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for the

NATIONAL ASSOCIATION OF FOREST SERVICE RETIREES

before the

House Committee on Resources
on the subject of

FOREST HEALTH CRISIS IN THE
SAN BERNARDINO NATIONAL FOREST

Lake Arrowhead, CA

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Mr. Chairman and members of the Committee:

On behalf of the National Association of Forest Service Retirees thank you for the opportunity to testify before you today on issues relating to management of our National Forests. The association has members located throughout the nation who possess a unique body of knowledge, expertise and experience in the management of the National Forests, forestry research, and state and private assistance. I come before you today as someone who has devoted much of my professional career to fire management. As Director of Fire and Aviation Management and as Deputy Chief—State and Private Forestry for the U.S. Forest Service, I had responsibility for fire protection on most of our Nation's wildlands, both public and private. In retirement I chair the Watershed Fire Council of Southern California.

The National Association of Forest Service Retirees believes that management of our National Forests must be based on sound science, technical feasibility, economic viability, and common sense. Unfortunately too much of today's debates about these valuable lands is based on myths and a "Let's pretend" approach.

In my brief time with you I would like to address just a few of the issues and potential solutions. They relate to the situation we find here in the Lake Arrowhead area and most of our western wildlands. The local citizens and fire professionals will tell you they are sitting on a powder keg waiting to explode. With the number of dead and dying trees and the volume of vegetation on the ground, all intermingled between houses, it is just a matter of time before disaster could strike. Any fire escaping initial attack and burning into this beetle-killed area could be catastrophic. Devastation to the important watersheds, critical wildlife habitats, homes, businesses and personal property could set new records in terms of losses. The potential entrapment of citizens is also of grave concern. Since my retirement, 10 years ago, each year I have become increasingly more concerned with fire fighter safety, especially as I view the continuing decline in the health of our forests. There are locations to which you simply cannot, in good conscience, dispatch personnel. Wildland fire fighters are dedicated to protect lives, property and natural resources. However, under the conditions we find our forests today, their safety must be of critical concern. Even with all our modern equipment, helicopters, aircraft, advanced planning and highly trained firefighters, there is high potential for conflagrations.

Moisture Stress

The forested areas of the San Bernardino, and other southern California forests are on the borderline of tree growth, because average annual precipitation is just over 12 inches. As a result the trees are in moisture stress any time precipitation is below normal. When stress is increased due to drought or overcrowding, the trees are especially vulnerable to insect attacks and to the problems of high ozone levels (once called "The

X Disease"). Foresters, entomologists and plant physiologists have long recognized that maintaining low stand densities in all size classes is essential to maintaining forest health in this particular situation.

While there have been periodic outbreaks of insects, an active sanitation/salvage program during the 50's, 60's, and 70's served to keep the stands relatively thrifty. Unfortunately, the environmental movement that opposed logging disrupted the program on the San Bernardino and adjacent forests. Consequently the Big Bear Timber Company at Redland closed, so there is no ready market for thinnings except for firewood. There is adequate annual growth in the local forests, along with thinning and beetle and disease salvage, to support a modest-sized wood products industry. Effective forest management to reduce the hazardous fuel loadings in this area will be impossible without a viable forest products industry. An assured stable input of raw material would find markets for much of the wood that needs to be removed from the forest, with the larger material going to lumber and the smaller material to firewood and/or energy production.

Treatment of Large Landscapes

Some suggest that the answer to destructive wildfire is to let them burn – just protect a little area around communities and residences and let nature take care of the rest. This suggestion fails the common sense test in many ways.

It ignores the damage that destructive fires do to watershed, wildlife and fish, recreation, and other forest values. We know that fire causes many soil types in the area to become impervious to water. Precipitation on these hydrophobic soils generates overland flows of water, soil and debris that can travel great distances. Communities, fish and precious water supplies are equally at risk from these after-fire floods and mud flows created in unprotected and unstable watersheds, miles from the communities.
It ignores the fact that our National Forests are intermingled with private lands, and fires burning on these Forests represent a threat to the private land values. The homes and forested land are intermixed. They do not form a separate interface where homes can easily be separated from forest fuels.
It ignores the impact of smoke from forest fires on air quality and human health. The towns in and around last year's fires can provide ample testimony on the impact of fires on the health of the inhabitants and their quality of life.
It ignores the practical problem, while individual houses that have defensible space can often be protected, that when fires come at a community on a wide front there are simply not enough resources to take advantage of the defensible spaces around many homes at the same time.

It ignores the complexity of hundred of miles of urban interface on the San Bernardino to be managed and protected, with little or no discrete stratification of fuel loading and types between the general forest and human habitations.

