

Committee on Resources

Subcommittee on Forests & Forest Health

Witness Testimony

Statement of Stanley F. Hamilton

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and the Idaho State Forester

before the

U. S. House of Representatives

Committee on Resources

Subcommittee on Forests and Forest Health

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A DISCUSSION OF FOREST HEALTH ISSUES AND THE DOUGLAS-FIR BARK BEETLE INFESTATION NEAR COEUR D'ALENE, IDAHO

Background - The Department of Lands

My name is Stanley F. Hamilton. I am Director of the Idaho Department of Lands, and in this capacity, I also serve as the Idaho State Forester. I am a Past President of the National Association of State Foresters, and currently serve that organization as Chair of the Forest Health Committee.

The Department of Lands is responsible for the management, protection, control, and disposition of Idaho's 2.4 million acres of endowment trust land and associated resources. These lands were granted to Idaho at statehood by the United States Congress as a sacred trust to support selected public institutions, primarily public schools.

The Department's primary mission is to maximize long-term revenues to the endowment funds for the beneficiary institutions consistent with sound long-term management practices and land capabilities. In addition, the department provides wildfire protection on about six million acres of state, private, and federal lands, and exercises regulatory responsibilities relating to forest practices and water quality.

Maintaining and enhancing forest health and productivity are principle goals of all department activities.

Background - Idaho Forests

Idaho is blessed with some of the most productive forests in the nation. These forests support raw material for Idaho's 170 primary wood processing plants, habitat for a multitude of game and non-game wildlife, clean water for fish habitat and domestic and agricultural uses, recreational opportunities, and the scenic qualities for which Idaho is famous.

Idaho has nearly 22 million acres of forest land.

74% National Forest (16.3 million acres)

10% Other public agencies including the State of Idaho, Bureau of Land Management, and Bureau of Indian Affairs (2.2 million acres)

11% Small, non-industrial tracts owned by over 60,000 individual owners (2.3 million acres)

5% About a dozen timber companies own the remaining (1.2 million acres)

Management of these forests varies greatly depending on ownership and individual objectives.

Federally owned lands are generally managed under the "multiple use" concept.

State endowment lands are managed on a "primary use" basis in accordance with the management mandate stated above. For the 750,000 acres of commercial forest land, the primary use is timber production, currently sales of 165 million board feet annually.

Industrial private forest lands are managed almost entirely for timber production.

It is difficult to characterize the management of non- industrial private forest lands in Idaho due to varied management philosophies. These ownerships are typically smaller acreages which are, depending on ownership objectives, managed for timber production, grazing, wildlife, aesthetics, rural residential homesites, or some combination thereof.

Although they represent only 16 per cent of the total forest land ownership, private forest lands deliver a disproportionate share of timber products to supply Idaho's forest industry. Between 1980 and 1990, these lands accounted for an average annual harvest of 664 million board feet, about 46 per cent of Idaho's total timber harvest.

In Calendar Year 1997, the situation was even more disproportionate - the private sector forest lands yielded some 879 million board feet, some 65.6 per cent of the total Idaho harvest.

CY-97

IDAHO TIMBER HARVEST

879 MMBF 65.6% Total Private Sector Harvest

254 MMBF 19.0% Forest Service Harvest

206 MMBF 15.4% State (1 81 MMBF), BIA (1 7 MMBF),

BLM (8 MMBF) Harvest

1,339 MMBF 100.0% TOTAL CY-97 IDAHO HARVEST

Forest health Issues -- Generally

With that brief background about Idaho and the Idaho Department of Lands, I would like to review some of the forest health issues we face in Idaho, and the factors that caused them.

Overall there are many forest stands in Idaho that are healthy and productive.

Many forest health "problems" are perceptions of natural processes that have been made more apparent by the drought conditions of the 1980s and early 1990s, well publicized large fires, and the increasing daily contact of the public with the forest environment.

There are however, large tracts of Idaho forest that currently suffer pest problems of an unprecedented scale, and are clearly in decline. This is due to a variety of reasons, some natural, and some caused by human activity.

