wildlife and fish habitat, and other forest values are often diminished as a result of reduced forest resilience.

By thinning trees, we will restore resilience to much of the forest. It will appear more open and park-like, and will be more resistant to the destructive effects of drought, insects, disease, and wildfire. Timber management and prescribed fire will be used to increase forest resilience.

COLLECT AND SHARE INFORMATION

The final part of the strategy, a longterm step, is to collect and share information about forest health, and methods to improve the resilience of forest ecosystems.

Trees on the Boise Forest were not always overcrowded. In many areas in the past, trees were more openly spaced and there were many small openings, particularly in stands of ponderosa pine. The forest of the past was probably more resilient than today's. To guide future management we are attempting to describe the mix of tree species and densities for today's forest, that will approximate the resilience of the pre-20th Century forest. We are participating in a joint study to provide needed information to meet our difficult forest health challenge. The study is being led by American Forests, one of the nation's oldest conservation organizations. Other partners in the study include the University of Idaho,

the Idaho Department of Lands, the Forest Service Intermountain Research Station, and Boise Cascade Corporation. Actions being considered to improve understanding include short and long-term ecological studies, symposia to share knowledge and opinions, field tours, public meetings, and educational programs.

All the folks on the Boise Forest who manage and care for your great National Forest are committed to carrying out the Forest Service mission of "Caring for the Land and Serving People". We are implementing the Boise Forest Plan that you helped develop, to guide management in that spirit through this three-part strategy. We welcome your thoughts, suggestions, and most of all your partnership in meeting the current forest health challenge and in improving the resilience of the forest that provides so many benefits to the people of Idaho and America.

--Stephen P. Mealey Forest Supervisor



Forest Health Strategy



The healthy forest will appear more open and park-like.



Forest Service

United States

Department of

Agriculture

Boise National Forest The top resource management priority on the Boise National Forest is to improve forest health. The Forest is suffering from catastrophic insect, disease, and wildfire epidemics. Since 1986, destructive wildfires have burned an average of 56,000 acres per year. Over a half million trees have died since 1988 from bark beetle attacks, and trees on more than a quarter million acres have been defoliated by Douglasfir tussock moths. Poor forest health jeopardizes the sustainability of all resources.

The drought over the last seven years has contributed to the current forest health challenge. Many trees are closely spaced; there are simply too many for the available water. This lack of water has stressed overcrowded trees, reducing their resilience, and increasing their vulnerability to death from insects, diseases, and wildfires. If the drought trend continues, more will likely die. We have developed a threepart strategy to address this tough challenge:

- Salvage Dead and Dying Trees
- Thin Overcrowded Trees
- Collect and Share Information

SALVAGE DEAD AND DYING TREES

We will aggressively salvage dead and dying trees, mostly on lands suitable for commercial timber harvest (Figure 1).



Prompt harvest is needed to capture economic value, because dead trees deteriorate rapidly. Trees salvaged from the 1992 Foothills Fire are worth approximately 45 million dollars. If harvest had been delayed a year, they would have lost more than half their economic value. During the 1990's it is likely that 65 percent of all timber sold will have been killed by insects, diseases, and wildfires. Most "salvaged" trees will be cut in areas with existing roads, and more than 80 percent of proposed salvage sales will use helicopters which will minimize or eliminate negative impacts on water quality, wildlife and fish habitat, and visual resources. Salvage sales will not occur in roadless areas recommended by the Forest Service for wilderness. Salvage opportunities in other roadless areas are limited because less than one-fifth of the acres in such areas are suitable for commercial timber harvest (Figure 2). Salvage sales will reduce the risk of wildfires by removing dead and dying trees that provide fuel.



In areas with high insect concentrations, baited traps will be placed to capture and remove as many insects as possible. Many areas that have been salvage logged will be planted with conifer seedlings.

THIN OVERCROWDED TREES

The main part of the strategy is to improve forest health by reducing the number of trees competing for water. This long-term measure will require thinning living trees over many acres. Overcrowded trees on the Boise Forest lack "resilience", or the ability to recover from or adjust easily to environmental changes such as drought. Loss of resilience is especially harmful on lands suitable for commercial timber harvest, where trees lose both their economic and ecological values. Recreation, water quality,