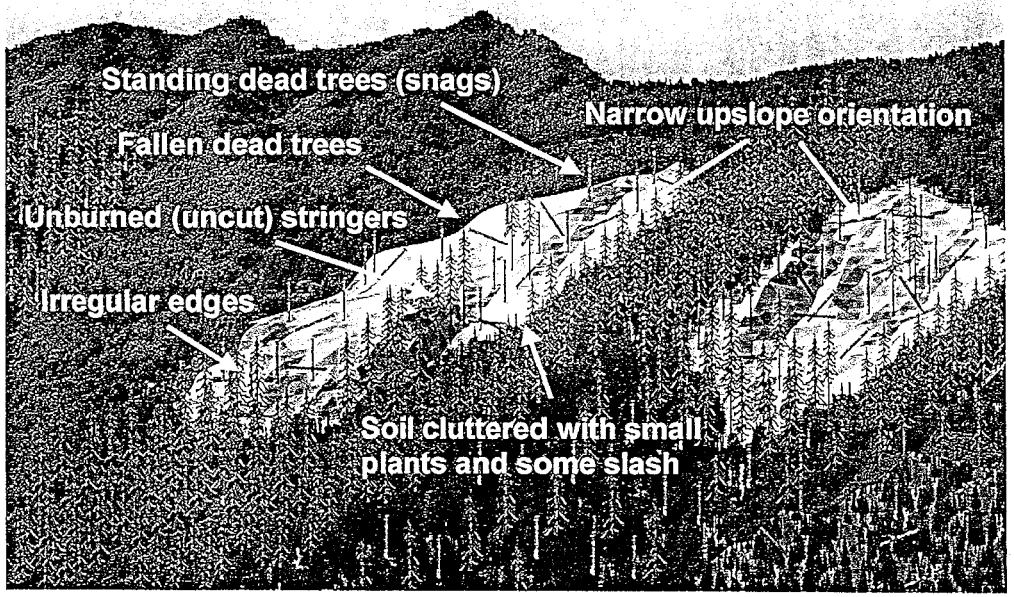


Figure 4.

Restoration Forestry

Cuts that simulate small crown fires in a forest composed of randomly dispersed patches of different successional stages that approximates an historic native Douglas-fir forest mosaic *



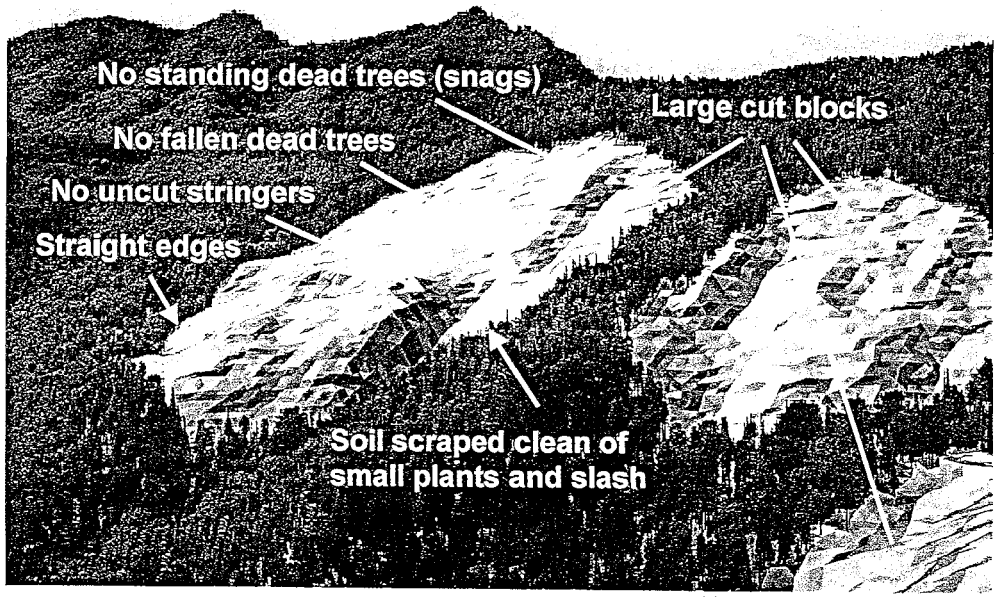
* The total area cut and the proportion of older forest depends on what is required to simulate the historic forest mosaic in a cost-effective manner.

Adapted from image by Dr. Miguel Acevedo by Dr. Thomas M. Bonnicksen

Figure 5.

Traditional Forestry

Clearcuts in a relatively young Douglas-fir forest mosaic composed of many uniformly dispersed patches



Adapted from image by Dr. Miguel Acevedo
by Dr. Thomas M. Bonnicksen

Mr. MCINNIS. Thank you, Doctor.

Next, Mr. Barnett, you may proceed.

STATEMENT OF JOHN BARNETT, CHAIRMAN, COWLITZ INDIAN TRIBE, STATE OF WASHINGTON, CEO AND OWNER OF COWLITZ TIMBER, INC.

Mr. BARNETT. Thank you, Mr. Chairman. I would like to thank you and the Committee and Mr. Simpson for inviting me here today. I think this bill is something that I personally have looked forward to for a long, long time, wondering when in the world is it ever going to happen. Who is John Barnett? John Barnett is a son of a Finn lady and a Cowlitz Indian. I am sometimes referred to by my colleagues as the big Finndian. I am from a little wide spot in the road called Naselle, Washington, which is just about 10 miles from where Doug Crandall was raised, across the Columbia River.

I have had 50 years of experience, actual hands-on experience in our forests. I have been involved in all phases of forestry, from logger, timber cutter, to presently manager, CEO and owner of 5,000 acres of timberland and a company, along with my son, Cowlitz Timber, Inc. Over the years, I have observed all of the changes that man has made to our forest, some good and a lot of bad. What do forests mean to Native Americans? Our view of the forest is much, much different than the average citizen of the United States. Forests are one of the cornerstones of our culture, along with salmon.

Tribal uses, historically, were different than those of white society. We use the forests for ceremonial purposes, spiritual purposes. We use them for vision quests, which I have been on many times, to seek my Tamanawas, which allows me to learn from my spirit master, what to do, and when to do it. We also realize that the forest was put there for our use and our survival. Hunting and fishing and the other resources of the forests are used to live as Indian people. This has been going on since time immemorial.

I am going to tell you briefly what is happening to our forests in the Pacific Northwest through the eyes of the Cowlitz people. We are deeply saddened by the loss of our national forests from what they once were in aboriginal times to the preservation forestry that is the myth that we are living under today. What is really happening to the forests of the Pacific Northwest? They are gradually evolving from the mixed stand timber; Douglas Fir, Sitka Spruce, Western Red Cedar, Hemlock, White Pine, to a monoculture of Western Hemlock.

Here is the Western Hemlock story. Western Hemlock is the only conifer species that will grow in the shade and thrive. As our old-growth forest rapidly disappears, it is being replaced by a monoculture of Western Hemlock. Under our present rules and regulations in the United States, we do not have the advantages of fire to cleanse the earth. As a result, we are looking for some monumental forests fires that will make the ones in Montana a year ago look like bonfires. I can foresee the day when a fire will burn from Seattle completely through the Olympic National Forests. As the fuel builds up on the ground, this is going to happen.

I have specifically done a lot of my work in the Quinault Natural Area. This is an area that was established in 1931 for study and education of the American people in forestry. At that time, it was a stand of mixed, old-growth trees. Today, over 50 percent of that stand of timber, 1000 acres, has turned to Western Hemlock, because every time one of those big trees hits the ground, for whatever reason; dying a natural death, blown over by the wind or whatever, it is not replaced by another Douglas Fir, another cedar, another spruce. It is replaced by Western Hemlock, which is the monoculture I was telling you about taking over. What is going to happen over time, is eventually that whole forest that we knew once is going to be replaced by this monoculture of Western Hemlock which, in turn, will provide us with an over and over and over forest of nothing but Western Hemlock. In walking through these monocultures of Western Hemlock, it is my estimation that we are losing and have lost at this point in time over 50 percent of the species that are in the forests and were in there when it was considered a mixed stand of timber, a very important thing to consider, especially when we look at the Endangered Species Act.

Let me say in closing that I think, for the first time in all of my years, I have really seen some common sense come before Congress for the benefit of the American people. I thank you.

[The prepared statement of Mr. Barnett follows:]

Statement of John Barnett, Chairman, Cowlitz Indian Tribe, State of Washington, CEO and Owner, Cowlitz Timber, Inc.

Let me begin by saying that I have some very serious concerns with the health of our national forests in the Pacific Northwest now and for future generations of Americans yet to come. Since the introduction of the spotted own as an endangered species and the environmental movement that followed, I have spent considerable time in both the Olympic and Gifford Pinchot National Forests to observe first hand the result of forest management changes. I have specifically concentrated my efforts in the Quinault Research Natural Area located between Neilton and Amanda Park in the state of Washington. This area, of some 1,000 acres, was set aside in 1931 as a research study area where Mother Nature is allowed to take its course. In 1931, this Natural Area consisted of what we now call a late successional or old growth forest consisting of varied tree species including Douglas fir, Sitka spruce, western red cedar, western hemlock, and red alder. The forest canopy was almost completely closed with a ground story of sword fern, salmon berry, and Devil's club. Early cruise figures show virtually 100% of old growth volumes.