Northern Arizona University professor, Dr. Wally Covington, argues the "frequent fire forests", such as the San Bernardino, "are so degraded and fragile that they are no longer sustainable, and a liability rather than an asset to present and future generations." Treatments, he suggests, should consider landscapes of 100,000 to 1,000,000 acres. The entire fuel picture must be considered – the massive brush fields as well as the forested areas. Starting with highest risks, we should work back into the interior with fuel modification to where the costs of fire and values at risk reach some sort of equilibrium. The consequences of inaction will be to give residents a false sense of security that may put property and even their lives in danger.

Similar rationale applies to forest insect epidemics. Beetles fly wherever they find suitable trees, and they respect no boundaries. Allowing a beetle epidemic to build up in the interior of a public forest jeopardizes private property as well. Thinning a stand increases the availability of soil moisture. Bark beetle populations can be held in check by modifying stand density because beetles do not become established in vigorous trees. Thinning is the only reasonable means to provide some insurance against the inevitable drought and lessen the effects of bark beetle infestations.

Treatment of Large Trees

Bark beetles are not deterred by the thick bark of large trees. Evidence of this, in the form of dead 400-year-old ponderosa pine, pervades the San Bernardino. These dead trees, full of pitch and dried out by summer heat, will make a spectacular display of fire behavior when certain weather conditions and ignitions combine. The dead and down material will then generate an inferno, and the standing dead will act like Roman candles, scattering spot fires for miles ahead of the fire, making direct attack impractical and endangering life and property.

While some may argue that big trees should not be removed because they are fire-resistant, history has demonstrated that big trees, while relatively resistant to fire, also burn with high intensity under very dry conditions and where ground fuels have built up. The Tillamook Burn in Oregon, at 355,000 acres, and the Yacoult Burn in Washington, of 1,000,000 acres, were mostly old, large trees in much cooler moist coastal environments. The fires killed the large trees as well as the small ones.

Restrictions on harvesting a given size or age of trees interrupt the succession necessary to maintain the basic health of the forest. The only responsible treatment is to remove the dead material and ladder fuels to an acceptable fuel loading, harvest the beetle-infested trees to prevent further spread, and thin the remaining stand to a density that reduces moisture stress and provides some resistance to drought. Size of individual trees must not be a deterrent to doing the correct silvicultural job.

The “Don’t Touch” Fallacy
Many people reject the idea of human intervention in the forest. The common view of the forest is one of stability and persistence, and we find a reluctance to intervene with this perceived static condition. But any knowledgeable observer of forest conditions recognizes that forests are not static, are never “in balance”. They are constantly changing. The status quo view might be summarized as, “Let’s pretend there are only a few Native Americans in the country and manage our forests as they were prior to European settlement.” In their view, roads, timber harvesting, fire protection, recreation developments, and other human activities are the cause of our current problems. Forget about managing the forest, just leave it alone and everything will be just fine.

But Mr. Chairman, common sense tells us that we cannot ignore the presence of 280 million American in this country, nor ignore the demands that they make on our forests. There can be no more vivid example of the “don’t touch” fallacy than right here on the San Bernardino National Forest and in much of the surrounding private lands where human impacts and moisture stress are at their highest.

Over 350,000 acres of both public and private land in the San Bernardino and San Jacinto Mountains face drought-related mortality ranging up to 80 percent of the trees. Insisting that we let nature take its course in this highly populated and developed area, with severe drought on top of massive bark beetle infestation, is a certain disaster to life and property in the making. What will we be able to say to the American people if we do nothing, letting nature take its course, which results in substantial loss of human life?

Threatened, Endangered and Sensitive Species

The southern rubber boa, Charima bottae umbratica, (State Status – Threatened; Federal Status – Sensitive) resides in the San Bernardino, San Jacinto and San Gabriel Mountains above 1,500 meters. This creature will very likely become an issue when land management agencies propose forest health prescriptions. The Riverside County Multiple Species Habitat Conservation Plan lists a number of threats to the viability of the species; firewood harvesting, off-highway vehicle use, fern harvesting, commercial timber harvesting, fire management, skiing, and federal – private land exchanges. The fact that wildfire misses the list is a pathetic manifestation of a basic lack of understanding of the effects of fire on wildlife habitat. Reliable estimates of habitat loss of the northern-spotted owl due to the Biscuit Fire in Oregon last year amounted to over 80,000 acres. Owls are mobile, and an individual can escape a fire to take up residence elsewhere. But the lethargic, slow, earth-bound boas have no escape from even a moderately hot ground fire, let alone a massive conflagration that appears possible in the San Bernardino and San Jacinto Mountains. Habitat-destroying fire could be disastrous to the species.

We don’t propose to ignore the rubber boa’s habitat needs, but one must consider the long-term effects of no action when assessing the short term. The Conservation plan describes the habitat destruction of the southern rubber boa as a consequence of moving logs around, logs that the extremely secretive boa uses for hiding. A schedule for forest management activities could be timed when the species are less active – in the middle of the summer and in the winter, for example. In addition, only a small portion of the forest will be affected by fuel treatments at any one time. In any event the imperative is to carry out the necessary treatments whenever habitat loss in the long-term will exceed the immediate effects.