Historically, wildfires have shaped the character of the forest more than any other single factor -- with the possible exception of precipitation. Wildfires, however, conflicted with the objectives of the early white settlers, and the control and suppression of such fires became a priority.

The great fires of 1910, which burned over 1,000,000 acres in Idaho, and killed 87 firefighters, focused national attention on the problem, and gave impetus to modern wildfire control efforts under the leadership of the newly formed U. S. Forest Service. The aggressive, effective wildfire control efforts of the 20th century have safeguarded the forest resource for human use -- but policy and practice have had unanticipated side effects.

The virtual elimination of fire as a regularly occurring event in Idaho forests has resulted in shift to climax, shade tolerant species.

Fire serves as a natural control for many insects and diseases by eliminating the most vulnerable trees.

Without periodic fires to maintain and thin the more resistant seral species forests become overstocked with more insect and disease susceptible climax species. Competition for moisture and nutrients increases. The resulting stress makes trees more vulnerable to attack by insects and disease. This leads to major insect epidemics, and the return of catastrophic fires throughout the west in recent years.

Most of the seral, fire resistant species such as pine and larch are also the most valuable trees for timber. In the past these species were typically harvested first. Now many Idaho forests contain a high percentage of shade tolerant species which are more susceptible to the Douglas-fir tussock moth, western spruce budworm, root-diseases, mistletoes, and other destructive agents.

While human activities have in some cases contributed to forest health problems, forest management activities can often help keep forest pests in balance and enhance overall health.

Historically, bark beetles attacked mature and over-mature trees, killing them and playing a major role in the life cycle and structure of forests. Their activity contributed to nutrient recycling, provided fuels for

fire, and helped set the stage for the establishment of new stands and forests.

Periodic fires, some of devastating proportions, clear the forest of accumulated debris and prepared the site for growth of the new forest habitat. Wildfires, however, often destroy valuable timber resources that represent jobs and security to woodworkers and the 60,000 non-industrial private forest land owners in Idaho,

Dead and dying timber is a valuable resource that, left unharvested, will go to waste, contribute to the spread of insects and disease, and increase the risk of catastrophic fires.

Idaho is one of only a dozen states with a comprehensive forest practices act. We are a recognized leader in the area of forest practices program effectiveness.

Our mandatory Forest Practices Act rules are designed to maintain water quality, soil productivity and aquatic and wildlife habitat through the application of Best Management Practices (BMPs).

Our law also requires the prompt salvage dead or dying timber caused by insects, disease, fire or other natural causes, within economic and resource protection constraints. Section 38-1304(l)(f), Idaho Code, is primarily directed at federal lands as salvage routinely occurs on state and private lands.

The threat of continuing or accelerated bark beetle outbreaks can be reduced by thinning of overstocked stands, and the prompt salvage of infested trees or logs. Removing stressed and infested material from the forest, reduces beetle populations the associated stress on remaining trees.

The prompt removal of trees that are windthrown or seriously weakened by some other agent is equally important. When left in the forest these weakened trees serve as the focus for new bark beetle outbreaks. Identification of threatened areas through surveys, and subsequent salvage is a principle tool for maintaining forest health.

Each year extensive surveys identify trees killed by insects, disease, or windthrow. As groups of dead and dying trees are found, sales are prepared and sold before the - wood deteriorates. When the mortality is caused by bark beetles, we can often remove the insects from the woods through the salvage effort and thus prevent further attacks.

Salvaging distressed timber is critical if the Department is to meet its mission of maximizing revenues to the endowment funds.

Salvage efforts also improve overall forest health.

These efforts, coupled with our active timber management program, are establishing endowment forests that are healthy and resistant to attack by insects and diseases.

North Idaho's Newest Bug Problem

North Idaho has a new bug problem. We have a situation in Idaho's northern panhandle where Douglas-fir trees -- on an estimated 150,000 acres on the Idaho Panhandle National Forests -- are under attack by the Douglas-fir bark beetle. Currently, the problem is mostly confined to national forest lands, but it poses direct threats to adjacent private lands.

This current insect outbreak constitutes an emergency situation far exceeding normal levels. Forest entomologists call this the most severe Douglas-fir beetle infestation in northern Idaho since the 1950's.