To back up in history to 1993, it is quite evident to me that the Clinton Administration's Northwest Forest Plan placed our national forests in the middle of a collision course between politics and standard forest science. So far, politics is winning and the truth will only come out through a concerted effort nationally of all the people who have the fortitude to build enough ground swell to change a flawed national policy. It is also evident to me that the Clinton Administration's team of scientists headed by Jack Ward Thomas was instructed to present a series of "Forest Management Options" from which the Clinton Administration could choose one that would supposedly balance forests and humans. In the big court scene that will eventually come, the main characters will tell what went on behind closed doors, where science turned into politics and politics turned into special interest advocacy.

To prove the point of collusion between the Administration and the "Gang of Four," one must only turn to a book bearing an unassuming title: Annual Report of the Department of Interior for the Fiscal Year Ended June 30, 1900, Twenty-first Annual Report, U.S. Geological Service. The book includes hundreds of pages of detailed forest inventory data gathered on the ground in Oregon and Washington, and a large collection of color maps showing the distribution, size, and age of tree species then present. What is most unsettling about this huge body of information is the fact that the government's scientists make no mention of its existence in the proposal they wrote for the President, and in fact they say in words that it does not exist. The fact that the government scientists ignored historical forest patterns and

science, contradicts their own personal biases about forests and forestry and led to the historical gap in complete information that would have changed through actual proof that our forests in the Pacific Northwest are in a continuing state of disturbance and fluctuation. Change and turmoil, more than constancy and balance, are the rule. What forest science reveals is that natural disturbances, including weather patterns, wind, fire and disease, prevent ecosystems from ever settling into a steady state. The idea that the Pacific Northwest was once a vast sea of old growth timber is a myth. It has been one of the main components expounded by the environmental movement to sway the thinking of the general public in the United States that old growth trees as they now exist will be here forever and will be available for generations to hug into infinity. Trees, as well as humans, have a measurable life expectancy. They, as humans, will eventually have an obituary.

For further information, please turn to pages 7 through 16 in the Evergreen magazine (March–April, 1994 edition). This interview with Bob Zyback, "Voices in the Forest," contains valuable information on the historical overview of our forests in the Pacific Northwest and points out some very serious flaws in the formation of the Clinton Administration's "Northwest Forest Plan." I concur with his analysis.

It is very ironic that past Secretary of the Interior, Bruce Babbitt, made the following direct quotes during his observation of damages incurred recently by the Cerro Grande fire.

"It was a systematic failure in the Park Service. I think we are going to have to go back as a result of this investigation and revamp the fire program from A to Z . . . . We owe that to the American people," Babbitt said. "These forests are too thick," he said. "They're explosive, they're dangerous, and the reason is because fire has been excluded for 100 years and there's too much fuel in the forests, too many trees."

Sometimes the actual truth does slip out and seriously undermines the myth being fed to the American people.

With the above remarks being said, let me turn back to some observations and conclusions that I have reached. First, from the Cascade Mountain Range to the Pacific Ocean and from the Canadian border through Oregon and Washington and into northern California, our national forests are gradually changing from the mixed species of the past with its vast biodiversity to a monoculture of western hemlock. Western hemlock is the climax species of our so-called late successional forest that included trees of many species that were there prior to the coming of white settlers to North America. The term late successional is also a myth as it infers that the national forests will continue with replacement stands of mixed species as in the past. Western hemlock is the only conifer specie that will grow and thrive in the shade. When holes are created in the forest canopy due to wind or other disturbances or with the natural death of trees, the opening will naturally reseed with virtually exclusive stands of western hemlock regeneration. Over time, as the late successional forest eventually dies out and is replaced by the western hemlock monoculture and by the elimination of one of Mother Nature's tools—fire—the hemlock will repeat itself over and over until humans realize their mistake. Through preservation of our forests in their natural state, we are inviting an extremely heavy buildup of fuel content on the forest floor that will eventually climax with massive forest fires with the potential of burning millions of acres of our national forests.

Under the preservation mode presently in place, the magnificent Douglas fir is entering the downward spiral to extinction because it needs total sunlight to grow and thrive. The towering Sitka spruce, which will grow to a height of 250 feet with a diameter of more than 14 feet, is rapidly moving into extinction due to infestation of tip weevils in young trees of 10–15 years of age. The weevil eats the growth leader, which in turn causes a new growth of multiple leaders which diminish the height of the tree. Instead of 200 feet mature spruce, we are saddled with a multiple topped bush in the form of a snowball 20 to 40 feet tall at maturity. The Sitka spruce also needs total sunlight for survival.

Perhaps the worst feature of the Northwest Forest Plan is that tree species 80 years or older are now considered to have "old growth characteristics." The maximum age of our second growth tree plantations in the Pacific Northwest is 70 years. Once these plantations reach 80 years of age, they will automatically be "off limits" forever due to the old growth classification. The vast majority of Forest Service timber sales now consist of commercial thinning sales in these second growth stands. As the window is closed due to the 80-year tree age distinction, the true agenda of the Northwest Forest Plan becomes a reality—total preservation.

As the tribal chairman of the Cowlitz Indian Tribe for the past 20 years, I have a feel for their thoughts. My people look at the forest as a cornerstone of our culture along with the salmon. We look at the forest as a tool left us by the Creator—a tool

not only to be used spiritually but for our survival. The cedar tree is a very special tree to my people. Since time immemorial we have used the cedar bark for basket making, the trunk of the tree to make our canoes, and the branches for ceremonial purposes. My people believe that we can live in harmony with what was left for us by the Creator. We believe that it was given for our survival—as Native Americans. We also know that we must protect, preserve, and conserve what was given to us as a natural resource to continue as a replica of the past.

I have spent 55 years of my life in and around the forests of the Pacific Northwest. I fell the first tree in my life at the age of 12 on one end of a crosscut saw with my dad on the other end. I have had, during those years, extensive experience in all phases and use of the forest. My forest experiences have been hands on. My degrees in forestry are hanging in my garage in the form of 20 pairs of worn out caulk boot—each with stories all their own.

I have been very honored to have been able to testify before you today on subjects most dear to my heart. Change will only occur through the will of the people speaking the truth.

I would like to leave you with the following thoughts. In my opinion, drastic change in policy regarding use and management of our national forests is needed immediately. We have altered the Master Plan provided by the Creator. We must reverse this alteration and recreate the forest landscape as was intended. This means sound forest stewardship to revive our multiple species of trees that were here prior to white settlement of the land. This must be based on the landscape, soil type and climate. Without this biodiversity, all creatures of the forest may face extinction.

As history unveils, I, for one, do not want my great grandchildren to see our forests as they once were—only in pictures.

Mr. MCINNIS. Thank you, Mr. Barnett.

Mr. Holmer, you may proceed.

STATEMENT OF STEVE HOLMER, CAMPAIGN COORDINATOR, AMERICAN LANDS ALLIANCE

Mr. HOLMER. Thank you. On behalf of the American Lands Alliance, I would like to urge the Committee to reject H.R. 2119. We do not feel that the bill addresses the priority needs for our national forests. We would just like to specifically say we strongly disagree with the restoration proposals here, but we agree that restoration for the national forests is a very critically important topic, and we are very interested in continuing to work with the Committee on that.

We, fundamentally, think you need to look at the root causes for the kinds of changes in the forests that have been described to you. We see the root causes as being logging, grazing, fire suppression, invasive species and excessive road construction. So, we feel like, if you really want to restore the forest, you have to start by addressing those specific issues first.

I would just like to real quickly run through our concerns about H.R. 2119, and then talk about some of our ideas for restoration that we urge the Committee to consider. We do not feel that new land management designation for historical forests is necessary. In general, we feel, thematically, like there has been a failure to recognize natural forest succession. The fact is, you have a natural process where forests will change over time. As described to you, you will have shade-tolerant species ultimately take over for species that favor the sunlight, but then sometime down the road you will have a natural disturbance, a wind event or a fire, that will remove the shade tolerant species and, again, the sun-loving species will have a chance to regenerate in those areas.

It is a natural process. So, the idea of trying to freeze things in time and keeping the forests at that exact place forever simply shows no recognition of how forests really work. We do need to recognize that forests are dynamic and we cannot assume we can just freeze them in time. What we can do, though, is we can preserve the fundamental ecological processes that determine how forests are going to evolve over time, and allowing these natural processes to work is really how we think you are going to end up restoring the forests.

Another key point is that we are concerned about the need to create new management plans for these historic forests. Right now, we are already involved in an intensive forest-planning process. This will basically duplicate that, increase the amount of funding and bureaucracy needed to do forest planning, and we think it is likely to create management conflicts when you have two plans come out for the same piece of ground that do not agree with each other. So, we see all the management planning in there as completely unnecessary.

We are also concerned about the restoration goal found in Section 103. It puts resource extraction on par with legitimate restoration activities. Excessive resource extraction and intensive management is the primary cause of forest degradation. Continuing resource extraction as part of restoration is likely to undermine the ecological objectives of the program, and require additional ecological restoration in the future. To go back to your analogy of being a dentist, if you had a patient who just had three teeth knocked out and said you are going to replace your three teeth, but we need to take two more of your teeth out to pay for things, the patient is going to realize that he is not quite getting all the way restored. So, we are very concerned about an economic model for restoration that requires continued extraction to pay for everything. We think that you are just not going to get there that way.

Another key concern has to do with the creation of a new off-budget trust fund. We have seen serious problems with the current trust fund, such as KV, salvage and brush disposal funds, where they create an incentive for the agency to favor resource extraction activities over other type of restoration activities. So, we would be very concerned about the creation of a new fund. We are even further concerned about taking money from offshore oil drilling and using it for this purpose. We think that those funds should be used for other purposes, such as the acquisition of the threatened habitats. If we are going to protect endangered species, that is probably the fastest way you are going to get there, by acquiring these threatened habitats.