Another commonly held argument against active management of habitat at risk harkens back to “The No Touch Fallacy”. Wildfire (the claim goes) being “natural” is more acceptable than human intervention, even if “unnatural” human intervention is less damaging to the habitat than the alternative of no action. This amounts to sacrificing species health only for the sake of maintaining a misguided dogma.

Forest Health Funding

Assured annual appropriations must become an integral component of forest health maintenance. On-again, off-again funding for forest health means that the field loses the necessary professional skills and that research into forest health problems dries up. It also precludes the development and maintenance of markets for material that needs to be removed. The Forest Service must devise a comprehensive programming and budgeting system that addresses all the aspects of forest health, including a prioritization scheme that sends the money where it's most needed. Funding must also be available to all forest supervisors to maintain minimum skills necessary to monitor and treat unhealthy forest conditions. A forest health program plan, once developed, should be a budget line item for Congressional appropriations.

Direct thinning projects have an important role. They are expensive, but effective. Funding needs to be continued, but common sense tells me there is little likelihood that the Congress can provide appropriations at a level needed to make significant progress.

Fortunately, substantial portions of the stands that need treatment have economic value. There are potential markets for much of the material that needs to be removed, as lumber or other forest products, or in the production of energy.

Regarding the production of energy, two relatively new developments could be brought into play on the San Bernardino. One is the small power generating plant using small diameter forest residues, a demonstration of which is currently in the field testing stage by the Forest Products Lab; the other is the slash buncher now in use in the central Sierra, which binds small material in bunches for delivery to power plants. The San Bernardino area, with its developed infrastructure and copious supplies of raw material, provides a perfect location for additional field-testing of these activities. Additional funding for the Forest Products Lab for research and development would help refine these technologies to make them more lucrative as important adjuncts to forest health operations.

Much can be accomplished in terms of stand management, while also contributing to the economy of local forest communities and to our energy needs, if the Agency is provided the flexibility to market commercially valuable material.

Now I know the charge will be made that this is just another excuse for letting the timber industry back in the door, but using the economic value of this material is the only way the job is going to get done. It is also consistent with the statutory purposes for which the National Forests are established.

Recognizing the immense cost of restoring forest health, we must not shrink from having forest products help pay for the cost. Recent studies by the Forest Service demonstrate that removing some commercially valuable material along with small material of negative value, results in better forest conditions and lower costs. Selling commercially valuable material, where it makes silvicultural and economic sense, will give us more bang for the appropriated buck.

The Case for Active Forest Management

Mr. Chairman, clearly the forests of the country were not sustainable in the face of the level of forest fire activity that was occurring at the start of the 20th Century. The story of fire suppression and forestry in the last century is in fact a great success story.

In the early 1900's we were burning as much as 50 million acres per year. Today we consider 5-6 million acres as a bad fire year. And let us look at the results. In the early 1900's, removals from our forests exceeded growth. Today, in spite of significant population increases, growth exceeds removals by substantial margins. Private firms and individuals invest in long-term forest management because there is some certainty that the investment will not be lost to fire. Water quality from our forested lands remains high. Populations of deer, elk, and other game species have increased dramatically. Recreation use of our National Forests has increased. By any objective measures, the condition of our forests has improved dramatically over the last century.

But our forests today face a growing threat of loss to fire, insects and disease as the result of overstocking over wide areas. It is essential that efforts to deal with this problem be accelerated.

Foresters and fuels management specialists on the National Forests know how to create stand conditions that reduce their vulnerability to fire and insects. They cannot fire proof these forests, but they can reduce the likelihood of devastating fires and reduce the damage resulting when fires do occur.

Forests need to be thinned to reduce fuel loading and the likelihood of crown fires. We know quite a bit about the stand conditions that are required. The Agency needs to be provided with the full range of tools necessary to achieve these conditions. Stands must be treated not only adjacent to communities, but also throughout many of the vulnerable stands. Artificial limits on the size of trees to be cut must be avoided.

Fire can and should be used as one of the tools for reducing excess fuel loading, but it is expensive. Pretreatment by mechanical removal is required in many areas before fire can be used without excessive damage and liability risks. Smoke management is a major issue. As a practical matter, there will be relatively little increase in prescribed burning under current clean air regulations. I will let the members speculate on the likelihood of a significant relaxation in the regulatory arena.

Mr. Chairman, many of the views of the National Association of Forest Service Retirees on this issue are documented in the publication Forest Health and Fire an Overview and Evaluation. The publication is available in electronic form at www.fsx.org/NAFSRforesthealth.pdf. I ask that it be included in the record.

Thank you again for the opportunity to take part in this critically important hearing. I would be happy to answer any questions.