The Forest Service must consider immediate action to reduce the potential risk of high intensity wildfire and bark beetle Infestation onto adjacent private lands. In this situation, a need exists to consider alternative arrangements for compliance with the National Environmental Policy Act (NEPA).

The bill before you -- the Federal Forests Emergency Act of 1999 -- will authorize the Council for Environmental Quality to expedite the NEPA process during emergency insect and disease infestation situations.

Setting the Stage

Climatic conditions set the stage for this Douglas-fir bark beetle outbreak. An ice storm in November 1996, followed by near record snowfall during the winter of 1996-1997, caused extensive damage to the forests of northern Idaho.

Thousands of damaged and downed trees provided ideal conditions for various bark beetles, including the Douglas-fir beetle, to breed and build up populations.

An unusually hot, dry summer in 1998 only contributed to an inevitable outbreak. Under these conditions, Douglas-fir beetle populations exploded from normal, endemic levels to epidemic levels.

Our attention now focuses on the Douglas-fir beetle. However, the same climatic conditions also damaged or downed other conifer species as well. As a result, we have seen increases in various bark beetles that attack these species. In particular, the pine engraver beetle is attacking ponderosa and lodgepole pine.

Could anything have been done to prevent this Insect outbreak? Yes, prompt salvage and clean up of downed and damaged trees would have eliminated the food source for bark beetles. It may not have totally prevented an outbreak, but it would have greatly reduced the magnitude of what we are now experiencing.

What Has Been Done About the Douglas-fir Bark Beetle Epidemic?

NIPF Lands.

Many non-industrial private forest owners responded quickly in cleaning up following the winter storms. Extensive educational efforts encouraged landowners to protect undamaged trees by removing the down material that provides the breeding site for bark beetles. In some cases, this was also a necessity in order to regain access to rural homesites and restore downed electrical power.

Fortunately, educational efforts combined with favorable timber prices prompted quick salvage for many landowners.

As a response to the need to clean up stands, the private timber harvest in Kootenai County, the area surrounding Coeur d'Alene that sustained the heaviest ice storm damage, jumped from 51 million board feet in 1996 to 85 million board feet in 1997.

Certainly not every one of these landowners intended to harvest timber that year. However, this additional volume of timber brought them a conservatively estimated financial return seven million dollars. That income sent kids to college, paid mortgages, and maybe included a vacation.

Consequently, very limited Douglas-fir bark beetle activity was observed on nonindustrial private lands during 1998 surveys. Keep in mind, also, these lands typically have a lesser component of Douglas-fir in highly susceptible age and size classes.

Industrial Private Lands.

Timber companies have the ability to respond very quickly in situations like this. In most cases, industry sent out logging crews right away to salvage down, damaged timber and beetle infested trees. As a result, losses due to catastrophic events including bark beetles are usually minimized on industry lands.

State Endowment Lands.

Because of our mission to maximize revenues over the long-term from state endowment lands, the Department of Lands also responds quickly to salvage distressed timber. We commenced salvage timber sales beginning in 1997 to remove damaged tree and are continuing today to harvest beetle killed trees.

National Forest Lands.

The National Forests, particularly the Idaho Panhandle National Forests, sustained heavy damage during the storms of 1996-97. Although the Forest Service clearly recognized the need to conduct salvage and clean-up activities, their plans were threatened and eventually stopped by appeals and lawsuits. Forest entomologists warned of the potential consequences of not following through with clean-up efforts.

Aerial surveys conducted during the summer and fall of 1998 detected an epidemic level of Douglas-fir bark beetle activity. Moreover, field surveys indicated that for every attacked tree detected from the air, there was -an average of eight (8) additional attacked trees not yet visible from the airplane.

Therefore, the combination of climatic events and the lack of adequate clean up of storm damaged timber set the stage for the Douglas-fir bark beetle outbreak that we are now experiencing in Idaho's panhandle.