We are also very concerned about both Title II and Title III that would create new advisory Committees. Neither of these Committees have to be under the Federal Advisory Committee Act. They are both full of political appointees, so we do not see them being fair or balanced. The local advisory Committee would also be repeating the resource advisory Committees that were just created under the county payments bill. So, we do not think that that is necessary.

Just real quickly, I would just like to lay out a few of the principles that we think should be considered. One is that forest

restoration requires an integrated, comprehensive approach that includes preserving and protecting intact landscapes and letting the land heal itself, and only where necessary, helping it do so with active restoration efforts. From a basis of ecological integrity, we can re-establish sustainable human connections to the land through quality restoration jobs and conservation-based economies, as well as provide an economic framework to restore and sustain ecological integrity and community viability.

We see a real opportunity to create jobs here, but the program has to be set up in a way that the public can be involved, that the science is listened to, where there is environmental and economic justice for the workers doing these projects. Right now we are in a low-bidder system that encourages a system of migrant forest workers, very similar to the system of migrant farm workers. These workers are being abused; they are being paid less than minimum. We believe in the end, the forests themselves will end up suffering under this system, because economics, in the end, will be paramount. Letting big companies come in and do big contracts that involve a lot of logging will be paramount. We would much rather move to a system that supports small businesses, that supports small communities, but that does not encourage increased resource extraction on the public lands.

My testimony is available for your reading. I would just like to also mention the precautionary principle. There is a great deal we do not know right now about what would happen if we go out and do these activities. For example, people talk about thinning to reduce fire risk, but the fact is, according to Forest Trust, which just reviewed 400 papers on this subject, there is no empirical data that shows that thinning will reduce fire risk on our forests. So, we need to know what we are doing before we start proposing changing the whole landscape.

[The prepared statement of Mr. Holmer follows:]

Statement of Steve Holmer, Campaign Coordinator, American Lands Alliance

On behalf of American Lands Alliance, representing grassroots forest activists and organizations from around the nation, we urge the Committee to reject H.R. 2119, because the bill does not address the priority need for protecting and restoring the National Forests. Intensive management is part of the problem, not the solution. While we strongly disagree with the specific proposals found in H.R. 2119, we agree that addressing the restoration of degraded forest landscapes is an extremely important topic that merits further discussion and ultimately, congressional action.

Concerns With H.R. 2119

1. The proposal to create a new land management designation of "National Historic Forest" in Sec. 101 is unnecessary. The proposed process for designation will be expensive and time consuming for agency officials and the concerned public while offering no discernible benefits.

2. The preparation of management plans for historic forests as required by Sec. 102 of the bill outside of the established forest planning process will lead to duplication of work and require considerable staff time and funding better spent on ecologically beneficial restoration projects.

3. The "special consideration" of certain uses in these management plans in Sec. 102 (b) (2) overemphasize economic considerations while placing insufficient emphasis on protecting ecosystem services such as water quality and maintaining the viability of fish and endangered species across their natural ranges.

4. The ability for the Secretary to unilaterally revise or revoke a management plan in Sec. 102 (c) undermines the public involvement process. All decisions and management plans affecting plans should have a mechanism for public involvement.

5. The restoration goal found in Sec. 103 puts resource extraction on par with legitimate restoration activities. Excessive resource extraction and intensive management is the primary cause of forest degradation. Continuing resource extraction as part of restoration is likely to undermine the ecological objectives of the program and require additional ecological restoration in the future.

6. Overall, while the goal of restoration is needed and worthwhile, there also needs to be specific scientific principles and management criteria included in the bill to ensure that the resulting projects do not do more harm than good.

7. The direction to use cost-effective restoration methods in Sec. 104 may lead to commodity extraction to pay for needed restoration projects. Commercial logging is never the most cost effective method when all factors are considered. In fact, it is one of the contributing reasons why forests need to be "restored" today. Ecological restoration will, in general, not generate significant revenue or by-products of economic value. Restoration work will require an investment by Congress—a very wise investment—that will create jobs and maintain the fundamental ecosystem services such as clean water supplies upon which human society and the entire economy is based.

8. Amending National Forest Management plans (Sec. 105) to make them consistent with the approved management plans for historic forests will require citizens to be involved with two separate planning processes for the same area and create potential management conflicts.

9. The National Historic Forest Restoration Fund (Sec. 107) will create a new incentive for resource extraction on the National Forests and encourage revenue generating projects under the guise of restoration. As is currently the case with the KV, Brush Disposal and Salvage funds, off-budget funds create an incentive for the agency to maximize revenue because it gets to keep 100% of the money.

10. Funds from the Land and Water Conservation Fund (Sec. 107) should not be used to create and support the Historic Forest Restoration Fund. The bill proposes to divert $675 million over the life of the bill that could be better spent acquiring threatened habitats.

11. Accepting donations (Sec. 108) and giving due consideration to the expressed intentions of the donor could lead to undue influence being exerted by donors on the Forest Service.

12. Title II of H.R. 2119 creates an unnecessary National Advisory Council on Forest Restoration which duplicates responsibilities now held by the Forest Service. All positions, with the exception of the Chief of the Forest Service would be political appointees of the Bush Administration. This does not ensure a fair or balanced participant make up nor are their requirements to ensure that the scientific, forest workers or environmentalists are represented. This complete lack of fairness is perhaps why the bill exempts this Committee from the Federal Advisory Committee Act.

13. Title III of the bill creates Local Management Advisory Committees which fails to adequately allow representation of the full range of scientific, worker and environmental interests concerned about recreation issues. This would also duplicate similar Resource Advisory Committees created by the county payments legislation. The emphasis on foresters on the committee indicates a strong bias for certain types of restoration (salvage and thinning) over others. A wildlife biologist might be more interested in the reintroduction of endangered species, while a hydrologist might be more focused on removing roads to restore watersheds. Again, this committee would not have to comply with the Federal Advisory Committee Act to ensure fair representation.

In conclusion, we are strongly opposed to H.R. 2119 and would urge the Committee to reject it in its entirety. However, we are very interested in the topic of restoration and are working to develop a model that we hope can help benefit Congress and the land management agencies as they move forward to address this critical issue.

A Vision and Principles for Forest Restoration

Fully functioning ecosystems are the Earth's life support. Forest ecosystems provide clean drinking water, purify our air and regulate our climate. These vital benefits are literally our stock of "natural capital" that is necessary to sustain all life. Provided that the forests' natural processes are functioning, they will supply a steady flow of these ecological services.

In most cases natural capital is neither owned nor marketed. While the values of these services are understood, clean water and air, for example, are often considered "free for the taking." Safeguarding these services and the forests that provide them are not usually the priority goal for land management decisions. Current economic incentives and a focus on resource extraction often work at cross-purposes

with protecting these forest values and result in the rapid depletion of natural capital. Consequently, these once enormously productive natural systems are unraveling, degrading water quality, compromising the health of rivers and streams, driving to extinction the last wild fish populations and severely impairing the ability of forests to regulate the climate.

Decades of industrial forest practices have taken their toll on this country's forests and the communities and workforces that depend on them for their livelihood. Intensive management restoration prescriptions only perpetuate the further destruction of systems. Society's approach has been one-sided, focusing on taking from what seemed to be an endless supply of timber. Now it is time for society to give something back and focus on restoring the ecological integrity of our forests that will in turn secure our well being and that of future generations.

There is a greater scientific understanding of the connections between land management actions and their negative impacts on the ability of a forest to provide vital ecological services. There are also good ecological economic models that more fully account for the costs and benefits of land management decisions. These models should be used to guide appropriate policy, incentives and mechanisms for investing in the landscape through ecological restoration.

Recently, decision-makers and the interested public have recognized the need to restore our forests and federal agencies have developed plans for restoration activities. Central to the debate is the question of whether all proposed "restoration" activities are truly beneficial to the land and the lives that depend on them. Most notable is the National Fire Management Plan, which has raised many concerns about the plan's approach to forest restoration as well as concerns with other federal agency restoration efforts. Perhaps most important is the need to proceed with extreme caution. Just because humans have caused the current level of degradation, we should not assume that human intervention can always necessarily solve these problems.

Several questions need to be answered in order develop a credible science-based restoration agenda including: 1) defining ecological forest restoration and the principals and criteria on which this work should be carried out, 2) using these principles and criteria to guide implementation of the National Fire Plan so that it is ecologically sound, 3) identifying who will do the work, 4) identifying what skills are needed and what processes will allow for equitable participation by rural communities and mobile workforces, and 5) what is the transition strategy by which these goals can be achieved.

The following restoration goals and principles are under development to answer these questions and set forth a vision and framework for addressing these issues. This policy statement is national in scope and recognizes the need to develop supplemental regional principals and criteria that would address differences in forest ecosystems and further involve regional partners.

Forest Restoration Principle

Forest Restoration requires an integrated, comprehensive approach which includes preserving and protecting intact landscapes; letting the land heal itself, and, only where necessary, helping it to do so. From a basis of ecological integrity we can reestablish sustainable human connections to the land through quality restoration jobs and conservation-based economies, as well as provide an economic framework to restore and sustain ecological integrity and community viability.

Ecological Forest Restoration Principle

Ecological forest restoration is the process of assisting forest ecosystem recovery so that ecosystem integrity is enhanced and natural processes and disturbances can function unimpaired. Successful forest restoration has the potential to re-establish fully functioning ecosystems.

The goal of forest restoration is to enhance ecological integrity by restoring natural processes and resilience. An ecological integrity approach encompasses advantages of historical models while recognizing that ecosystems are dynamic and change over time . Focusing on enhancing ecological integrity allows us to be guided by the needs of ecosystems rather than forcing our needs onto the landscape.

Because we do not fully understand the potential impacts of restoration, all projects must be guided by the precautionary principle: if a restoration activity has a high risk of ecological damage and weak scientific support, then the activity should not go forward. This will be considered before deciding which type of restoration approach to use. Ecological restoration, based on a restoration needs assessment, will be approached on a scale from least invasive to more invasive.

Ecological Economics, Communities and Workforce Principle

Ecological restoration is an important component of an ecologically sound, socially-just forest economy. It has the potential to support the long-term viability of communities at an appropriate scale, while fostering a culture of environmental sustainability. However, current economic incentives drive land managers, companies and consumers to rapidly deplete natural resources and social stability, imposing heavy costs upon the public, taxpayers and future generations without our consent. These incentives must be removed and replaced with positive incentives to protect and restore ecological integrity, within a framework that more fully accounts for the costs and benefits of land management actions.

A highly-skilled, well-paid workforce is essential for restoration to meet high ecological standards. This requires a commitment to regional training capacity, skill certification, consistent funding over decades and workers' rights to organize and bargain collectively. The process of advancing ecological restoration must be open, inclusive and transparent, and become a practical outlet for breaking down class, culture, gender, language and religious barriers.

Ecological Forest Restoration

1) Precautionary Principle: Because ecological systems are inherently complex and dynamic, it is impossible to accurately predict all the consequences of our actions, even well- intentioned restoration actions. Therefore, if an area proposed for restoration presents a risk of being negatively impacted by restoration actions, or if a specific restoration action poses a high risk of ecological damage or has weak scientific support, then the proposed area or action will not go forward, or the restoration activity will be implemented in incremental steps on an experimental basis. Active restoration should be implemented in situations where passive restoration might lead to the destruction or loss of natural processes, a species, stream system or rare representative ecosystem within a particular area.

Precautionary Criteria:

a) Restoration plans will take a conservative approach.
b) Restoration projects that do not include money for assessment, monitoring and evaluation will not proceed.
c) Restoration plans must be open to revision based on monitoring, evaluation, new ideas and new science.
d) Restoration plans must minimize risks to ecosystem integrity.
e) The precautionary principle will be applied in two stages:
    i) In determining where to apply restoration activities
    ii) In determining what type of restoration technique to apply once an area is chosen for restoration
f) Intensive management such as commercial logging should never be viewed as a way to achieve restoration.

2) Prioritization Principle: There are three which define the range of forest restoration methods:

1) preservation, the protection of relatively intact natural areas and core refugia as sources of biodiversity, for example old growth forests and roadless areas, where restoration is largely unnecessary, or reference landscapes needed as a source of baseline information;
2) passive restoration, the cessation of ecologically degrading activities, such as intensive logging, grazing and recreation, and excessive suppression of fire and forest pathogens, to allow natural recovery processes to proceed unhindered; and
3) active restoration, direct human intervention to reintroduce (or secure) natural processes or at risk species in cases where a) ecosystem composition, structure and function are degraded or suppressed by factors such as compacted soils, channelized streams, exclusion of endemic pathogens etc., or b) human-induced ecosystem changes pose imminent threats to intact natural areas, including roads and trails, and exotic invasives.

In determining restoration activities, priority must be given to protection of intact areas, and restoring areas of highest ecological integrity. In these areas, passive restoration will be encouraged, and active restoration will be applied judiciously based on degree of degradation and ecological need, emphasizing the least intensive interventions which are likely to provide the greatest ecological benefit, while minimizing management-induced ecological risks and costs.

Active restoration will not be applied to intact areas and core refugia, such as old-growth forests, roadless or wilderness areas. Restoration of all kinds should proceed most rapidly in areas where, and using methods for which there is a high degree of consensus among key stakeholders that such restoration plans will enhance ecological integrity. Key stakeholders include scientists, communities of interest

(environmental, worker, community), communities of place, and managers of affected land ownerships.

Adaptive Management Principle: Ecological forest restoration of any type, at any scale is a process of adaptive management. Because of high levels of complexity, uncertainty and risk, any restoration requires an approach that is cautious, flexible and able to respond to change and new information. Acceptable restoration projects include a transparent public process that provides for: assessment, implementation, monitoring, evaluation and adaptation.

Economic Framework Principle: Incentives that are inconsistent with achieving ecological integrity must be eliminated and replaced with positive economic incentives to protect and restore ecological integrity, within a framework that accounts for the costs and benefits associated with natural capital.

Community/Workforce Sustainability Principle: Restoration must foster a sustainable human relationship to the land that provides for ecological integrity, social and economic justice for workers and communities, and a culture of preservation and restoration. In turn, effective restoration depends on strong, healthy and diverse communities and a skilled, committed workforce.

Participatory Principle: Meaningful involvement for a diversity of communities, interest groups and other participants (at local, regional, and national levels) will be achieved through open, inclusive and transparent decision-making processes with recognition of and respect for differences.

Thank you for this opportunity to testify and I am happy to answer any questions from the Committee.

Mr. MCINNIS. We will now move to questions for the panel. I will begin the questions very briefly. First of all, Doctor, I find your comments—I keep looking back to your book and I appreciate you coming. I think that book is very helpful. Mr. Barnett, I am afraid that sometimes the people on the ground, such as yourself, with a long history and actually an eyewitness to the forest history as we have known it for the last 50 years. I think I see you as an expert. Unfortunately, I think back here in the political circles, you are often pushed aside for a more ideological philosophy of how these forests ought to be run, instead of actual common sense, and I appreciate your comments.

Mr. Holmer, I need a couple of clarifications on your comments. First of all, you make a statement that the bill calls for extraction to pay for everything. I think that is a bit of an overstatement. I do not believe—maybe you are correct. If you can show me the language where extraction is required to pay for quote, "everything."

Mr. HOLMER. Well, we are concerned about the provision in the bill—

Mr. MCINNIS. My question, Mr. Holmer, is does the bill contain that language or do you stand corrected?

Mr. HOLMER. It contains that intent, I believe.

Mr. MCINNIS. Mr. Holmer, I am the Chairman of the Committee. My purpose in asking you that is, I do not want you to make a representation that the bill says something that, in fact, it does not. That is exactly what you did with your statement. I was looking. I could not find that language. You have clarified for me—

Mr. HOLMER. If I could clarify further—

Mr. MCINNIS. Let me move to the second point that I want to ask you. You also cited that there are workers out there who are being abused. I would like to—you do not have to provide it today. You may not have it today. But, I take great interest in workers, whether they are migrant workers or other workers, who are suffering abuse and are working in violation of the law in regards to minimum wage. If you have that evidence—you stated that you do.

If you have that, I request that you submit it to the panel or to my personal attention, so that we can then turn around and submit it to the proper authorities, so that it can be investigated.

With that, I am now going to turn the microphone over to Mr. Inslee. Mr. Inslee, I open the mike, not only for questions, but also if you would like to give an opening statement, you are welcome to do so.

Mr. INSLEE. Thank you, Mr. Chairman. First, I would like to welcome Mr. Barnett, a fellow traveler who knows what the planes are like all across America. We appreciate you coming from the State of Washington, Mr. Barnett.

Mr. BARNETT. Thank you.

Mr. INSLEE. Mr. Holmer, would you want to take some of my time and elaborate on your answer to the chair's question about this issue of intent and how to pay for the program and extraction? Go ahead.

Mr. HOLMER. Sure, well, I think my comment was colored by what we are seeing happening on the ground right now, where there are a large number of restoration projects that are being billed as restoration, but, in fact, have a commercial-logging component. When we talk to the agency about this, they say that this is a way of trying to help recover some of our costs. We are very concerned that the commercial aspects of these projects undermine the projects.

Take thinning, for example—the idea of thinning is to go out and remove the small diameter material and the brush. But if it is done as a commercial timber sale, there is an incentive to put some larger fire-resistant trees into these projects in order to make them pay their way. So, we are just very concerned about getting into a system where all restoration is, in some form, tied to commodity extraction. We would like to eliminate commodity extraction as part of any legitimate restoration program.

Mr. INSLEE. Mr. Barnett and Mr. Bonnicksen, let me ask you each to address this general issue. If we are going to design a system as—and what I understand the intent of the bill to be is, to design a system to, obviously to try to restore forests to their original condition, which could involve, at time, harvesting of wood fiber for various reasons. But I think the concern that has been addressed, that we do not create an incentive for decisions to be based on the commodity value of some of the timber being harvested, as opposed to the goal of restoring forests. To me, that is sort of the $64,000 question. How do you design a system that does not create incentives for the decision makers to make decisions based on the market value of the timber, as opposed to the real goal, which is restoring the forest?

Now, let me just tell you about a couple of concerns I have. Under the existing situation, I think there is an incentive to make some wrong decisions, because the Forest Service and the trust fund essentially keeps the money. So they have some incentive, if you will, to maximize harvest. Secondly, if we do make any intimation that we use these funds to pay for the program, I think that there is an incentive for people to make decisions on the wrong motivation.

How would you address those concerns? Maybe you can tell us if the bill already does that and, if not, what should we be thinking about to try to ensure that decision makers would make decisions based on restoration of the forest as opposed to maximization of the economic value?

Mr. BONNICKSEN. I would share your concern. I would certainly not want to see the extraction of timber and the generation of revenue to take precedence over what the real intent of this bill is, which is to fill a very important gap in our laws that would provide our children and grandchildren with some examples of the marvelous landscapes that they inherited. That is our goal, and nothing should interfere with that. It is our history, and we should take care of it. But the fact is we cannot afford to do this on the scale necessary, using public funds alone.