Douglas-fir Beetle Activity as Determined by Aerial Detection Surveys on US

Forest Service National Forest Lands and Adjacent State and Private Lands

Flown July and September 1998

NATIONAL

FOREST JULY FLIGHT

Trees Acreage

killed

Kaniksu 1,025 471

Coeur 2,351 3,104
 d'Alene
 St. Joe 3,600 1,979
 Clearwater 25,121 26,734
 Nez Perce 36,783 16,333
 Bitterroot
 (Idaho 6,072 4,297
 Portion)
 TOTALS 74,952 52,918
 SEPTEMBER FLIGHT*
 Trees Acreage
 killed
 3,425 2,171
 34,454 13,611

* The entire forest was not resurveyed. Only that portion where a concentration of beetle mortality was evident was flown. If the entire area had been resurveyed, the difference between the surveys would be even greater.

What Does the Forest Service Propose to do?

In mid-January 1999, the Forest Service released a Douglas-fir Beetle Project Draft Environmental Impact Statement that addressed the situation on the Idaho Panhandle and Colville National Forests.

I applaud the Forest Service for putting together a document of this magnitude, over 900 pages of environmental analysis, in such a short period.

I am also pleased to let you know about the extensive cooperation between the Forest Service and the Idaho Department of Lands in dealing with this situation.

In the spirit of partnership and cooperation, the Idaho Department of Lands has taken the lead in contacting private forest land owners about the problem. We are explaining the problem and providing technical

assistance to them. Along with on-the-ground assistance, a series of public meetings hosted by our two agencies attracted over 500 participants to discuss this problem.

The Draft Environmental Impact Statement for the Idaho Panhandle National Forests estimates 150,000 acres of timber under attack by the Douglas-fir beetle with a potential of growing to 250,000 acres.

The Forest Service proposes treatment activities, including timber salvage, watershed restoration, vegetative restoration and fuels reduction on approximately 25,000 acres.

Revenues from the harvest of an estimated 150 million board feet will help fund watershed restoration projects such as road closure and obliteration and improve substandard roads that pose a risk to water quality.

Fuels treatment will reduce the risk of catastrophic wildfires that may start in the accumulation of fuels created by beetle-killed trees.

Since only a fraction of the total acres of bark beetle attack will receive some degree of treatment, projects are proposed primarily in areas where national forest lands lie in proximity of private lands.

The Forest Service recognizes a responsibility to protect adjacent private lands from beetles leaving national forest lands. Therefore, through an Experimental Use Permit from EPA, the Forest Service is providing a pheromone treatment on 1,700 acres of neighboring lands that will protect high risk Douglas-fir stands.

As stated earlier, most of the storm damaged timber on state and private forestlands was salvaged immediately following the severe winter of 1996-97.

Many of the private landowners who acted quickly to reduce the threat of bark beetles on their lands are now being attacked by beetles coming from adjoining national forest lands. Private landowners are justifiably concerned about these new attacks as they stand to lose additional timber if the Forest Service fails to implement their treatment plans in a timely manner.

Perhaps the most Important concern from private forest owners arises from the threat of wildfire that would start on national forest lands and burn toward the private land. Since many of these people have residences on their forested tracts, the threat of life and property loss is of paramount concern to them.

As director of the state agency with primary wildfire suppression responsibility for these lands, I am concerned about sending firefighters into these situations where fire behavior will likely be more intense and unpredictable due to excessive fuels.

Conclusion.

Just one year ago, the Council of Environmental Quality granted alternative arrangements for NEPA requirements for a similar emergency situation when a windstorm swept through eastern Texas.

As a result, downed and damaged timber was salvaged before it lost value, the threat of high intensity wildfires was reduced, and a potential bark beetle infestation was averted. This was the first time ever for the Council of Environmental Quality to grant alternative arrangements under NEPA for the removal of timber.

The big difference between the Texas and Idaho situations is that, in Idaho, the bark beetle outbreak has already killed trees on 125,000 acres. The Forest Service needs to take quick action to reduce the spread of these insects and, most importantly, reduce the risk of catastrophic wildfires.

The Federal Forests Emergency Act of 1999 will go far toward allowing the Forest Service to proceed rapidly in the current situation and provide for timely action for future emergencies.

Thank you.

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