If you simply talk about the cost of using prescribed fire, it ranges at the very best situation $60 an acre, and from there, such as in the Tahoe Basin, it can go from $700 to $1000 an acre to do. That is not including pre-commercial thinning, which can be several hundred dollars an acre on top of that. Well, you take those costs and multiply them times, say, 90 million acres, which is about what we need to deal with, and you can see that nobody is ever going to pay for that. And that is for the first entry. After that, you have to enter the forest every 10, 20, whatever the years would be required for a particular forest, to sustain it, to maintain it.

You cannot do that either with public funds alone. That is not possible. We are going to have to generate some revenue to supplement the cost of management, otherwise we will have to forego the idea of recovering our forest heritage. It will not be financially possible, but we should, at the same time, avoid making the generation of revenue the incentive that would override the purpose of management. And that, I think, can easily be done. Right now, we do not really have restoration plans that are designed to recover what we have lost. There are many variations and most of them really do not come close to the historic forest.

If we have a plan that actually says this is specifically the forest we want to re-create, then commercial incentives are not going to have any effect on the way you manage it. It is going to be revenue that is a byproduct of achieving the goal that has been specified, and the local management Committees are the most knowledgeable people to provide us with those plans.

So, I think, by making the plan—crafting the plan more carefully, we can control whatever incentive might be to use timber harvesting excessively, which I would not want to see any more than you would.

Mr. MCINNIS. Mr. Simpson?

Mr. SIMPSON. Thank you, Mr. Chairman. Some people are going to suggest or be concerned that the goal behind this is to increase timber harvest on public lands, and it is not. What we have to do is keep in mind what the goal is. And the goal is trying to restore our historic forests, and, I guess, Mr. Holmer, you are not opposed to that; are you?

Mr. HOLMER. No, I am not, but I think the issue here is maybe we have different priorities. We would like to see a scientific /land-

scape-wide analysis to figure out what are the key priorities for each area. Actually, roads for our community seems to be the biggest environmental hazard out there. Invasive species in some parts of the country are clearly a huge threat, and we would propose stronger measures on trade agreements to keep these new critters from coming into the country. We do see a need for restoration, but we might go about it differently.

Mr. SIMPSON. Well, I guess we have some agreement then, which is a beginning point, in that we do have a need to restore these historic forests, and we can disagree on how to get there, and maybe we can reach some agreement, but I want you to understand that the goal is restoring the historic forests. It is not commercial timber harvest, is not anything like that. If there is another way to do it—if there is another way that you can restore them and not cut trees, that is fine with me. I do not care the method. I just want all available tools to be able to restore the historic forests that we have. And, just one correction, if someone comes into my office with three missing teeth, and I tell them that I have got to take two teeth out in order to pay to replace the three missing teeth, the fact is, I charge them to take out those other two, not get money from them. So, I mean, it costs them more money. So, just a correction on that.

Anyway, let me ask Dr. Bonnicksen, why do we need the local management Committees in this legislation?

Mr. BONNICKSEN. As a scientist and having written a book that covers 18,000 years of the history of our forests on an entire continent, you might think that I could actually have the knowledge to manage every forest on this continent. I would be the first to tell you I do not, and no scientist does. Every forest is unique, even within a type, because it is controlled by local influences, and all of us in science really specialize in a few forests, and have general knowledge of many. So, that is also true in terms of the people that lived there.

It turns out that many people, and they do not have to have degrees to be knowledgeable, have many years of experience with a particular forest, that when we ignore it, we do so at our peril. If, by showing respect for them and their knowledge, we incorporate them into the search for the truth about the forest history and what is feasible to do there, we will do a much better and more successful job in management. So, we have to tap into local knowledge, scientific and practical, to make it possible to do this, because no one has enough knowledge to do this everywhere. Local participation is essential.

Not only that, but really it has been studied all over the world. When we tried, for example, in Africa, to manage wildlife and restore wildlife—when you ignore those who live there, you fail. This has been shown in Africa. It has been shown in South America and Central America. Now ,everyone agrees that local participation is essential. Otherwise, not only do you lose the knowledge, but you lose the support of those who live there, and we need both. However that is structured administratively is of no importance, really. There are many people who know better how to do that. But what is important is that local people participate and share their knowledge so that we can really be successful.

Mr. SIMPSON. There seems to be differences between those people who view this, I guess, as a timber-cutting bill or whatever, or have different ideas about how to manage a historic forest, than what is in this legislation. How do we resolve those differences between these two sides or can we resolve those differences? Can you create a historic forest by just doing nothing?

Mr. BONNICKSEN. There are a few instances where that would actually be feasible. The best example I could come up with—well, actually two examples. One would be the Maple Basswood Forests on the Upper Peninsula of Michigan, the Porcupine Mountains State Wilderness Area. That is a forest that is primarily influenced by wind. The Native Americans made very little use of it. It has changed very little over the last 6,000 years, except for an excessive deer population eating hemlock seedlings, by and large, you could leave it alone.

The High Mountain Balsam Fir Forests in the New England States, likewise, could be left alone. But, by my calculations, about 97 percent of the land area occupied by our forests could not be left alone and successfully restored. The reason for that is that most of these are fire forests, and since the arrival of Native Americans in every corner of the lower 48, 12,000 years ago, they increased the fire frequency for a variety of purposes by doubling it in most cases, and in the Pacific Northwest, where John lives, they were the principal source of fire.

So, it seems to me that to leave the forests alone is to totally ignore its cultural history. I think we have to recognize in restoring forests the importance of the native peoples who lived here and who passed on to us the beautiful forests that we thought were important enough, for example, to put into the national parks. Their stewardship should be recognized and their participation should be an essential part of the process. So, leaving forests alone works in some places, but in most places, no.

Mr. SIMPSON. Thank you.

Mr. MCINNIS. Mr. Otter?

Mr. OTTER. Thank you, Mr. Chairman. Mr. Bonnicksen, I would like to follow up on a couple things that you said earlier, especially in response to Mr. Holmer's statement about the economic incentive. The question that I have for you is, you seem to be relatively familiar with natural resource extraction, and its cost as national policy; is it usual for us, when we are managing a natural resource, to see if we have got a cost versus benefit ratio going, or even when we enjoy one, let's say, like the Grand Canyon or the Yellowstone National Park, or even in that matter some oil drilling that we do or mining that we do—is it usual for us to look for a revenue source to at least defray part of the cost or all of the cost of our management?

Mr. BONNICKSEN. No, it really is not. It is becoming pretty expensive to go to a national park nowadays. It used to be a lot cheaper. That is one thing we are doing. We are generating revenue from our parks and it seems to be an acceptable thing to do.

Mr. OTTER. Let me expand just a little bit further on that. If we were to, indeed, restore, as many of Mr. Holmer and his constituents feel like perhaps we should, the natural process and the natural size of the forest, do we have—you seem to be pretty familiar

with what the forests used to look like—do we have a lot of cities to get rid of and a lot town to tear up and a lot of roads to get rid of?

Mr. BONNICKSEN. I certainly hope not. I care about my fellow human being as much as I care about this forest, so I certainly do not want to do that.

Mr. OTTER. Pardon me for breaking in on you, but you have come to the heart and to the essence of my point. Indeed, we are looking for a historic example, and I think that is what I got out of Mr. Barnett's statement, that a historic example that we could go and look at and say this is the way it used to be everywhere, but right now, we have been able to reflect for ourselves, back on mother nature and the way she prepared for us, on this small example of the way that it used to be. Isn't that what we are talking about here?

Mr. BONNICKSEN. If small serves the purpose, yes. In some cases, on the landscape, really require a large area, but yes, the goal is—I mean, one of my granddaughters looked at me and said, "Grandpa, you talk about these old forests," and they sit around and listen to me talk about them, and that is nice of them to do, "But where can we go to see one?" Really, if I take them somewhere, what I am going to have to say, and actually when I was a naturalist with the National Park Service, this is what I did do for 4 years—"See this forest? Isn't it magnificent? If you just take those trees away, and these trees away and those trees away, you can kind of visualize in your mind what it actually looked like."

Well, that is what we do not want to have to do. We want to be able to say, see, experience, feel, enjoy, feel the sense of pride in our country's history. This is what it really looked like. This is what inspired us to be the people we are.

Mr. OTTER. Interestingly enough, we had another hearing this morning, and it was on invasive and noxious weeds, and the process that we have across the United States, on all of the public lands, including the forest, but also the BLM, the Department of Energy's lands, the Department of Reclamations, U.S. Fish and Wildlife, and the list went on and on; and that if we did not do something, we were going to lose the natural lands and the natural inhabitants on those lands that we did have, meaning the vegetation.

Mr. Barnett, let me ask you about the Pacific Northwest. You seem to be the most familiar with that. What would it take in the Pacific Northwest, in terms of having a natural forests exhibition, and that is in terms of species and also in terms of size?

Mr. BARNETT. I think that people are going to have to understand that certain things have to take place in the landscape, in order to re-create what my ancestors were blessed with. I will you give you an example of forest fires. Forest fires are put out nowadays. They cleanse the ground, but what happens after that takes place? They are automatically replanted with a monoculture of Douglas Fir or whatever the predominant commercial species is in the area, by the Forest Service. We have a golden opportunity, whenever a forest fire takes place and is put out, to take that piece of land and do just exactly what this bill is intended to do, replant it the way mother nature put it there, or, as we say as Native

Americans, the way the Creator put it there, for our use, not only for beauty, but also for use and understanding.

It can be done. It has to be replanted anyway. I would imagine that Mr. Holmer would say—what are you going to do? Let mother nature take its place? When the seed source is gone, what is going to happen? Are you ever going to have trees again? I question that. But we do have that opportunity after all forest fires from now on, to put this bill in place, to begin building those ancient forests that we once had covering the United States. I hope I have answered your question.

Mr. OTTER. Thank you very much. You have, sir.

Mr. MCINNIS. Excuse me. I need to wrap this panel up. I do have one other question, Doctor, that came across to me as we were listening. There was a claim made in a previous statement that restoration science is still in its infancy, and that we really do not know enough to act yet. Tell me, and make your comments succinct, if you would, at what stage do we have that science and what is your response to that we should not act until, I guess, we get to a more advanced stage?

Mr. BONNICKSEN. The truth is we are talking about forests, and forestry is a profession that is 400 years old, and it originated in Europe. In that 400 years, forestry has developed into a very sophisticated science, but throughout, the roots of forestry are observations of nature and developing techniques to manage forests that mimic the way forests work, naturally. That is, all of our regeneration techniques, single-tree harvesting, group-selection cutting—we have a whole list of names for these techniques—all of them mimic natural forest processes.

So, no, restoration is not new. We have been using the forest as a model for management for four centuries and we have gotten to the point where we can predict very well precisely what the outcome of our management will be. I think what has probably happened is that some people have seen the creation of the Society for Ecological Restoration, of which I am one of the founders, in the late 1980's, as the starting point of our knowledge of restoration, which it was not. In fact, it was a society that was created to bring together thousands of people throughout the world, who have been doing this for a very long time, in a professional society with two scientific journals.

So, the creation of that society, I think, has led people to believe that this is a new science when, in fact, it was the culmination of many, many years of work. We have a very extensive literature on particular forests throughout the Nation on what they look like and how best to manage them. So, no, it is not in its infancy. We are at a point where we can act and act with confidence. There are forests for which we need more knowledge, that is one other reason for the local Committee, but I think we are well-prepared to carry out what this act intends.

Mr. HOLMER. Mr. Chairman, can I comment?

Mr. MCINNIS. No. Thank you, Doctor. I find the statement well informed.

Mr. Holmer, I am not going to make it a practice, as Chairman, of bouncing back and forth. You have been given your time allotment, and then we go around, as you know, to the panel members

to ask questions. However, I am going to grant a waiver. It is my understanding, Mr. Barnett, that you have a film clip. I have received a request from a member of the Committee to allow you to show that clip, which I understand is very short in time. We will not take questions following. Is that correct, that you brought a clip?

Mr. BARNETT. Yes, well, initially—well, it is a short story, but let me tell you. Two years ago, I went on a vision quest in the Olympic National Forest to seek answers to this forest progress problem. I got answers from my Tamanawas. That led me to Washington, D.C., in a meeting with Doug, and Lloyd Jones, who incidentally was raised one-quarter mile from where I was, and I decided my frustration, I could not hold any longer.

Out of my own pocket, I hired a crew to go out and put on tape the truth, the visual truth, of what is really happening to our forests in the Pacific Northwest. I would challenge the environmental community, and I would ask this Committee, at some time this summer, come on out and I will show you. I will show you exactly what I have said. The proof is in the pudding, and I can prove every word that I told you people today.

Doug has put together just a couple of minutes on this video. I think it will emphasize some of the things, and if you do not mind, Mr. Chairman, I will kind of just ad lib as we go along, so you can to get the visual look and hear exactly what is going on.

Mr. MCINNIS. Mr. Barnett, let me tell you that in fairness to the other people who have been limited to 5 minutes, I am granting you this additional time because you have come clear across the country to testify. I do not want this narration to continue. I want to see the clip very briefly. You may make a couple of comments and then we need to summarize. Otherwise, I have to reopen it for every other witness, which I do not intend to do.

Mr. BARNETT. Understood.

Mr. MCINNIS. So, you may proceed with the tape.

Mr. BARNETT. This is the remains of an eight-foot Douglas Fir, 240 feet tall, that died a natural death. Its obituary was in the Aberdeen World. It rotted from the inside out and hit the ground. It was replaced by these Western Hemlock trees that you see around the stump of another old-growth fir that also died a natural death. These hemlocks are about 60 years of age. The species that I was telling you that is taking over our forests. Here is another example of those Western Hemlocks. They are so thick that we refer to them in the Pacific Northwest as the dog-hair stands, because there are a thousand to the acre sometimes.

You will notice here that as you view the landscape, you see one or two old-growth trees left. All the other ones are the replacement by Western Hemlock of that one stand of mixed species. I might add that this is something that did not start 10 or 15 years ago. Some of these Western Hemlocks that you see are second-growth Hemlocks that were not planted. They came in naturally and some of them are 60 or 70 years old.

Here are some of the old-growth that are still left there. Many of the old-growth have the tops blown out of them during wind storms. What happens—here is another example of a Douglas Fir. If you look at this Douglas Fir that has naturally hit the ground,

you will notice that at the very end of it there is a gentleman helping with the filming. You see him walking up that tree. He is up there about 200 feet walking toward the stump.

But look at the stump. That is what is happening. It is rotting. It is a cancer of the tree, just like humans have cancer. Notice all around him the smaller trees. Those are all Western Hemlock, part of this monoculture takeover that I was telling you about. There is another view of it from a different angle. This tree was about, I would say, almost seven feet in diameter and it was about 250-to-260 feet tall. It did not have the top blown out of it, like a lot of them. It just died a natural death from the stump.

Mr. MCINNIS. I think we have reached the—is that the end of it?

Mr. BARNETT. Thank you.

Mr. MCINNIS. Thank you. I would like to thank the panel. I know that you have traveled a great distance to present your testimony. I appreciate the courtesy of you appearing in front of the Committee. Thank you very much. The panel is dismissed.

Ms. Collins, our third panel, Associate Deputy Chief with the National Forest System. Welcome back to the Committee. If you would go ahead and take your place at the table. Ms. Collins, you are aware of the rules of the Committee in regards to your testimony. You may proceed.

STATEMENT OF SALLY COLLINS, ASSOCIATE DEPUTY CHIEF, NATIONAL FOREST SYSTEM, USDA FOREST SERVICE

Ms. COLLINS. Thank you. I am delighted to be here. The comments I offer today are the administration's comments on H.R. 2119, and I can say right now that, Mr. Simpson, you are going to get rich dialogue around this topic. The administration supports the fundamental idea behind this bill; that is, that there is a need to restore some forests to what approximates their historic condition. We recognize that significant components of the biodiversity that once existed in pre-European forests have changed over time, even in forest ecosystems that have never been subject to active management.

The intense wildfires last summer focused attention on the fact that, in many parts of the West, open Ponderosa Pine forests that once were subject to frequent, low-intensity fire, have been replaced by dense forests now subject to intense, stand-replacing forests. Another change is the substantial loss of the aspen component in the higher elevation areas of the West, perhaps exceeding a 50 percent loss since the 1930's. Many other examples can be cited, such as expansion of forests into grassland areas.

So, we recognize the importance of seeking to restore such systems where it is both appropriate and possible to do this, and we know, clearly, that no action, as Dr. Bonnicksen said, is a decision in these dynamic ecosystems. There are costs and there are consequences associated with every choice that we make. In fact, much of the work that we are currently doing on national forest lands could be categorized as ecosystem restoration work, and let me just give you a few examples.

Under the National Fire Plan and the cohesive strategy, we are seeking to reduce excessive fuel loadings in Western Ponderosa Pine stands so that we can introduce controlled fire. We are

restoring open Longleaf Pine systems to the South to sustain unique ecological communities that they support. Under our national large-scale watershed project initiative, we are seeking to preserve functioning riparian systems and other key watershed values by working in cooperation with local communities and other groups. Through a system of 88 experimental forests designated by the Chief of the Forest Service, we are exploring a lot of ideas.

Real close to my home in Bend, Oregon, we created what we call the turn-of-the-century forests in one of these experimental forests, in partnership with our research community, to re-create these open, park-like Ponderosa Pine stands that where so prevalent in the late 1800's. These stands stand in stark contrast to the second-growth, dense stands adjacent to the project. Then there are the forest stewardship pilot projects, created by the 1999 and 2001 Appropriations Act. Most of those are restoration projects. We have researched natural areas. We have adaptive management areas. We research demonstration areas. We have a plethora of these kind of areas where we are trying lots of different things across the landscape on national forests.

Our involvement with communities and the public is more active than ever, in large part due to the creation of advisory Committees throughout the West. We know about Section 205 as the Secure Rural Schools and Community Self-Determination Act was created, and we are in the process of setting those advisory Committees up. In some other parts of the country, like the Pacific Northwest, we have advisory councils that are part of managing the Northwest Forest Plan. Finally, a lot of other special designations, like monuments, have advisory Committees, as well.

So, all of these authorities taken together are bringing people to focus on the restoration of our national forests. So, in our brief review of this legislation, we have identified several factors that we need to talk about as we move forward, and these include three or four things. We have got to talk about the scientific considerations for basing restoration on pre-European conditions. These are choices we make. What year do we manage for? Second, the level of review and oversight needed to make decisions about the management of National Forest System land; third, the inclusion of other specially-designated areas for consideration. I talked about some of those. Finally, the interplay between these land management plans and the historic plans that are talked about in the bill.

So, in conclusion, H.R. 2119 appears to have very similar objectives with our current management. I do want to emphasize, however, the restoration activities, whether they take place under this proposed bill, if it is enacted, are still subject to detailed analyses, and those must withstand administrative and judicial review. We support the goal of restoring our forests to sustainable conditions and we look forward to working with you further on this. Thank you.

[The prepared statement of Ms. Collins follows:]

Statement of Sally Collins, Associate Deputy Chief, Forest Service, U.S. Department of Agriculture

Mr. Chairman and members of the subcommittee, thank you for the opportunity to appear before you today. I am Sally Collins, Associate Deputy Chief for the National Forest System, USDA Forest Service. My comments today represent the

views of the Department of Agriculture on H.R. 2119, a bill to establish a program to designate, restore, and sustain historic native forests on national forest system lands, and for other purposes.

The Administration supports the worthwhile goal that H.R. 2119 embraces, but is still reviewing the bill. The Administration has serious concerns regarding the bill's fiscal impact—- specifically, the bill's use of Outer Continental Shelf revenues to fund the National Historic Forest Restoration Fund—- and the development of additional planning requirements. As soon as the Administration completes its review of the bill, we will communicate those concerns to the Committee. We welcome a discussion with the Committee and others on the important concepts proposed in this legislation.

H.R. 2119, National Historic Forests Act of 2001

Title I of the National Historic Forests Act of 2001 directs the Secretary of Agriculture to designate certain national forest system lands as historic forests. These forests are to be, or after reasonable restoration will be, representative of prehistoric or historic landscapes significant in the history and culture of the United States. These forests are to be restored and maintained over time through methods including timber management activities, plant and animal control, grazing, and prescribed fire.

Title II of the bill directs the Secretary to establish an Advisory Council on Forest Restoration that would make recommendations to the Secretary. These recommendations would include designation and restoration of national historic forests; review and approval of management plans; coordination needs with other Federal, state, and local entities; and study needs. In addition, the council would prepare an annual report to Congress, undertake forest restoration educational efforts, and prepare and submit a budget concurrently to OMB, the Department, and Congress as a related agency of the Department of Agriculture. The council would appoint a Director, who would appoint a General Counsel, and up to three additional staff that would report to the council. In addition, the council may request administrative support from the Department or contract with government or the private sector for supplies and services.

Title III of the bill directs the Advisory Council on Forest Restoration, in consultation with the Secretary, to establish local management advisory committees for national historic forests. The duties of the advisory committees are to recommend additional national historic forests to the Secretary and council; document the relevant reference forest; prepare management plans for the historic forests; monitor and assess the effectiveness of restoration activities; conduct studies; provide advice regarding forest restoration; encourage public interest and participation in forest restoration; keep state and local governments, Tribes, and private parties informed of the activities of the committee; and prepare annual reports.

The bill provides that the Federal Advisory Committee Act would not apply to the council or committee. The bill also provides for payment of $200 per day for council members and reimbursement of travel expenses for members of both the council and the local committees.

Existing Authorities

Authorities for the Forest Service to manage vegetation for a wide variety of multiple uses currently exist. These authorities include the Forest and Rangeland Renewable Resources Planning Act and the National Forest Management Act. These statutes also require the Forest Service to involve the public in defining desirable forest conditions that integrate resources across the landscape.

We also have authority to try some new approaches in implementing forest stewardship and restoration projects. Congress, in the fiscal year 1999 Interior Appropriations Act as amended by the fiscal year 2001 Interior Appropriations Act, authorized 56 stewardship end result contracts that allow private contractors to perform services to achieve land management goals for national forests that meet local and rural community needs. This pilot authority authorizes the exchange of goods for services, retention of receipts, and awarding of contracts on a "best value" basis.

Last fall Congress passed the Secure Rural Schools and Community Self–Determination Act of 2000. This important legislation recognized, among other things, the need to improve cooperative relationships among the people that use and care for Federal lands and the agencies that manage these lands. Section 205 of this Act establishes resource advisory committees to improve collaborative relationships and to provide advice and recommendations to the land management agencies on restoration and enhancement projects. We hope to have many of the resource advisory committees established and functioning in their role by October 1.

We feel these authorities will assist us in bringing people together to focus on restoring the sustainable condition of our forests.

Analysis

H.R. 2119 appears to have a similar objective of bringing people together at the local level to focus on the stewardship needs of our national forests. We appreciate this effort to explore new ways to build support for restoration of our national forests. Forest restoration activities are a priority in the Forest Service. Restoration activities, whether taking place under existing authorities or under H.R. 2119 if enacted, are subject to detailed analyses, and those decisions must then withstand administrative and judicial review.

The Administration supports the goal of restoring our forests to a sustainable condition. We would appreciate an opportunity to work with the committee to discuss how H.R. 2119 might be improved to complement the programs that the agency currently administers, while addressing the Administration's concerns.

In our brief review of this legislation, we have identified several factors to consider as we proceed forward. These include the following:

- Scientific considerations for basing restoration on pre–European settlement conditions;
- The levels of review and oversight needed to make decisions about management of national forest system land;
- The inclusion or exclusion of other specially designated areas from consideration; and
- The interplay between land management plans and historic forests restoration plans.

Forest Service Research and Development has designated 88 experimental forests across the country. In addition, over 450 research natural areas have been established on national forest system lands. Some of these areas might provide opportunities to work with the scientific community to pilot-test some of the bill's concepts. We would like to explore these and other opportunities with the Committee as it considers this issue.

This concludes my testimony. I would be happy to answer any questions that you may have.

Mr. MCINNIS. Thank you, Ms. Collins.

Mr. Simpson?

Mr. SIMPSON. Thank you, Mr. Chairman, and thank you, Ms. Collins, for your testimony. I appreciate it. As I said in my opening statement, this is meant to be a working draft and I look forward to working with the administration to try to address the concerns that you have. I understand that you have got to have a place to start, but as I understand from your testimony, it appears that the administration is supportive of the goals of restoring our historic forests.

You mentioned one of the concerns being the interplay between different management plans and the management plan that would occur here once a forest is designated as a historic forest; can that work between current forest planning and historic forests?

Ms. COLLINS. Sure, it can work. What we have got to do is coincide planning timelines and review timelines so that we are not creating more bureaucracy. We just need to be careful that we do not do that. There are ways that we can wrap ideas, like historic forests, into our land management planning process. There are a lot of opportunities to talk about what we can do here.

Mr. SIMPSON. Good. Does the administration have any problem with the funding that is in this legislation?

Ms. COLLINS. I think that there are a whole lot of things we have got to balance in terms of priorities. We support restoration 100 percent, and we are trying to do it in a lot of different ways, but there are a lot of concerns that we still have to explore in the funding area.

Mr. SIMPSON. Well, I look forward to working with you and the administration to try to address these concerns. Like I say, we can look at all alternatives. One of my main concerns when I came to this hearing today was that some people would see this as legislation to somehow allow for cutting the forests that would not otherwise occur; that this would be a smoke screen for timber harvest and commercial harvests or whatever. I do not know how you get around some people's perception of that, but I will assure you that the goal of this legislation is to restore our historic forests.

It was interesting, when I was out in Idaho just 2 weeks ago, one of the forest supervisors out there showed me some pictures that they had taken—that he found that were taken around the turn-of-the-century, around 1900; and they had gone back and taken some pictures from the same spot, and the computer would line them up. We have a tendency to think that everything pre-European was just thick timber all over the place, and somehow that we have destroyed all of this. But the reality was, if you compare these three or four pictures, the forest was much thinner, with much more diversity, back in 1900 than it is today, and there are a lot more trees in that place today than there was back then.

That is one of the reasons that we allow for harvesting when necessary, in order to thin out the forest, so that we can get the diversity of species and so forth, or whatever means we can use to achieve that. Otherwise, as was mentioned by Mr. Barnett, we are going to have a monoculture of trees in different forests that overtake them. As I said, I look forward to working with you on this. Thank you.

Ms. COLLINS. That is great.

Mr. MCINNIS. Mr. Otter?

Mr. OTTER. Thank you, Mr. Chairman. Thank you very much for your testimony, Ms. Collins.

Ms. COLLINS. You are welcome.

Mr. OTTER. I have got a question on this 88 experimental forests; why 88? Why not 188 or 48?

Ms. COLLINS. They are continually being created, as researchers are looking at the landscape of the kind of issues that we need to explore and experiment. So, they just represent a variety of problems and ecosystem types across the landscape. Some of them involve grasslands.

Mr. OTTER. How soon are we going to have some results on these?

Ms. COLLINS. We have a lot of results from a lot of them. All of them are doing things right now. I happen to have managed one of them, so I am aware of the kinds of things that are going on in our experimental force. It is just a variety of things. We look at different ways to prescribe burn, different intensities. We look at different ways to thin. It gives you a lot of opportunities to explore different ways to manage for wildlife species, habitat. And then the research, the partnership with research, they continually write up their findings. All of that is available. There is a lot of good information there.

Mr. OTTER. It has been suggested, and I think you were here during the previous testimony, that it would be—as Mr. Simpson has also suggested during his question and answering—that per-

haps this was seen as a smoke screen, in order to actually commercialize the process of management, commercialize the process, which does not frighten me. I have lived out West, where we have to live with our environment, and our environment includes people, and our environment includes a real economy that we have to deal with.

But, I wonder why we could not establish, if, indeed, that was a problem, why don't these funds just go directly into the U.S. Treasury, and the U.S. Treasury, then, is the one that gains by it? Otherwise, I guess we could just give it away to the log mills and to the lumber mills, and to the paper mills, but could we not establish a policy, if this was the big holdup, that the money just went right straight into the Treasury and bypassed the trust and bypassed the forestry trust?

Ms. COLLINS. So, you are talking about an alternative to the salvage fund? Is that what you are proposing?

Mr. OTTER. Yes.

Ms. COLLINS. We could talk about that. I think the deeper issue here is what we are really doing on the landscape. I think that is the deeper issue, and what we have to do is be in complete integrity on our goals and objectives for that treatment on the land. Whether or not you pay somebody to remove trees or they pay us to take them, or something in between; volunteers, our own crews, whatever it is to accomplish the objectives that we set out for treating that landscape, to me, that is the key. I have said to this Committee before, having a local advisory Committee has been a wonderful thing for me as a manager, because there is built-in oversight and review of people who really understand and care about communities, part of that process that brings that integrity and understanding. I think it is really important that that is sort of the underpinning. It is not so much where the money flows that is an incentive. It is what we are doing on the land that matters.

Mr. OTTER. I know, but that is what seems to be holding up a broad-based support.

Ms. COLLINS. Right.

Mr. OTTER. From one of the previous panelists and the folks that reside in his community of thought—is where that money goes. As far as I am concerned, I do not think it is that important, because they want us on the welfare system anyway, it appears. So let's get on the welfare system. In fact, I have suggested in this Committee several times that maybe what we ought to do, is we have got 35 million acres, 21.5 million acres of forests in Idaho, and if these other citizens from these other States would simply pay their tax bill, then we would not have a problem with it.

But you see right now, the Forest Service only pays in the State of Idaho 80 cents an acre, whereas Potlatch and Weyerhauser, and all those profit-mongers, pay $8.80 an acre. I would be satisfied with their management plan, if it is just for the commercialization side of it, just have them pay their tax bill, as well. Of course, I am not sure the Forest Service would appreciate that.

Ms. COLLINS. Do you want me to comment on that?

Mr. OTTER. I would only mention to you that the $16 million that we get right now would turn into well over $127 million just for

our taxes that we should be receiving off of the Federal ground. Thank you.

Ms. COLLINS. You bet.

Mr. MCINNIS. That concludes the testimony. Ms. Collins, I appreciate very much your time. As usual, you are welcome to the Committee.

Ms. COLLINS. Thank you.

Mr. MCINNIS. I also, once again, want to thank our participants that still remain. Thank you for making the effort to travel as you have to present testimony to the Committee.

To Mr. Simpson, Mr. Simpson, I ask that you continue to plow ahead. I think this is an excellent bill. I thought today's hearing was very informative, although I found myself distracted at times, reading your book, Doctor. Perhaps I should pay attention to what I am doing.

Mr. SIMPSON. Mr. Chairman, I want to thank you for holding this hearing, and we will continue to work on it. Again, I want to reemphasize with everyone that if they have ideas, suggestions, from both the minority side, the majority side, or from the general public, please come and give us your suggestions and talk to us about what we need to do to make this work, because I think the goal that we hopefully all want to achieve is there.

Mr. MCINNIS. Thank you. Thank you, Mr. Simpson. The Committee now stands adjourned.

[Whereupon, at 4:15 p.m., the Subcommittee was adjourned.]

The following items were submitted for the record:

1. Letter from Bryan Bird, Executive Director, Forest Conservation Council
2. Letter from Mary Chapman, Executive Director, Forest Stewards Guild

FOREST CONSERVATION COUNCIL

Forest and Forest Health Subcommittee
1337 Longworth House Building
House of Representatives
Washington, DC 20515

June19, 2001

RE: H.R. 2119 National Historic Forests Act of 2001

Dear Committee Members,

The Forest Conservation Council is a member-based, conservation organization devoted to protecting and restoring the native biological diversity of forests and woodlands throughout the United States. We believe that the vast array of services provided by healthy forest ecosystems are vital components of sustainable economies and essential for the survival of countless species.

FCC is strongly opposed to the National Historic Forests Act of 2001 (NHFA), H.R. 2119, introduced by Representative Michael Simpson (R-ID). This bill simplifies forest restoration, recognizes only structure and tree species as components of a forest ecosystem and provides no emphasis on ecological or biological considerations in doing "restoration." The primary tools proposed for restoration, timber harvest and commercial and pre-commercial thinning, will not restore forest ecosystems but only create damage to wildlife and plant habitat as well as watersheds.

The problem with mixing commodity production and restoration is simple: the end goals are not achieved because economic incentives dictate restoration projects. More and more, the USDA Forest Service is using money for fire risk reduction to conduct timber sales on federal forests. The National Historic Forests Act will simply reinforce this irrational cycle. Further, Congress has already appropriated the money to address forest fuel buildup in the National Fire Plan. That money should be used to clear brush and other flammable fuels along private/public land boundaries and not to remove large diameter trees or for other commercial harvest activities.

Instead, Congress should focus on real, ecosystem-based restoration that prioritizes the following: removal of environmental stressors such as commercial timber harvest, reintroduction of fire, road decommissioning, removal of exotic species, and the reintroduction of native species. Such an approach will not be based on commodity production but genuine, labor-intensive service contracts. Representatives Cynthia McKinney (D-GA) and Jim Leach (R-IA) have introduced such legislation, H.R. 1494, the National Forest Protection and Restoration Act. Any restoration bill should encompass the qualities of that legislation.

Sincerely,

Bryan Bird
Executive Director

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June 15, 2001

Chairman Scott McInnis
House Resource Subcommittee on Forests and Forest Health
1337 Longworth House Office Building
Washington, D.C. 20515-6205

Dear Chairman McInnis:

On behalf of the Forest Stewards Guild, I would like to submit comments regarding H.R. 2119 for consideration by the House Subcommittee on Forests and Forest Health. The Guild is an organization of practicing foresters and other resource management professionals. The mission of the Guild is to promote ecologically responsible resource management that sustains the entire forest across the landscape.

Forest "restoration" is a well-intended concept, based on a developing body of scientific research and practices, which is unfortunately subject to substantial abuse. The term has a feel-good quality that can render it immune to critique, but the "restoration" of forests is a young field fraught with uncertainty. Nevertheless, in the southwest the term is now applied irresponsibly to all manner of harvesting operations, whether focused on comprehensive restoration approaches or simple timber extraction with little if any scientific restoration basis.

Restoration science is in its infancy, and at present does not provide an adequate scientific basis for a large-scale government management program. For example, one famous approach developed in the vicinity of Flagstaff, Arizona, relies on the identification of old, large stumps to guide the restoration of historic structure in ponderosa pine forests. However, despite the laudable "pioneer" influence of this approach, there is growing disagreement over its targets and methodologies. Evidence shows that relying simply on the presence of stumps as a guideline may result in an excessive removal of trees that does not result in a "historically accurate" stand and severely restricts future management options. Moreover, this limited research has been used widely in the region to provide justification for large-scale removals of trees with little relation to comprehensive restoration needs, with an impoverished forest being the result. The gap between initial enthusiasm over this approach and the increasingly apparent dangers of it from a forest health perspective demonstrates the need to approach restoration cautiously. Research and experimentation, yes. A leap to full-blown management? No.

The "restoration" of forests to a pre-settlement, pre-"European," pre-historic, or historic condition is a concept that is coming under increasing scrutiny and criticism. In the southwest, a pre-European forest might have been extant in the 1400s. The ability to identify forest characteristics adequately for the purposes of restoring forest structure, composition, and/or function for that time period is highly questionable if not impossible. It seems almost absurd to discuss the notion of restoring "pre-historic" forests. Moreover, at any given time in history, there would be a wide

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variety of forest structures and compositions present on the landscape - from young to old, from complicated to simple - always in a state of flux. Which is a priority? The bill seems to take a very simple-minded approach to these issues.

Even in cases where forest characteristics of an earlier epoch could be reconstructed faithfully, one must consider the fact that the locking of a forest stand or stands into that framework will only be executed successfully at enormous cost over time. Such an effort must come in the face of ecological processes that always give rise to change in all forest stands. This would be just the cost of management, let alone the costs of monitoring and assessment through time.

A number of particular features in the bill also raise concerns:

- Natural disturbance events and patterns are given very low priority, to the point that they may be substantially restricted. This seems a strange feature, given the bill's objective of "restoring" "native" forests, in which such natural disturbances must have played a substantial and dramatic role.
- Grazing is noted as a potential restorative practice. Given the problems associated with grazing in relation to forest and soil degradation throughout the west, it is difficult to imagine the efficacy of utilizing grazing as a restoration tool.
- The servicing of society's contemporary need for goods and services, as part of restoration goals as defined in the bill, poses a significant challenge to restoration targets. Resource extraction by its very nature means the removal of value and the transformation of a resource. The pursuit of goods and services has been instrumental historically in the loss of native forest values. How "restored" forests will be maintained in a resource extraction context is difficult to conceive.
- Given lack of knowledge, what will the benchmarks be for "achieving" restoration and "maintaining" it?

This bill begs the question - why not simply manage our national forests better for more natural conditions as a matter of general policy, under existing guidelines, at no extra cost to taxpayers? Since logging would be allowed in areas created under the bill - wouldn't such logging, targeting a potentially ever-shifting and costly chimera of a "restored" forest, only add fuel to the existing fire of below-cost timber sales? The Forest Stewards Guild includes private foresters throughout the United States who have demonstrated the ability to manage forest for a wide range of natural conditions that meet the needs of most if not all wildlife species. These foresters provide an example of harmonious interaction of people and forests that would easily be replicable on national forest lands.

A greater effort to understand forest restoration, in the form of research on a wider variety of sites, certainly merits funding. Such an effort would provide insight into the longer-term costs and management realities of identifying and maintaining particular historical forest conditions. However, at this time, basing a large-scale management program on the vagaries of restoration science, as proposed in H.R. 2119, would be precipitous.

Sincerely,

Mary Chapman

Mary Chapman
Executive Director

cc: Ranking Minority Member Hon. Jay Inslee

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